

# City of Capitola Agenda

Mayor: Stephanie Harlan  
Vice Mayor: Sam Storey  
Council Members: Ed Bottorff  
Dennis Norton  
Michael Termini  
Treasurer: Kym DeWitt



## **CAPITOLA CITY COUNCIL REGULAR MEETING DECEMBER 13, 2012 - 7:00 PM**

### **CLOSED SESSION – 5:30 PM CITY MANAGER’S OFFICE**

*An announcement regarding the items to be discussed in Closed Session will be made in the City Hall Council Chambers prior to the Closed Session. Members of the public may, at this time, address the City Council on closed session items only.*

#### **CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION**

##### **Significant Exposure to litigation pursuant to subdivision (b) of Govt. Code §549569.9**

1. Santa Cruz County regarding the Noble Gulch pipe failure;
2. Save the Plastic Bag Coalition.

#### **CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION**

##### **(Govt. Code §54956.9)**

1. City of Capitola vs. Lexington Insurance Company, United States District Court, Northern District of California, Case # 5:12-cv-03428-LHK
2. Kevin Calvert, D.D.S. and Pamela Calvert vs. City of Capitola, et al. [Superior Court of the State of California for County of Santa Cruz, Case #CV 172804];
3. Katie Saldana vs. City of Capitola, et al. [Superior Court of the State of California for the County of Santa Cruz, Case #CV 172324];
4. Truck Insurance vs. the City of Capitola, et al. [Superior Court of the State of California for the County of Santa Cruz, Case #CV173071];
5. David Ross; Carousel Taffy Morro Bay, Inc.; Village Mouse dba; The Thomas Kinkade Gallery Capitola; Judith Ferro vs. the City of Capitola, et al. [Superior Court of the State of California for the County of Santa Cruz, Case #CV 173642];
6. American Alternative Insurance Corporation; Central Fire Protection District of Santa Cruz County vs. the City of Capitola, et al. [Superior Court of the State of California for the County of Santa Cruz, Case #CV173926];
7. California Capital Insurance Company [Superior Court of the State of California for the County of Santa Cruz, Case #CV173552];

- 8. Trustees of the John T. Kawahara and Barbara J. Kawahara Revocable Trust [Superior Court of the State of California for the County of Santa Cruz, Case #CV175216];
- 9. Schroedel et al. v. the City of Capitola, the Santa Cruz Superior Court Case No. CV 175684.

**CONFERENCE WITH REAL PROPERTY NEGOTIATOR Govt. Code § 54956.8**

Property: 420 Capitola Ave., Capitola; APN 035-141-35  
 Agency Negotiator: City Manager  
 Negotiating Parties: City of Capitola and On Air LLC  
 Under Negotiation: Property Negotiations

**REGULAR MEETING OF THE CAPITOLA CITY COUNCIL – 7:00 PM**

*All matters listed on the Regular Meeting of the Capitola City Council Agenda shall be considered as Public Hearings.*

**1. ROLL CALL AND PLEDGE OF ALLEGIANCE**

Council Members Michael Termini, Dennis Norton, Sam Storey, Ed Bottorff and Mayor Stephanie Harlan

**2. PRESENTATIONS**

Proclamation honoring the City’s former Police Canine Damien.

**3. REPORT ON CLOSED SESSION**

**4. ADDITIONS AND DELETIONS TO AGENDA**

**5. PUBLIC COMMENTS**

*Oral Communications allows time for members of the Public to address the City Council on any item not on the Agenda. Presentations will be limited to three minutes per speaker. Individuals may not speak more than once during Oral Communications. All speakers must address the entire legislative body and will not be permitted to engage in dialogue. All speakers are requested to print their name on the sign-in sheet located at the podium so that their name may be accurately recorded in the minutes. A MAXIMUM of 30 MINUTES is set aside for Oral Communications at this time.*

**6. COUNCIL/STAFF ANNOUNCEMENTS**

**7. BOARDS, COMMISSIONS AND COMMITTEES APPOINTMENTS**

*Note: Appointments will be made under General Government/Public Hearings **Item 9.A.** for City Council Representation on City and County/Multi-County Boards, Commissions, and Committees; and City Council appointments/reappointments of public members to various City Advisory Committees.*

**8. CONSENT CALENDAR**

*All items listed in the “Consent Calendar” will be enacted by one motion in the form listed below. There will be no separate discussion on these items prior to the time the Council votes on the action unless members of the public or the City Council request specific items to be discussed for separate review. Items pulled for separate discussion will be considered following General Government.*

*Note that all Ordinances which appear on the public agenda shall be determined to have been read by title and further reading waived.*

- A. Approval of City Check Register Reports dated November 16, November 21, and November 30, 2012.  
RECOMMENDED ACTION:  
Approve the City Check Register Reports.
- B. Receive Planning Commission Action Minutes for the Regular Meeting of December 6, 2012.  
RECOMMENDED ACTION:  
Receive Minutes.
- C. Consideration of a Resolution setting the interest rate for Tenant Security Deposits for 2013 at zero percent (0%).  
RECOMMENDED ACTION:  
Adopt Resolution.
- D. Consideration of a Resolution supporting the termination of the Southern Sea Otter Translocation Program.  
RECOMMENDED ACTION:  
No staff recommendation. Council discretion to consider adopting a Resolution supporting the termination of the Southern Sea Otter Translocation Program.
- E. Authorize the City Manager to recruit for the position of Community Development Director.  
RECOMMENDED ACTION:  
Authorize the City Manager to initiate the recruitment process.
- F. Consideration of authorizing the City Manager to recruit for the position of Supervising Accountant.  
RECOMMENDED ACTION:  
Authorize the City Manager to initiate the recruitment process.
- G. Consideration of approving a budget amendment pertaining to the City's participation in LED retrofit of streetlights with Pacific Gas and Electric Company.  
RECOMMENDED ACTION:  
Approve budget amendment.

## 9. GENERAL GOVERNMENT/PUBLIC HEARINGS

*General Government items are intended to provide an opportunity for public discussion of each item listed. The following procedure is followed for each General Government item: 1) Staff explanation; 2) Council questions; 3) Public comment; 4) Council deliberation; 5) Decision.*

- A. Review City Council representation on City and County/Multi-County Boards, Commissions, and Committees; and City Council appointments and reappointments of public members to various City Advisory Bodies  
RECOMMENDED ACTION:  
Council determination regarding appointments.
- B. Consideration of an Ordinance adding Section 8.07 of the Capitola Municipal Code regarding the reduction of single-use plastic and paper carryout bags; approving a Resolution adopting a Negative Declaration and make California Environmental Quality Act findings [1st Reading].

RECOMMENDED ACTION:

1. Approve the attached Resolution adopting a Negative Declaration and make California Environmental Quality Act (CEQA) findings relating to the adoption of an Ordinance for the Reduction of Single-Use Plastic and Paper Carryout Bags;
2. Pass the first reading of the proposed Ordinance adding Chapter 8.07 to the Capitola Municipal Code relating to the Reduction of Single-Use Plastic and Paper Carryout bags; and
3. Provide direction on a fee for paper carryout bags.

- C. Report on Measure O - Permanent City sales tax increase of one-quarter of one percent.

RECOMMENDED ACTION:

1. Prepare revisions to the City's Financial Management Policies to increase the Contingency Reserve funding level from 10% to 15%, and Emergency Reserve funding target from 5% to 10%;
2. Incorporate the budget changes outlined in this staff report into the mid-year budget process;
3. Prepare/approve amendments to the 5-Year Capital Improvement Program to prioritize near-term street maintenance projects.

- D. Consideration of the approval of Franchise Agreement Extension for four additional years with Greenwaste Recovery for refuse, recycling and yard waste services and rates for 2013.

RECOMMENDED ACTION:

1. Approve a Franchise Agreement Extension for four additional years with Greenwaste Recovery Inc. for Refuse, Recycling & Yard Waste Services, expiring December 31, 2022; and
2. Adopt the proposed Resolution Approving a Rate Schedule for Residential & Commercial Garbage Collection and Recycling in Capitola Effective January 1, 2013, superseding Resolution No. 3899, as authorized in the Franchise Agreement dated April 24, 2008.

- E. Adoption of the City of Capitola's Local Hazards Mitigation Plan

RECOMMENDED ACTION:

Adopt Local Hazards Mitigation Plan.

- F. Request to amend the Capitola Municipal Code Section 10.36.055 "Parking Meter Zones/Rates" to authorize rates and zones to be established by issuing a Coastal Permit. The Planning Commission held a public hearing on November 1, 2012 and unanimously recommended approval. Environmental Determination: Categorical Exemption. [1st Reading]

RECOMMENDED ACTION:

Introduce Ordinance.

## 10. COUNCIL/STAFF COMMUNICATIONS

## 11. CITY COUNCIL/TREASURER COMMENTS/COMMITTEE REPORTS

*City Council Members/City Treasurer may comment on matters of a general nature or identify issues for staff response or future council consideration. Council Members/Committee Representatives may present oral updates from standing committees at this time.*

**12. ADDITIONAL MATERIALS**

*Additional information submitted to the City Council after distribution of the agenda packet.*

**13. ADJOURNMENT**

Adjourn to the next Regular Meeting of the City Council on Thursday, January 10, 2013 at 7:00 PM, in the City Hall Council Chambers, 420 Capitola Avenue, Capitola, California.

**Note:** Any person seeking to challenge a City Council decision made as a result of a proceeding in which, by law, a hearing is required to be given, evidence is required to be taken, and the discretion in the determination of facts is vested in the City Council, shall be required to commence that court action within ninety (90) days following the date on which the decision becomes final as provided in Code of Civil Procedure §1094.6. Please refer to code of Civil Procedure §1094.6 to determine how to calculate when a decision becomes “final.” Please be advised that in most instances the decision become “final” upon the City Council’s announcement of its decision at the completion of the public hearing. Failure to comply with this 90-day rule will preclude any person from challenging the City Council decision in court.

**Notice regarding City Council:** The Capitola City Council meets on the 2nd and 4th Thursday of each month at 7:00 p.m. (or in no event earlier than 6:00 p.m.), in the City Hall Council Chambers located at 420 Capitola Avenue, Capitola.

**Agenda and Agenda Packet Materials:** The City Council Agenda and the complete agenda packet are available on the Internet at the City’s website: [www.ci.capitola.ca.us](http://www.ci.capitola.ca.us). Agendas are also available at the Capitola Post Office located at 826 Bay Avenue, Capitola.

**Agenda Document Review:** The complete agenda packet is available at City Hall and at the Capitola Branch Library, 2005 Wharf Road, Capitola, on the Monday prior to the Thursday meeting. Need more information? Contact the City Clerk’s office at 831-475-7300.

**Agenda Materials Distributed after Distribution of the Agenda Packet:** Pursuant to Government Code §54957.5, materials related to an agenda item submitted after distribution of the agenda packet are available for public inspection at the Reception Office at City Hall, 420 Capitola Avenue, Capitola, California, during normal business hours.

**Americans with Disabilities Act:** Disability-related aids or services are available to enable persons with a disability to participate in this meeting consistent with the Federal Americans with Disabilities Act of 1990. Assisted listening devices are available for individuals with hearing impairments at the meeting in the City Council Chambers. Should you require special accommodations to participate in the meeting due to a disability, please contact the City Clerk’s office at least 24-hours in advance of the meeting at 831-475-7300. In an effort to accommodate individuals with environmental sensitivities, attendees are requested to refrain from wearing perfumes and other scented products.

**Televised Meetings:** City Council meetings are cablecast “Live” on Charter Communications Cable TV Channel 8 and are recorded to be replayed at 12:00 Noon on the Saturday following the meetings on Community Television of Santa Cruz County (Charter Channel 71 and Comcast Channel 25). Meetings are streamed “Live” on the City’s website at [www.ci.capitola.ca.us](http://www.ci.capitola.ca.us) by clicking on the Home Page link “View Capitola Meeting Live On-Line.” Archived meetings can be viewed from the website at anytime.

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## CITY COUNCIL AGENDA REPORT

### MEETING OF DECEMBER 12, 2012

FROM: FINANCE DEPARTMENT  
SUBJECT: CITY CHECK REGISTER REPORT

**RECOMMENDED ACTION:** Approve the attached Check Register Reports for Nov 16, Nov 21, and Nov 30, 2012.

**DISCUSSION:** Check Registers are attached for:

Date	Starting Check #	Ending Check #	Total Checks/EFT	Amount
11/16/12	71427	71475	49	\$60,828.39
11/21/12	71476	71531	56	\$68,114.76
11/30/2012	71532	71573	42	\$120,909.44

The check register of Nov 9, 2012 ended with check #71426.

Following is a list of checks issued for more than \$10,000.00, and a brief description of the expenditure:

Check	Issued to:	Dept.	Purpose	Amount
71440	Design, Comm & Environ	CDD	General Plan Update	\$16,874.85
71514	SCC Auditor-Controller	PD	Citation Surcharges, Oct2012	\$11,363.00
71533	Atchison, Barisone, et al	CM	Oct 2012 legal services	\$11,960.98
71536	CalPERS Health Ins.	CM	Health Ins, Employee Funded	\$54,315.50
71555	PG&E	PW	Monthly Electric	\$13,524.03

**ATTACHMENTS:**

1. Check Register for Nov 16, 2012
2. Check Register for Nov 21, 2012
3. Check Register for Nov 30, 2012

Report Prepared By: Linda Benko  
AP Clerk

Reviewed and Forwarded  
by City Manager:

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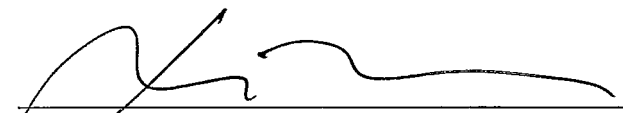
Checks dated 11/16/12 numbered 71427 to 71475 for a total of \$60,828.39 have been reviewed and authorized for distribution by the City Manager and City Treasurer.

As of 11/16/12 the unaudited cash balance is \$1,639,521

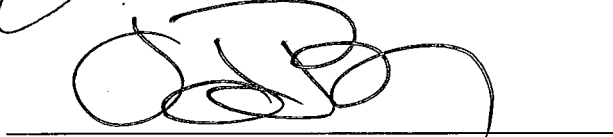
**CASH POSITION - CITY OF CAPITOLA 11/16/12**


	<u>Net Balance</u>
General Fund	(361,024)
Contingency Reserve Fund	671,646
Worker's Comp. Ins. Fund	207,160
Self Insurance Liability Fund	199,336
Stores Fund	(1,027)
Information Technology Fund	70,281
Equipment Replacement	119,706
Compensated Absences Fund	24,853
Public Employee Retirement - PERS	206,254
Open Space Fund	256
Capital Improvement Projects	502,079
TOTAL GENERAL FUND & COUNCIL DESIGNATED FUNDS	<u><u>1,639,521</u></u>

The Emergency Reserve Fund balance is \$289,295.54 and is not included above.

  
 \_\_\_\_\_  
 Jamie Goldstein, City Manager

11/16/12  
 \_\_\_\_\_  
 Date

  
 \_\_\_\_\_  
 Jacques J.J. Bertrand, City Treasurer

  
 \_\_\_\_\_  
 Date

## City Checks Issued 11/16/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount
71427	11/16/2012	Open			A TOOL SHED	\$247.32
	Invoice		Date	Description		Amount
	867547-5		11/01/2012	Trencher		\$247.32
71428	11/16/2012	Open			ADVANTAGE CREDIT INC.	\$20.00
	Invoice		Date	Description		Amount
	186515		10/31/2012	Credit check, New Hire-PD		\$20.00
71429	11/16/2012	Open			ALLSAFE LOCK COMPANY	\$231.05
	Invoice		Date	Description		Amount
	44126		10/31/2012	Gym lock		\$150.06
	44199		11/13/2012	Keys for Pac Cove 45, 47, 78		\$80.99
71430	11/16/2012	Open			B & B SMALL ENGINE REPAIR	\$305.39
	Invoice		Date	Description		Amount
	273803		10/25/2012	Mower Blades		\$39.51
	274089		10/31/2012	Blower repair		\$155.10
	274137		11/01/2012	Blower repair		\$110.78
71431	11/16/2012	Open			BAY PLUMBING SUPPLY INC.	\$26.73
	Invoice		Date	Description		Amount
	S1264126.001		10/31/2012	Hand shower - CPD		\$26.73
71432	11/16/2012	Open			BEN'S MOTORCYCLE WORKS	\$138.01
	Invoice		Date	Description		Amount
	1040		11/02/2012	Brakes, PD Harley		\$138.01
71433	11/16/2012	Open			BOWMAN & WILLIAMS, INC.	\$7,450.00
	Invoice		Date	Description		Amount
	7299		11/05/2012	Professional Services Oct 1- Oct 31, 2012		\$7,450.00
				Fund 1200, CIP		
71434	11/16/2012	Open			CALIF. PEACE OFFICERS ASSOC.	\$125.00
	Invoice		Date	Description		Amount
	Chief-2013		11/07/2012	2013 renewal for Chief		\$125.00
71435	11/16/2012	Open			CAPITOLA PEACE OFFICERS ASSOC.	\$769.00
	Invoice		Date	Description		Amount
	POA11-16-12		11/14/2012	POA Dues, Employee Funded		\$769.00
71436	11/16/2012	Open			COASTAL WATERSHED COUNCIL	\$3,628.83
	Invoice		Date	Description		Amount
	1173		10/31/2012	Soquel Creek Monitoring-Water Quality		\$2,022.38
	1172		10/31/2012	Stormwater Education & Outreach Service		\$1,606.45
71437	11/16/2012	Open			CRUZIO THE INTERNET STORE INC.	\$39.95
	Invoice		Date	Description		Amount
	28750-54		11/02/2012	Acct 28750 Dec Website Hosting		\$39.95
				Fund 1313, General Plan Update		

# City Checks Issued 11/16/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount
71438	11/16/2012	Open			CVS PHARMACY INC.	\$11.48
	Invoice		Date	Description		Amount
	Smt-09-12		10/09/2012	Credit for returned Items		(\$6.47)
	20121002		10/02/2012	Office supplies-PD		\$17.95
71439	11/16/2012	Open			D & G SANITATION	\$77.76
	Invoice		Date	Description		Amount
	199443		10/31/2012	PacCove fencing		\$77.76
71440	11/16/2012	Open			DESIGN, COMMUNITY & ENVIRONME	\$16,874.85
	Invoice		Date	Description		Amount
	49747		09/30/2012	Professional Services 9/1-9/30/12		\$16,874.85
				Fund 1313, Gen Plan Update		
71441	11/16/2012	Open			EVANS, KRAIG	\$544.60
	Invoice		Date	Description		Amount
	66198282		11/04/2012	Evans motor school lodging		\$544.60
71442	11/16/2012	Open			EWING IRRIGATION	\$139.04
	Invoice		Date	Description		Amount
	5570532		10/25/2012	Irrigation supplies		\$139.04
71443	11/16/2012	Open			FERRASCI-HARP, AMY	\$625.00
	Invoice		Date	Description		Amount
	16		11/03/2012	Oct2012 Business Promotion, BIA Funded		\$625.00
				Fund 1321, BIA		
71444	11/16/2012	Open			FLYERS ENERGY, LLC	\$4,429.47
	Invoice		Date	Description		Amount
	12-788132		11/01/2012	247 Gal Ethanol		\$940.23
	12-788133		11/01/2012	100 Gal Diesel		\$415.74
	12-786299		11/01/2012	55 Gal Oil		\$394.42
	12-785922		10/26/2012	135 gal Diesel		\$556.80
	12-785921		10/26/2012	501 Gal Ethanol		\$2,122.28
71445	11/16/2012	Open			GRANITE ROCK COMPANY	\$744.38
	Invoice		Date	Description		Amount
	729010		10/23/2012	Granitepatch		\$744.38
				Fund 1310, Gas Tax		
71446	11/16/2012	Open			HOWARD, CHARLIE	\$1,480.00
	Invoice		Date	Description		Amount
	Howard-Oct4		11/12/2012	FY 12/13 Mechanic		\$750.00
	11/5-11/9/12		11/12/2012	FY 12/13 Mechanic		\$730.00
71447	11/16/2012	Open			ICMA RETIREMENT TRUST 457	\$4,331.93
	Invoice		Date	Description		Amount
	ICMA11-16-12		11/14/2012	Retirement Contribution, Employee Funder		\$4,331.93
71448	11/16/2012	Open			JAMES P ALLEN & ASSOC	\$675.00
	Invoice		Date	Description		Amount
	121107		11/07/2012	Consulting Arborists Services-1375 49th A		\$675.00

## City Checks Issued 11/16/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount
71449	11/16/2012	Open			JIM CLARK BACKFLOW	\$100.00
	Invoice		Date	Description		Amount
	102412		10/24/2012	Backflow testing		\$100.00
71450	11/16/2012	Open			KBA Docusys	\$144.40
	Invoice		Date	Description		Amount
	158376		11/01/2012	Rec Copier Canon IR1750, Nov-Dec2012		\$25.89
	158375		11/03/2012	Rec Copier Canon IR1750, Oct-Nov2012		\$25.89
	158374		11/03/2012	Rec Copier Canon IR1750, Sep-Oct2012		\$25.89
	158373		11/03/2012	Rec Copier Canon IR1750, Aug-Sep2012		\$66.73
71451	11/16/2012	Open			LEWIS TREE SERVICE INC.	\$1,600.00
	Invoice		Date	Description		Amount
	20080		10/24/2012	Tree trimming Cap Library		\$1,600.00
71452	11/16/2012	Open			MARCHESE, HELEN	\$411.81
	Invoice		Date	Description		Amount
	Nov12		11/14/2012	Replenish Petty Cash fund		\$411.81
71453	11/16/2012	Open			MID-COUNTY AUTO SUPPLY	\$13.94
	Invoice		Date	Description		Amount
	321511		11/06/2012	Carb cleaner		\$13.94
71454	11/16/2012	Open			MILLER'S TRANSFER & STORAGE CO	\$234.45
	Invoice		Date	Description		Amount
	83852		11/02/2012	Records Mgmt: Nov Storage, Oct Handling		\$234.45
71455	11/16/2012	Open			ORCHARD SUPPLY HARDWARE	\$4.31
	Invoice		Date	Description		Amount
	6013-4090953		10/26/2012	Putty knife		\$4.31
71456	11/16/2012	Open			PRAXAIR DISTRIBUTION INC.	\$60.00
	Invoice		Date	Description		Amount
	44326795		10/20/2012	Gases, Corp Yd		\$60.00
71457	11/16/2012	Open			RBF CONSULTING	\$896.00
	Invoice		Date	Description		Amount
	12090018		10/26/2012	Develop Local Hazard Mitigation Plan Fund 1350, CDBG Grants		\$896.00
71458	11/16/2012	Open			REPUBLIC ITS INC.	\$1,971.68
	Invoice		Date	Description		Amount
	400086838		10/16/2012	FY 12/13 Signal Maintenance Fund 1310, Gas Tax		\$1,971.68
71459	11/16/2012	Open			ROYAL WHOLESALE ELECTRIC	\$312.86
	Invoice		Date	Description		Amount
	7719-565077		10/24/2012	Light bulbs - Perry Park		\$24.26
	7719-565402		10/31/2012	Jade St. electrical		\$94.83
	7719-565085		10/24/2012	LED Light - Perry Park		\$193.77

# City Checks Issued 11/16/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount
71460	11/16/2012 Invoice CEDS12-13	Open	Date 10/22/2012	Description Per MOU, City Share of Econ Dev Strateg	SCC HUMAN SERVICES DEPT	\$1,978.00
71461	11/16/2012 Invoice SCAN-Nov2012	Open	Date 11/01/2012	Description Nov 2012 open query-PD	SCC INFORMATION SERVICES	\$517.24
71462	11/16/2012 Invoice 13053	Open	Date 11/06/2012	Description Fingerprinting, New Employee	SCC OFFICE OF EDUCATION	\$30.00
71463	11/16/2012 Invoice 03454134-1	Open	Date 10/16/2012	Description SCC Sanitation District Tax-Library	SCC TAX COLLECTOR	\$658.51
71464	11/16/2012 Invoice 03514135-1	Open	Date 10/16/2012	Description SCC Sanitation District Tax-City Hall	SCC TAX COLLECTOR	\$890.53
71465	11/16/2012 Invoice 03610137-1	Open	Date 10/16/2012	Description SCC Sanitation District Tax-NB Gym	SCC TAX COLLECTOR	\$229.98
71466	11/16/2012 Invoice 03407201-1	Open	Date 10/16/2012	Description SCC Sanitation District Tax-Wharf Fund 1311, Wharf Fund	SCC TAX COLLECTOR	\$2,465.28
71467	11/16/2012 Invoice 03526207-1	Open	Date 10/16/2012	Description SCC Sanitation District Tax-Ésplanade	SCC TAX COLLECTOR	\$3,554.35
71468	11/16/2012 Invoice Nov 2012	Open	Date 11/01/2012	Description Nov 2012 thru Nov 2013, PD	SANTA CRUZ SENTINEL	\$210.60
71469	11/16/2012 Invoice 17223	Open	Date 11/01/2012	Description Nov 2012 Admin Fee	TLC ADMINISTRATORS, INC.	\$175.00
71470	11/16/2012 Invoice 954791442	Open	Date 11/03/2012	Description shipping-PD	UNITED PARCEL SERVICE	\$74.84
71471	11/16/2012 Invoice PARS11-16-12	Open	Date 11/14/2012	Description Retirement Plan Contr, Employee Funded	US Bank Institutional Trust-Western Reg	\$147.82
71472	11/16/2012 Invoice 2013-00000346	Open	Date 11/08/2012	Description Tree Permit Deposit Refund #12-128	Johnson, Judith	\$500.00

**City Checks Issued 11/16/2012**

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount	
71473	11/16/2012 Invoice 2013-00000349	Open	Date 11/09/2012	Description Refund Memorial Bench	Klassen, Sandra	\$632.00 \$632.00	
71474	11/16/2012 Invoice 20121117	Open	Date 11/09/2012	Description Right On Track Performance Artist	McCain, Bill	\$60.00 \$60.00	
71475	11/16/2012 Invoice 20121117-2	Open	Date 11/09/2012	Description Right On Track Performance Artist	Summer, Dale	\$40.00 \$40.00	
Check Totals:				Count	49	Total	\$60,828.39


Checks dated 11/21/12 numbered 71476 to 71531 for a total of \$68,114.76 have been reviewed and authorized for distribution by the City Manager and City Treasurer.

As of 11/21/12 the unaudited cash balance is \$1,818,526


**CASH POSITION - CITY OF CAPITOLA 11/21/12**

	<u>Net Balance</u>
General Fund	(161,207)
Contingency Reserve Fund	671,646
Worker's Comp. Ins. Fund	207,160
Self Insurance Liability Fund	182,635
Stores Fund	(1,169)
Information Technology Fund	66,313
Equipment Replacement	119,706
Compensated Absences Fund	24,853
Public Employee Retirement - PERS	206,254
Open Space Fund	256
Capital Improvement Projects	502,079
TOTAL GENERAL FUND & COUNCIL DESIGNATED FUNDS	<u><u>1,818,526</u></u>

The Emergency Reserve Fund balance is \$289,295.54 and is not included above.

  
 \_\_\_\_\_  
 Jamie Goldstein, City Manager

11/21/12  
 \_\_\_\_\_  
 Date

  
 \_\_\_\_\_  
 Jacques J.J. Bertrand, City Treasurer

12/5/10  
 \_\_\_\_\_  
 Date

## City Checks Issued 11/21/2012

Number	Date	Status	Void Reason	Reconciled/ Voided Date	Payee Name	Transaction Amount
71476	11/21/2012	Open			ACCURATE RUBBER STAMP	\$33.37
	Invoice		Date	Description	Amount	
	32781		11/07/2012	rubber stamp-PD	\$33.37	
71477	11/21/2012	Open			AT&T	\$15.43
	Invoice		Date	Description	Amount	
	674-Nov12		11/01/2012	Nov12 Long Distance Service	\$7.58	
	624-Nov12		11/01/2012	Nov 12 City Hall Long Distance Service	\$7.85	
71478	11/21/2012	Open			ATS SPORTS	\$158.45
	Invoice		Date	Description	Amount	
	33071		11/14/2012	Tennis roller & squeege	\$158.45	
71479	11/21/2012	Open			AUTOMATED TEST ASSOCIATES	\$25.00
	Invoice		Date	Description	Amount	
	39270		11/22/2012	Wharf Meter Reading-Nov 2012	\$25.00	
71480	11/21/2012	Open			BANK OF AMERICA	\$2,139.17
	Invoice		Date	Description	Amount	
	Oct2012		11/06/2012	Charges to City Credit Card, Oct 2012	\$2,139.17	
71481	11/21/2012	Open			BATTERIES PLUS	\$60.46
	Invoice		Date	Description	Amount	
	231874		10/10/2012	Laptop Batteries Fund 2211, IT	\$60.46	
71482	11/21/2012	Open			BAY AREA POLYGRAPH	\$225.00
	Invoice		Date	Description	Amount	
	424		11/13/2012	Records Clerk Evaluation	\$225.00	
71483	11/21/2012	Open			CA DEPARTMENT OF JUSTICE	\$64.00
	Invoice		Date	Description	Amount	
	937536		11/06/2012	Oct 2012 Fingerprinting	\$64.00	
71484	11/21/2012	Open			CALE AMERICA INC.	\$770.00
	Invoice		Date	Description	Amount	
	127849		10/30/2012	Oct 2012 Meter Maint.	\$770.00	
71485	11/21/2012	Open			CALIF COAST UNIFORM COMPANY	\$383.10
	Invoice		Date	Description	Amount	
	866		10/26/2012	Uniform Exp, Sandretti-PD	\$383.10	
71486	11/21/2012	Open			CALIF SOCIETY OF MUNICIPAL FINAN	\$220.00
	Invoice		Date	Description	Amount	
	Saldana-2013		11/01/2012	Annual Dues, Saldana, 2013	\$110.00	
	2013-Hannah		11/01/2012	Membership, Hannah	\$110.00	
71487	11/21/2012	Open			CHANTICLEER VET HOSPITAL	\$964.90
	Invoice		Date	Description	Amount	
	14977-Oct 2012		11/01/2012	Animal Control Expense, Oct 2012	\$964.90	



# City Checks Issued 11/21/2012

Number	Date	Status	Void Reason	Reconciled/ Voided Date	Payee Name	Transaction Amount
71488	11/21/2012	Open			CLEAN BUILDING MAINTENANCE	\$3,981.96
	Invoice 10375		Date 10/31/2012	Description Oct2012 Cleaning Service Fund 1000, General.Fund=\$3764.46 Fund 1311, Wharf Fund=\$217.50		Amount \$3,981.96
71489	11/21/2012	Open			CRYSTAL SPRINGS WATER CO.	\$124.50
	Invoice 60094-Oct2012		Date 10/31/2012	Description Oct 2012 Drinking Water		Amount \$124.50
71490	11/21/2012	Open			FLYERS ENERGY, LLC	\$2,229.04
	Invoice 12-790422 12-790421		Date 11/08/2012 11/08/2012	Description 110 Gal Diesel 485 Gal Ethanol		Amount \$434.29 \$1,794.75
71491	11/21/2012	Open			Geo. H. Wilson, Inc.	\$285.00
	Invoice 000102023		Date 11/14/2012	Description September Quarterly PD HVAC Maintenanc		Amount \$285.00
71492	11/21/2012	Open			JAMES P ALLEN & ASSOC	\$270.00
	Invoice 1111512		Date 11/15/2012	Description Consulting Arborists Services-158 Cortez		Amount \$270.00
71493	11/21/2012	Open			KBA Docusys	\$97.37
	Invoice 158001		Date 11/01/2012	Description City Hall Copier, IR2525, Nov12-Jan13 Fund 2211, IT		Amount \$97.37
71494	11/21/2012	Open			KING'S PAINT AND PAPER, INC.	\$192.27
	Invoice A169848		Date 11/05/2012	Description Paint		Amount \$192.27
71495	11/21/2012	Open			LOOMIS	\$883.38
	Invoice 11143135		Date 10/31/2012	Description armored car service		Amount \$883.38
71496	11/21/2012	Open			MANPOWER	\$490.50
	Invoice 24822018		Date 11/04/2012	Description Temp receptionist		Amount \$490.50
71497	11/21/2012	Open			MEGAPATH COVAD COMMUNICATION	\$646.51
	Invoice 48211794		Date 10/28/2012	Description Internet Access Fund 2211, IT		Amount \$646.51

## City Checks Issued 11/21/2012

Number	Date	Status	Void Reason	Reconciled/ Voided Date	Payee Name	Transaction Amount
71498	11/21/2012	Open			MID-COUNTY AUTO SUPPLY	\$1,069.37
	Invoice		Date	Description		Amount
	322365		11/14/2012	auto parts-Park's Mower Trailer		\$9.36
	321821		11/09/2012	auto parts-PW Grinder		\$102.67
	321558		11/06/2012	auto parts-PD KZ-1000 Motorcycle		\$433.64
	321108		11/02/2012	auto parts-PD ESO II		\$21.64
	321545		11/06/2012	auto parts-PD 111		\$4.03
	321654		11/07/2012	auto parts-PD Trailer		\$11.23
	321589		11/07/2012	auto parts-PD 111		\$11.86
	321588		11/07/2012	auto parts-Shop truck F-150		\$38.03
	321698		11/08/2012	auto parts-PW Shop F-150		\$7.24
	320997		11/01/2012	auto parts-PD ESO II		\$46.03
	320994		11/01/2012	auto parts-PD ESO II		\$35.87
	321028		11/01/2012	auto parts-PD 111		\$11.64
	321062		11/01/2012	auto parts-PD111		\$2.17
	321052		11/01/2012	auto parts-PD ESO II		\$169.70
	322479		11/15/2012	auto parts-Sweeper-Fund 1310, Gas Tax		\$164.26
71499	11/21/2012	Open			MISSION LINEN SUPPLY	\$774.54
	Invoice		Date	Description		Amount
	Oct2012		11/01/2012	Oct2012 Mat & Uniform Cleaning Service		\$774.54
71500	11/21/2012	Open			MONTEREY BAY AREA SELF INS AUTI	\$2,371.40
	Invoice		Date	Description		Amount
	MBA10-1112a		10/30/2012	Liability Claim Payments-O'Leary Fund 2213, Self-Ins Liability		\$2,371.40
71501	11/21/2012	Open			MONTEREY BAY AREA SELF INS AUTI	\$2,934.70
	Invoice		Date	Description		Amount
	MBA11-0715b		10/31/2012	Liability Claim Payments-Alexander Fund 2213, Self-Ins Liability		\$2,934.70
71502	11/21/2012	Open			MONTEREY BAY AREA SELF INS AUTI	\$2,720.70
	Invoice		Date	Description		Amount
	MBA11-0715c		10/30/2012	Liability Claim Payments-Alexander Fund 2213, Self-Ins Liability		\$2,720.70
71503	11/21/2012	Open			MONTEREY BAY AREA SELF INS AUTI	\$109.60
	Invoice		Date	Description		Amount
	MBA11-0503b		10/30/2012	Liability Claim Payments-Larson Fund 2213, Self-Ins Liability		\$109.60
71504	11/21/2012	Open			MONTEREY BAY AREA SELF INS AUTI	\$2,113.90
	Invoice		Date	Description		Amount
	MBA10-1112b		10/30/2012	Liability Claim Payments-O'Leary Fund 2213, Self-Ins Liability		\$2,113.90
71505	11/21/2012	Open			MONTEREY BAY AREA SELF INS AUTI	\$6,450.00
	Invoice		Date	Description		Amount
	MBA10-1112c		10/30/2012	Claim Settlement, O'Leary Fund 2213, Self-Ins Liability		\$6,450.00
71506	11/21/2012	Open			MORRISON, EDWARD	\$2,500.00
	Invoice		Date	Description		Amount
	5		11/21/2012	FY 12/13 Inspections		\$2,500.00

# City Checks Issued 11/21/2012

Number	Date	Status	Void Reason	Reconciled/ Voided Date	Payee Name	Transaction Amount
71507	11/21/2012	Open			MUNISERVICES, LLC	\$1,139.85
	Invoice		Date	Description		Amount
	29046		10/31/2012	Sales Tax Reporting		\$1,139.85
71508	11/21/2012	Open			NEW WORLD SYSTEMS	\$540.00
	Invoice		Date	Description		Amount
	23647		10/31/2012	System Upgrade Services Fund 2211, IT		\$540.00
71509	11/21/2012	Open			NORTH BAY FORD	\$438.93
	Invoice		Date	Description		Amount
	231619		11/14/2012	auto parts		\$47.86
	231367		11/01/2012	auto parts		\$391.07
71510	11/21/2012	Open			ORCHARD SUPPLY HARDWARE	\$325.82
	Invoice		Date	Description		Amount
	6005-2296540		10/31/2012	Pick handle		\$21.64
	6005-8196631		11/01/2012	Irrigation supplies		\$33.85
	6011-3034265		11/05/2012	White spray paint		\$31.34
	6011-3034308		11/05/2012	Carb cleaner		\$27.22
	6013-3522117		11/06/2012	Wheel		\$47.61
	6014-7823320		11/06/2012	Misc.		\$21.63
	6008-272532		10/29/2012	Rec Supplies		\$43.19
	6010-4763936		11/14/2012	Rec Supplies		\$10.27
	6013-1232477		11/09/2012	auto parts		\$40.40
	6011-4794939		11/09/2012	auto parts		\$48.67
71511	11/21/2012	Open			PACIFIC VETERINARY SPECIALISTS	\$451.00
	Invoice		Date	Description		Amount
	240422		11/05/2012	Animal Control Exp		\$164.50
	26490-Oct12		10/31/2012	Oct 2012 Animal Control Exp		\$286.50
71512	11/21/2012	Open			PALACE ART & OFFICE SUPPLIES	\$855.41
	Invoice		Date	Description		Amount
	983225		10/30/2012	Office supplies-PD		\$300.78
	983828		11/02/2012	Paper-City Hall-Fund 2210, Stores		\$185.76
	983717		11/02/2012	paper-PD		\$46.44
	18444		11/02/2012	Chair-PD		\$226.24
	984452		11/07/2012	Office supplies		\$96.19
71513	11/21/2012	Open			PITNEY BOWES INC.	\$146.14
	Invoice		Date	Description		Amount
	597106		11/14/2012	Postage meter rental 12/16/12-3/15/13 RE		\$146.14
71514	11/21/2012	Open			SCC AUDITOR-CONTROLLER	\$11,363.00
	Invoice		Date	Description		Amount
	Surcharges-Oct12		11/15/2012	Citation Surcharge pass-thrus, Oct2012		\$11,363.00
71515	11/21/2012	Open			SCC DEPT OF PUBLIC WORKS	\$28.00
	Invoice		Date	Description		Amount
	20121106		11/06/2012	September & October maps, prints, copies		\$28.00

## City Checks Issued 11/21/2012

Number	Date	Status	Void Reason	Reconciled/ Voided Date	Payee Name	Transaction Amount
71516	11/21/2012	Open			SCC INFORMATION SERVICES	\$1,326.80
	Invoice		Date	Description		Amount
	Q3-2012		11/01/2012	Radio Repair Exp-PD		\$1,326.80
71517	11/21/2012	Open			SANTA CRUZ SENTINEL	\$658.84
	Invoice		Date	Description		Amount
	2040516-Oct12		11/15/2012	Oct Advertising Exp		\$658.84
71518	11/21/2012	Open			SIRCHIE	\$135.31
	Invoice		Date	Description		Amount
	99826-in		10/26/2012	Nark kits		\$135.31
71519	11/21/2012	Open			SIRE Technologies	\$2,253.87
	Invoice		Date	Description		Amount
	197494		10/31/2012	Travel Exp for SIRE implementation Fund 1211, IT		\$2,253.87
71520	11/21/2012	Open			STAPLES	\$183.59
	Invoice		Date	Description		Amount
	76691		10/11/2012	Computer Components Fund 1211, IT		\$183.59
71521	11/21/2012	Open			STATE WATER RESOURCES CONTRC	\$204.25
	Invoice		Date	Description		Amount
	WR EF 094-005859		11/13/2012	Additional Fees for 07/01/12-06/30/13		\$204.25
71522	11/21/2012	Open			SUMMIT UNIFORM CORP	\$1,790.35
	Invoice		Date	Description		Amount
	48817		10/24/2012	Uniform Exp- Irao		\$214.58
	48831		10/25/2012	Uniform Exp-Evans		\$1,575.77
71523	11/21/2012	Open			SWIFT, STEVE	\$12.13
	Invoice		Date	Description		Amount
	HD-20121016		11/15/2012	Reimb Paint Purchase from Home Depot		\$12.13
71524	11/21/2012	Open			TLC ADMINISTRATORS, INC.	\$2,000.00
	Invoice		Date	Description		Amount
	Flex-Nov12		11/15/2012	Replenish Flex Cash-Employee Funded		\$2,000.00
71525	11/21/2012	Open			UNITED PARCEL SERVICE	\$6.31
	Invoice		Date	Description		Amount
	954791452		11/10/2012	Shipping-PD		\$6.31
71526	11/21/2012	Open			UNITED STATES POSTAL SERVICE	\$5,300.00
	Invoice		Date	Description		Amount
	6484-W13		11/14/2012	Postage for Winter 2013 brochure mailing		\$5,300.00
71527	11/21/2012	Open			UPEC LIUNA LOCAL 792	\$1,856.50
	Invoice		Date	Description		Amount
	UPEC-11-16-12		11/14/2012	Union Dues, Employee Funded		\$1,856.50

# City Checks Issued 11/21/2012

Number	Date	Status	Void Reason	Reconciled/ Voided Date	Payee Name	Transaction Amount
71528	11/21/2012	Open			US BANCORP EQUIPMENT FINANCE,	\$295.04
	Invoice		Date	Description		Amount
	214378473		10/19/2012	Copier Lease. Contract 500-0332356		(\$43.74)
	215544396		11/04/2012	Copier Lease, Canon IR2525, Contract 500		\$80.12
	215544511		11/04/2012	PD Copier Lease, Konica Minolta C452, C4		\$258.66
71529	11/21/2012	Open			WITMER-TYSON IMPORTS INC.	\$500.00
	Invoice		Date	Description		Amount
	T9490		11/01/2012	Oct 2012 K-9 training		\$500.00
71530	11/21/2012	Open			Anderson, Bob	\$500.00
	Invoice		Date	Description		Amount
	2013-00000351		11/19/2012	Tree Permit Deposit Refund #12-102		\$500.00
71531	11/21/2012	Open			Montonye, Bob and Mary	\$500.00
	Invoice		Date	Description		Amount
	2013-00000350		11/15/2012	Tree Permit Deposit Refund #12-095		\$500.00
Check Totals:				Count	56	Total \$68,114.76

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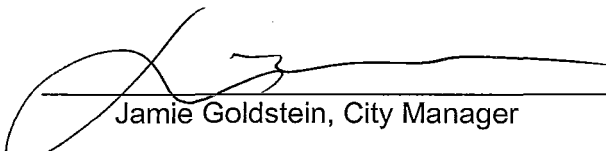
Checks dated 11/30/12 numbered 71532 to 71573 for a total of \$120,909.44 have been reviewed and authorized for distribution by the City Manager and City Treasurer.

As of 11/30/12 the unaudited cash balance is \$1,654,418


**CASH POSITION - CITY OF CAPITOLA 11/30/12**

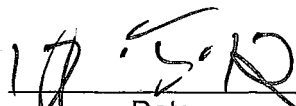
	<u>Net Balance</u>
General Fund	(320,648)
Contingency Reserve Fund	671,646
Worker's Comp. Ins. Fund	207,160
Self Insurance Liability Fund	182,635
Stores Fund	(1,169)
Information Technology Fund	66,399
Equipment Replacement	119,706
Compensated Absences Fund	20,098
Public Employee Retirement - PERS	206,254
Open Space Fund	256
Capital Improvement Projects	502,079
TOTAL GENERAL FUND & COUNCIL DESIGNATED FUNDS	<u>1,654,418</u>

The Emergency Reserve Fund balance is \$289,295.54 and is not included above.

  
 \_\_\_\_\_  
 Jamie Goldstein, City Manager

11/30/12  
 \_\_\_\_\_  
 Date

  
 \_\_\_\_\_  
 Jacques J.J. Bertrand, City Treasurer

  
 \_\_\_\_\_  
 Date

## City Checks Issued 11/30/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount
71532	11/30/2012	Open			ADT SECURITY SERVICES, INC.	\$256.41
	Invoice		Date	Description		Amount
	84091909		11/10/2012	422 Capitola Ave thru 2/18/13		\$139.54
	84091916		11/10/2012	38th Ave. Thru 2/28/13		\$116.87
71533	11/30/2012	Open			ATCHISON, BARISONE, & CONDOTTI	\$11,960.98
	Invoice		Date	Description		Amount
	Oct2012		10/31/2012	Oct 2012 Legal Services		\$11,960.98
71534	11/30/2012	Open			CALIFORNIA COAST UNIFORM CO.	\$189.01
	Invoice		Date	Description		Amount
	865a		10/26/2012	sewing on patches		\$60.25
	905		11/14/2012	hat embroidery		\$69.28
	909		11/16/2012	Uniform Exp, Thompson		\$59.48
71535	11/30/2012	Open			CALIF. LAW ENFORCEMENT ASSOC.	\$514.50
	Invoice		Date	Description		Amount
	Dec2012		11/20/2012	Dec 2012 Long Term Disability Ins		\$514.50
71536	11/30/2012	Open			CalPERS Health Insurance	\$54,315.50
	Invoice		Date	Description		Amount
	Dec2012		11/26/2012	Dec12 health Ins premium, employee fund		\$54,315.50
71537	11/30/2012	Open			CAPITOLA PEACE OFFICERS ASSOC.	\$769.00
	Invoice		Date	Description		Amount
	POA-11-30-12		11/26/2012	POA Dues, Employee Funded		\$769.00
71538	11/30/2012	Open			CLEAN SOURCE	\$1,185.59
	Invoice		Date	Description		Amount
	1289930		11/06/2012	Cleaning supplies		\$1,185.59
71539	11/30/2012	Open			COMMUNITY TELEVISION OF SCC	\$4,786.00
	Invoice		Date	Description		Amount
	1786		09/30/2012	PEG Fees, Jul-Sep2012		\$4,786.00
				Fund 1320, Public Educ & Gov't		
71540	11/30/2012	Open			CRAIG FEENEY, NAPCO	\$189.50
	Invoice		Date	Description		Amount
	6		11/19/2012	Wharf House heater		\$189.50
				Fund 1311, Wharf Fund		
71541	11/30/2012	Open			FIRST ALARM	\$195.00
	Invoice		Date	Description		Amount
	585996		11/15/2012	Dec12-Feb13 Alarm Monitoring, Jade St C		\$195.00
71542	11/30/2012	Open			FLYERS ENERGY, LLC	\$2,293.42
	Invoice		Date	Description		Amount
	12-792518		11/15/2012	510 Gal Ethanol		\$1,903.01
	12-792519		11/15/2012	100 Gal Diesel		\$390.41
71543	11/30/2012	Open			GUMBINER & ESKRIDGE LLP	\$8,945.42
	Invoice		Date	Description		Amount
	11278		11/14/2012	Legal Services, Insurance Claims		\$8,945.42



# City Checks Issued 11/30/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount
71544	11/30/2012	Open			HOWARD, CHARLIE	\$1,260.00
	Invoice		Date	Description		Amount
	Howard-Nov3		11/26/2012	FY 12/13 Mechanic		\$690.00
	Howard-Nov4		11/26/2012	FY 12/13 Mechanic		\$570.00
71545	11/30/2012	Open			ICMA RETIREMENT TRUST 457	\$729.16
	Invoice		Date	Description		Amount
	691210		11/29/2012	Retirement Contribution, Nov 30 Pay date		\$729.16
71546	11/30/2012	Open			INTERWEST CONSULTING GROUP IN	\$2,047.89
	Invoice		Date	Description		Amount
	13569		11/19/2012	Plan Check Services: 405 Loma Ave, 203/		\$2,047.89
71547	11/30/2012	Open			KELLY-MOORE PAINTS	\$164.64
	Invoice		Date	Description		Amount
	803-00000433414		11/14/2012	Repair kit		\$164.64
71548	11/30/2012	Open			KING'S CLEANERS	\$764.50
	Invoice		Date	Description		Amount
	oct 2012		11/19/2012	uniform cleaning-PD		\$764.50
71549	11/30/2012	Open			MANPOWER	\$425.10
	Invoice		Date	Description		Amount
	24858551		11/11/2012	Temp Receptionist		\$425.10
71550	11/30/2012	Open			McMENAMIN, GEORGE	\$1,579.61
	Invoice		Date	Description		Amount
	PacCoveMHP-1		11/22/2012	ACE Crew work		\$1,117.11
	R-8		11/28/2012	Riparian Restoration		\$462.50
71551	11/30/2012	Open			MID-COUNTY AUTO SUPPLY	\$9.29
	Invoice		Date	Description		Amount
	322444		11/15/2012	Carb cleaner		\$9.29
71552	11/30/2012	Open			MURPHY, LISA	\$184.60
	Invoice		Date	Description		Amount
	Parma		11/26/2012	Reimb Travel Exp, PARMA Conf.		\$184.60
71553	11/30/2012	Open			ORCHARD SUPPLY HARDWARE	\$150.15
	Invoice		Date	Description		Amount
	6007-2293905		11/05/2012	Misc.		\$8.65
	6007-3524448		11/09/2012	Pliers - Matt		\$17.31
	6013-1232977		11/13/2012	Misc.		\$16.72
	6007-3525143		11/13/2012	Misc.		\$33.94
	6010-863705		11/13/2012	Plumbing parts		\$7.01
	6013-1233162		11/15/2012	Pliers - Lance		\$35.70
	6013-2093205		11/15/2012	Paint thinner		\$13.52
	6011-4796424		11/16/2012	Valve Repair, Esplanade		\$17.30

## City Checks Issued 11/30/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount
71554	11/30/2012	Open			PACIFIC GAS & ELECTRIC	\$52.75
	Invoice		Date	Description		Amount
	2013-00000360		11/26/2012	Pac Cove MHP Elec and Gas		\$52.75
71555	11/30/2012	Open			PACIFIC GAS & ELECTRIC	\$13,524.03
	Invoice		Date	Description		Amount
	2013-00000361		11/12/2012	Monthly Elec		\$13,524.03
				Fund 1000, Gen Fund=\$4761.10		
				Fund 1300, SLESF=\$122.26		
				Fund 1310, Gas Tax Fund=\$6815.04		
				Fund 1311, Wharf Fund=\$1825.63		
71556	11/30/2012	Open			PHIL ALLEGRI ELECTRIC, INC.	\$623.61
	Invoice		Date	Description		Amount
	17322		11/15/2012	Light repair		\$623.61
71557	11/30/2012	Open			PRAXAIR DISTRIBUTION INC.	\$62.00
	Invoice		Date	Description		Amount
	44593511		11/20/2012	Gases, Corp Yd		\$62.00
71558	11/30/2012	Open			ProBUILD COMPANY LLC	\$23.39
	Invoice		Date	Description		Amount
	5065903		11/15/2012	Plant supplies		\$23.39
71559	11/30/2012	Open			R & S ERECTION OF MONTEREY BAY	\$217.50
	Invoice		Date	Description		Amount
	34359		11/14/2012	Bay door repair		\$217.50
71560	11/30/2012	Open			S & S Powder Coating	\$900.00
	Invoice		Date	Description		Amount
	47963		11/07/2012	Garbage can lids		\$900.00
71561	11/30/2012	Open			SMITH, BRET	\$1,298.20
	Invoice		Date	Description		Amount
	11272012		11/27/2012	BB Shed repair		\$1,298.20
71562	11/30/2012	Open			SOQUEL CREEK WATER DISTRICT	\$7,658.36
	Invoice		Date	Description		Amount
	2013-00000363		11/09/2012	Semi-Monthly Water Usage, Irrigation (ear		\$7,658.36
				Fund 1000, Gen Fund=\$6949.09		
				Fund 1311, Wharf Fund=\$709.27		
71563	11/30/2012	Open			SWIFT, CAROLYN	\$164.11
	Invoice		Date	Description		Amount
	FedEx-RR		11/16/2012	Laminating Display Items, RR Event		\$164.11
71564	11/30/2012	Open			SWIFT, STEVE	\$84.60
	Invoice		Date	Description		Amount
	HD-RR		11/16/2012	Reimb Display Supplies, RR Event		\$84.60

# City Checks Issued 11/30/2012

Check Number	Invoice Number	Status	Invoice Date	Description	Payee Name	Transaction Amount	
71565	11/30/2012 Invoice 6106501-7	Open	Date 11/26/2012	Description Dec2012 Life & Disability Ins	THE HARTFORD -PRIORITY ACCOUNT	\$1,701.49 \$1,701.49	
71566	11/30/2012 Invoice 954791462	Open	Date 11/17/2012	Description shipping-PD	UNITED PARCEL SERVICE	\$17.91 \$17.91	
71567	11/30/2012 Invoice Nov2012	Open	Date 11/26/2012	Description Employee Contributions, Nov 2012	UNITED WAY OF SANTA CRUZ COUN	\$30.00 \$30.00	
71568	11/30/2012 Invoice PARS-11-30	Open	Date 11/26/2012	Description Retirement Contribution, Employee Funder	US Bank Institutional Trust-Western Reg	\$139.22 \$139.22	
71569	11/30/2012 Invoice 12-089	Open	Date 11/28/2012	Description Tree Permit Deposit Refund #12-089	Gold, Philip & Dornell	\$500.00 \$500.00	
71570	11/30/2012 Invoice 12-127	Open	Date 11/27/2012	Description Tree Permit Deposit Refund #12-127	Harvell, Susan	\$250.00 \$250.00	
71571	11/30/2012 Invoice 2013-00000352	Open	Date 11/16/2012	Description POST CLETS/NCIC training Frias	LETC	\$205.00 \$205.00	
71572	11/30/2012 Invoice 2013-00000353	Open	Date 11/26/2012	Description Refund from account	Ocaranza, Beatriz	\$42.00 \$42.00	
71573	11/30/2012 Invoice 12-114	Open	Date 11/27/2012	Description Tree Permit Deposit Refund #12-114	Tavella, Mary & Ernie	\$500.00 \$500.00	
Check Totals:				Count	42	Total	\$120,909.44

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## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: COMMUNITY DEVELOPMENT DIRECTOR

SUBJECT: PLANNING COMMISSION ACTION MINUTES OF DECEMBER 6, 2012

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**1. ROLL CALL AND PLEDGE OF ALLEGIANCE**

Commissioners: Ed Newman, Gayle Ortiz, Mick Routh, Linda Smith and  
Chairperson Ron Graves

**2. ORAL COMMUNICATIONS**

A. Additions and Deletions to Agenda - NONE

B. Public Comments - NONE

C. Commission Comments - NONE

D. Staff Comments - NONE

**3. APPROVAL OF MINUTES**

A. November 1, 2012 Regular Planning Commission Meeting

**APPROVED 5-0**

**4. CONSENT CALENDAR**

**A. 2185 41st AVENUE #12-149 APN: 034-192-02**

Sign Permit for a new wall signs in the CC (Community Commercial) Zoning District.  
Environmental Determination: Categorical Exemption  
Property Owner: Hernan Termeno, filed 11/9/12  
Representative: Susan Saltado/Liberty Tax

**APPROVED 5-0**

**B. 700 ESCALONA AVENUE #12-152 APN: 036-141-05**

Amendment to a previously approved Design Permit to construct a new two-story single-family residence to add a second floor deck in the R-1 (Single-Family Residence) Zoning District.  
Environmental Determination: Categorical Exemption  
Property Owner: Lori Perpich & Alberto Munoz, filed 11/19/12  
Representative: Derek Van Alstine

**APPROVED 5-0**

**C. 904 SIR FRANCIS AVENUE #06-061TX APN: 036-222-07**

Request for a one-year extension to a previously approved Coastal Permit and Architectural and Site Review for the remodel of an existing single-family residence and construction of a new second story in the R-1 (Single Family Residence) Zoning District.  
Environmental Determination: Categorical Exemption  
Property Owner: Justin and Lisa Maffia, owners, filed 11/15/12

**APPROVED 5-0**

**5. PUBLIC HEARINGS**

**A. 2178 41ST AVENUE #12-080 APN 034-221-02**

Design Permit and a Conditional Use Permit to demolish an existing food mart, currently run in conjunction with a gas station, and construct a new commercial retail building (7-11) in the CC (Community Commercial) Zoning District.  
Environmental Determination: Categorical Exemption  
Property Owner: Ed Hadad, filed: 6/18/12  
Representative: Joe Nguyen, ASI Consulting

**APPROVED 5-0**

**B. 4800 GRACE STREET #12-131 APN: 034-023-33**

Coastal Development Permit and Design Permit for the construction of a new one-story single-family residence in the R-1 (Single-Family Residence) Zoning District.  
This project requires a Coastal Permit which is not appealable to the California Coastal Commission.  
Environmental Determination: Categorical Exemption  
Owner: Fred & Nan DeJarlais, filed 10/2/12

**APPROVED 5-0**

**C. 515 GILROY DRIVE #12-140 APN: 035-081-04**

Coastal Development Permit and Design Permit for the demolition of a single-family residence and construction of a new two-story single-family residence in the R-1 (Single-Family Residence) Zoning District.  
This project requires a Coastal Permit which is not appealable to the California Coastal Commission  
Environmental Determination: Categorical Exemption  
Owner: Mary Byrne, filed 10/28/12  
Representative: Frank Phanton

**APPROVED 5-0**

**6. DIRECTOR'S REPORT**

**7. COMMISSION COMMUNICATIONS**

**8. ADJOURNMENT**

The Planning Commission adjourned the meeting at 8:30 p.m. to a Regular Meeting of the Planning Commission to be held on Thursday, January 17, 2013 at 7:00 p.m., in the City Hall Council Chambers, 420 Capitola Avenue, Capitola, California.



## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: CITY CLERK'S OFFICE

SUBJECT: CONSIDERATION OF A RESOLUTION SETTING INTEREST RATE FOR  
TENANT'S SECURITY DEPOSITS FOR 2013

**RECOMMENDED ACTION:** Adopt a Resolution setting the interest rate for tenant's security deposits for 2013 at zero percent (0%), as was set for 2012.

**BACKGROUND:** The City Council adopted Ordinance No. 804 on February 12, 1998, adding Chapter 5.48 to the Municipal Code requiring interest on security deposits for residential rental properties. Resolution No. 2948 set the interest rate for 1998 at 2%, which became effective March 14, 1998. Pursuant to the first sentence of Municipal Code Section 5.48.025, "On or before December 31 of each year, the City Council shall set the minimum interest rate (for tenant security deposits) for the next calendar year," the City Council reviews the interest rate and adopts a Resolution setting the rate for the next year. It has been the City Council's practice to set its interest rate for tenant security deposits consistent with the amount set by the Board of Supervisors of Santa Cruz County. A history of interest rates since adoption of the implementing Ordinance is also attached for your information.

**DISCUSSION:** The County's Investment Officer has completed a survey of annual simple interest on passbook savings and will be recommending at the December 11, 2012 County Board of Supervisors meeting that a Resolution be adopted setting the interest rate for tenant's security deposits for 2013 at 0.02%. At the December 13, 2012 Capitola City Council meeting staff will report to the Council results of the December 11, 2012 County Board of Supervisors meeting regarding the adoption of this Resolution. Based on the Council's action taken in 2012, staff has prepared a Resolution setting the rate at zero percent.

Notices will be mailed and/or emailed to all interested parties on Friday, December 7, 2012, along with the agenda report. A copy of the notice is attached.

**FISCAL IMPACT** – None

### **ATTACHMENTS**

1. Draft Resolution
2. History of Interest Rate for Tenant's Interest on Security Deposits
3. Notice

**Report Prepared By:** Susan Sneddon, CMC  
City Clerk

**Reviewed and Forwarded  
By City Manager** 

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RESOLUTION NO. \_\_\_\_

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CAPITOLA  
SETTING INTEREST RATE FOR TENANT SECURITY DEPOSITS FOR 2012  
AT ZERO PERCENT (0.00 %) IN THE CITY OF CAPITOLA**

**WHEREAS**, Municipal Code Section 5.48.025 contemplates the City Council setting the minimum interest rate for tenant security deposits; and

**WHEREAS**, the current rate of interest for residential rental security deposits is Zero Percent (0.0%); and

**WHEREAS**, the County of Santa Cruz Board of Supervisors, at its meeting to be held December 11, 2012, will vote whether to set the rate at 0.02% as recommended by the County's Investment Officer. Based on the Council's action to set the interest rate a zero percent (0.00%) last year, which is the average current rate for savings passbook accounts; and

**WHEREAS**, although it has been the practice of the Capitola City Council to set its interest rate for tenant security deposits consistent with other jurisdictions within the County of Santa Cruz, the Council finds the rate of 0.02% to be burdensome to property owners in the City of Capitola.

**NOW, THEREFORE, BE IT HEREBY RESOLVED** by the City Council of the City of Capitola that the rate of simple interest payable annually on residential rental security deposits by landlords shall be zero percent (0.00%) effective January 1, 2013.

**I HEREBY CERTIFY** that the above and foregoing Resolution was passed and adopted by the City Council of the City of Capitola at its regular meeting held on the 13<sup>th</sup> day of December, 2012, by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

ATTEST:

\_\_\_\_\_  
Stephanie Harlan, Mayor

\_\_\_\_\_, CMC  
Susan Sneddon, City Clerk

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420 Capitola Avenue  
 Capitola, California 95010  
 Telephone: (831) 475-7300  
 FAX: (831) 479-8879  
 Website: [www.ci.capitola.ca.us](http://www.ci.capitola.ca.us)

## HISTORY INFORMATION REGARDING TENANT'S INTEREST ON SECURITY DEPOSITS FOR RESIDENTIAL RENTAL PROPERTIES

### ORDINANCES ADOPTED

Ordinance No. 804, Ordinance Adding Chapter 5.48 to the Municipal Code Requiring Interest on Security Deposits for Residential Rental Properties, adopted February 12, 1998, effective March 14, 1998

Ordinance No. 813, Ordinance Amending Section 5.48.040 of the Municipal Code regarding Payment of Tenant's Interest, adopted December 19, 1999, effective January 18, 2000

### RESOLUTIONS ADOPTED

Resolution No. 2948	Two Percent (2.00%)	Effective March 14, 1998
Resolution No. 3007	Two Percent (2.00%)	January 1, 1999
Resolution No. 3067	Two Percent (2.00%)	January 1, 2000
Resolution No. 3107	Two Percent (2.00%)	January 1, 2001
Resolution No. 3180	One Percent (1.00%)	January 1, 2002
Resolution No. 3258	.58 Percent (0.58%)	January 1, 2003
Resolution No. 3322	.32 Percent (0.32%)	January 1, 2004
Resolution No. 3416	.32 Percent (0.32%)	January 1, 2005
Resolution No. 3510	.43 Percent (0.43%)	January 1, 2006
Resolution No. 3594	.34 Percent (0.34%)	January 1, 2007
Resolution No. 3671	.31 Percent (0.31%)	January 1, 2008
Resolution No. 3731	.23 Percent (0.23%)	January 1, 2009
Resolution No. 3791	.10 Percent (0.10%)	January 1, 2010
Resolution No. 3849	Zero Percent (0.00%)	January 1, 2011
Resolution No. 3898	Zero Percent (0.00%)	January 1, 2012

*Revised 12/7/12 S Sneddon*

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420 Capitola Avenue  
Capitola, California 95010  
Telephone: (831) 475-7300  
FAX: (831) 479-8879  
Website: [www.ci.capitola.ca.us](http://www.ci.capitola.ca.us)

December 7, 2012

RE: NOTICE OF CAPITOLA CITY COUNCIL CONSIDERATION OF A RESOLUTION  
SETTING INTEREST RATE FOR TENANT SECURITY DEPOSITS IN 2013

Interested Parties:

This is to inform you that on Thursday, December 13, 2012, the Capitola City Council will consider a Resolution setting the interest rate for tenant security deposits in 2013. Attached is a copy of the agenda report.

The Santa Cruz County Board of Supervisors, at its meeting to be held December 11, 2012, will vote whether to set the rate at 0.02% as recommended by the County's Investment Officer. Based on the Council's action to set the interest rate a zero percent (0.00%) last year, staff has recommended setting the interest rate at zero percent for 2013. The item is on the City Council's Consent Calendar; however, it could be pulled for separate discussion.

Please confirm that you still want to be informed of this information and that the name and mailing address on the envelope is correct. A certified copy of the Council's Resolution will be sent to you once it has been adopted.

In an effort to go "green," the City would prefer sending this information to interested parties by email. If you received this in the mail and have an email address where this information can be sent, please contact our Records Coordinator, Michele Deiter, at 831-475-7300, Ext. 220, or provide your email address to Michele at: [mdeiter@ci.capitola.ca.us](mailto:mdeiter@ci.capitola.ca.us)

Should you have questions regarding this information, please feel free to contact me.

Sincerely,

CITY OF CAPITOLA

Susan Sneddon  
City Clerk

Enclosure

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## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: CITY MANAGERS OFFICE

SUBJECT: CONSIDERATION OF APPROVING A RESOLUTION SUPPORTING THE  
TERMINATION OF THE SOUTHERN SEA OTTER TRANSLOCATION PROGRAM

**RECOMMENDED ACTION:** No staff recommendation. Council discretion to consider adopting a Resolution supporting the termination of the Southern Sea Otter Translocation Program.

**BACKGROUND/DISCUSSION:** Council Member Norton directed staff to place this item on the agenda for Council consideration. The California sea otter population has declined noticeably in recent years, in part because of impacts created by the No Otter Zone (NOZ) or "management zone" that extends from Point Conception to the Mexican Border. Within the NOZ, sea otters are not protected by the Endangered Species Act (ESA) or the Marine Mammal Protection Act (MMPA), as they are elsewhere. Up until 1993, U.S. Fish and Wildlife Service relocated sea otters found within the NOZ.

Sea otters have been moving south into the NOZ and repopulating their home range, and pups are being spotted in the area of Santa Barbara beaches. Official suspension of the NOZ would provide sea otters protections afforded by the ESA and MMPA throughout the sea otter's range.

In August 2011, U.S. Fish and Wildlife Service deemed the translocation program a failure and has called for its termination, which would eliminate the NOZ. Last month the U.S. Fish and Wildlife Service released the Final Supplemental Environmental Impact Statement for the Sea Otter Translocation Program which is available on the U.S. Fish and Wildlife Service's website.

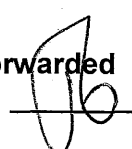
The lack of protections afforded to this endangered species place the future of the sea otter in peril. If approved, the attached draft Resolution will be sent to the U.S. Fish and Wildlife Service, the Ocean Conservancy, Save Our Shores, and the Otter Project, supporting the termination of the Southern Sea Otter Translocation Program.

**FISCAL IMPACT:** None

**ATTACHMENTS:**

1. Draft Resolution

**Report Prepared By:** Susan Sneddon  
City Clerk

**Reviewed and Forwarded  
By City Manager:** 

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RESOLUTION NO. \_\_\_\_\_

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CAPITOLA  
SUPPORTING THE TERMINATION OF THE SOUTHERN  
SEA OTTER TRANSLOCATION PROGRAM**

WHEREAS, the City of Capitola is California’s oldest seaside resort, annually hosts millions of visitors who come to Capitola to surf, swim, sightsee, and experience the coast, and has a long history of coastal environmental leadership; and

WHEREAS, sea otters inhabit the waters off the Capitola, delighting residents and visitors alike and, as a keystone species, contributing to the health of the ocean ecosystem; and

WHEREAS, sea otters were listed as threatened under the U.S. Endangered Species Act and depleted under the Marine Mammal Protection Act in 1977 and the U.S. Fish and Wildlife Service developed a recovery plan for sea otters; and

WHEREAS, the recovery plan determined that a primary threat to sea otters was a large oil spill, which could wipe out the entire population and the recovery plan determined that a population of sea otters separate from the parent population was necessary for recovery of the species; and

WHEREAS, the Southern Sea Otter Translocation Program was developed to establish a second sea otter population at San Nicolas Islands in the Channel Islands and in order to alleviate the concerns of fishing groups, the translocation program provided for a “management zone” or No Otter Zone (NOZ) from within which sea otters would be removed to either the parent population or the second population; and

WHEREAS, the translocation program proved unsuccessful when many of the otters moved to San Nicolas Island died as a result of translocation, returned to the parent population, or moved into the NOZ, and the status of more than half the sea otters moved unknown; and

WHEREAS, in their Final Supplemental Environmental Impact Statement for the Sea Otter Translocation Program, which was released in November 2012, U.S. Fish and Wildlife Service declared the translocation program a failure and proposed its termination, which would eliminate the NOZ; and

NOW THEREFORE BE IT RESOLVED, sea otters should be allowed to repopulate their historic home range and receive the full protection of the Endangered Species Act and Marine Mammal Protection Act throughout that range.

I HEREBY CERTIFY that the above and foregoing Resolution was passed and adopted by the City Council of the City of Capitola at its regular meeting held on the 13<sup>th</sup> day of December, 2012, by the following vote:

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:

\_\_\_\_\_  
Stephanie Harlan, Mayor

ATTEST: \_\_\_\_\_, CMC  
Susan Sneddon, City Clerk

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## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: CITY MANAGER'S DEPARTMENT

SUBJECT: AUTHORIZATION TO RECRUIT FOR THE COMMUNITY DEVELOPMENT  
DIRECTOR POSITION

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**RECOMMENDED ACTION:** Authorize the City Manager to recruit for the position of Community Development Director

**BACKGROUND:** Since the 2008/2009 Fiscal Year, the City has implemented a limited hiring freeze, requiring Council permission to fill a vacancy other than for sworn Police personnel.

**DISCUSSION:** The Community Development Director position became vacant October 2011. At that time the Council decided to fill the Community Development Director position with a part time contract person and recruit for a full time Finance Director. A Finance Director was recruited and hired in February 2012.

The City has included in the projected 2013/2014 budget a full-time Community Development Director. A review of the 2012/2013 budget shows that there should be adequate savings in the Community Development Department's budget for the City to start a recruitment which would result in having a full-time Community Development Director on staff by April 1. Staff has calculated the cost of a full time Community Development Director based on top step in the current salary range for three months.

Having a part-time contract Community Development Director has worked reasonably well for the City, but there will be major advantages to the City if there is a full time permanent Community Development Director on staff. A full-time Community Development Director will have the time and opportunity to not only finalize the General Plan/Local Coastal Plan update process but have the depth to start new programs such as a computerize records system for Planning, work actively on revitalizing the mall and Capitola Village, and implementing a new and improved zoning ordinance. A new full-time Community Development Director will be a valuable asset to the City's management team.

**FISCAL IMPACT:** Cost will be covered within the 2012/2013 Community Development Department budget.

Report Prepared By: Jamie Goldstein, City Manager

Reviewed and Forwarded  
By City Manager: 

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## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: CITY MANAGER'S DEPARTMENT

SUBJECT: AUTHORIZATION TO RECRUIT FOR THE SUPERVISING ACCOUNTANT POSITION

**RECOMMENDED ACTION:** Authorize the City Manager to recruit for the position of Supervising Accountant and modify the job description and salary as described below upon meeting with the bargaining group.

**BACKGROUND:** Since the 2008/2009 Fiscal Year, the City has implemented a limited hiring freeze, requiring Council permission to fill any vacancy other than a vacancy in the Police Department.

**DISCUSSION:** The Supervising Accountant in the Finance Department has recently resigned to accept a position in another City effective December 31, 2012. This position is integral to the operations in the Finance Department. The workload in the Finance Department has increased over the past two fiscal years due to assuming responsibilities for the Redevelopment Agency dissolution. In addition, the Department has also been operating with one less full-time employee since Fiscal Year 2008/2009. It is important to begin a recruitment effort immediately particularly as the budget process starts in January. If authorized by City Council, staff will conduct the recruitment.

The position is budgeted full-time in the Finance Department and is a member of the Mid-Managers Bargaining Unit. The job description was last updated in 2005. Prior to recruiting for the position, a review of the job description including the essential functions will be conducted. This will include an evaluation of whether this position should be exempt from receiving overtime. This overtime exemption is common in mid-management level accounting positions. If, after meeting with the Bargaining Unit, it is determined this position should be exempt, staff is requesting the authority to use a portion of the historic overtime budget allocated to this position to bring the salary to current market rates. The position title may also be updated to reflect the responsibilities of comparable positions.

**FISCAL IMPACT:** The position is currently in the adopted Budget. There may be a slight salary savings this fiscal year due to recruiting timelines and potentially hiring a new person at a lower step than the current employee.

Although minimal, this action is anticipated to result in long-term salary savings. This is because a five-year average of overtime earnings for this position is \$8,119/yr. If the position is changed from non-exempt to exempt, staff is requesting the authority to allocate up to \$4,000 (up to a 5% salary increase) to the position's salary to compensate for the loss of overtime and ensure a competitive applicant pool. Approval of the changes to the salary scale will not require additional funds in the current or future year budgets.

**Report Prepared By:** Lisa G. Murphy  
Administrative Services Director

Reviewed and Forwarded  
by City Manager: 

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## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: DEPARTMENT OF PUBLIC WORKS

SUBJECT: APPROVE BUDGET AMENDMENT PERTAINING TO THE CITY'S PARTICIPATION IN LED RETROFIT OF STREETLIGHTS WITH PACIFIC GAS AND ELECTRIC COMPANY

**RECOMMENDED ACTION:** Approve budget amendment receiving unanticipated revenue from PG&E in the amount of \$38,300 and authorizing an expense of \$38,300 for LED retrofit of City-owned streetlights within the Gas Tax Fund.

**BACKGROUND:** On January 26, 2012 the City Council approved the City's participation in a financing program and retrofit project with PG&E to place LED fixtures in City-owned streetlights. At the time of the approval staff believed that upfront costs for the work would be paid by PG&E and then repaid over time by the City. While this is still technically correct, the program is actually set up for PG&E to pay the City for the work, and then the City pays back PG&E, who then ultimately receives payment over time via the reduced utility bill for the streetlights.

**DISCUSSION:** Conversion of 67 streetlights was completed by PG&E at the end of October 2012. The final cost of the work was \$47,024. PG&E provided rebates of \$8,775 which lowered the City's cost to \$38,249. The City has also executed a loan document with PG&E, as authorized by the Council, and will be receiving a check in the amount of \$38,249. The terms of the loan are at 0% interest and will be paid off over 86 months. The estimated monthly savings on the utility bill is \$448.17 and the monthly loan payment will be \$444.76.

**FISCAL IMPACT:** The net fiscal impact on the Gas Tax Fund will be zero. Following the term of the loan, the City will realize a decrease in the utility costs within the Gas Tax Fund, freeing up funding for other expenses within the fund such as patching and striping work.

### ATTACHMENTS

1. Budget Amendment Form
2. Invoice from PG&E date October 30, 2012
3. General ON-Bill Financing Agreement dated November 9, 2012
4. Loan Calculation Summary Sheet

Report Prepared By: **Steven Jesberg**  
Public Works Director

Reviewed and Forwarded  
By City Manager:

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City of Capitola Budget Adjustment Form



Date 12/13/2012

Requesting Department Public Works

Administrative Council

Item # \_\_\_\_\_  
 Council Date 12/13/2012  
 Council Approval \_\_\_\_\_

Revenues		
Account #	Account Description	Increase/Decrease
1310-00-00-000-3930.750	Loan Proceeds	38,300
<b>Total</b>		<b>38,300</b>

Expenditures		
Account #	Account Description	Increase/Decrease
1310-00-00-000-4650.400	Cap Outlay-Equipment	38,300
<b>Total</b>		<b>38,300</b>

Net Impact -

Purpose: Adjust the FY12 budget for receiving and expending funds from PG&E related to the streetlight LED project.

\_\_\_\_\_

\_\_\_\_\_

Department Head Approva \_\_\_\_\_

Finance Department Approval \_\_\_\_\_

City Manager Approval \_\_\_\_\_

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99950007222955200038249000003824900

Invoice Number	Invoice Date	Amount Due	Amount Enclosed
0007222955 -2	10/30/2012	\$ 38,249.00	

LR CITY OF CAPITOLA  
 ATTN: STEVEN JESBERG, PUB WRKS DIR  
 420 CAPITOLA AVENUE  
 CAPITOLA CA 95010

PG&E  
 Box 997300  
 Sacramento, CA  
 95899-7300

**RECEIVED**

NOV 7 2012

Please return this portion with your payment. Thank you.

When Making Inquiries or Address Changes,  
 Please Contact :

Non-Energy Collection Unit  
 P.O. Box 8329  
 Stockton CA 95208-8329  
 (800) 945-5251

CITY OF CAPITOLA

Customer Number  
 949754

Invoice Number  
 0007222955 -2

LED STREETLIGHT TURNKEY PROJECT OBF - 67 LAMPS  
 REBATE AMOUNT IS \$8,775.

Description	Settlement Period		Amount
	From	To	
<b>Reference Number: LED STREETLIGHTS</b>			
LED STREETLIGHT TURNKEY PROJECT OBF		10/30/2012	38,249.00
		<i>Line Item Subtotal</i>	38,249.00
<b>AMOUNT NOW DUE \$</b>			<b>38,249.00</b>

NOTE : This invoice reflects current charges only.  
 Any past due amounts will be billed separately.

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**GENERAL ON-BILL FINANCING**  
**LOAN MODIFICATION AGREEMENT**  
**ENERGY EFFICIENCY RETROFIT LOAN PROGRAM**

Date: 11/9/2012

City of Capitola LED Streetlights (TIF 1378)

ORIGINAL LOAN TERMS CONTAINED IN SIGNED LOAN AGREEMENT						
Total Cost	Incentive	Customer Buy-Down (if applicable)	Loan Balance	Monthly Payment	Term (months)	Number of Payments
\$55,780.00	\$10,075.00	\$N/A	\$45,705.00	\$486.22	94	94

The new loan terms shown below are based on calculated or reported changes in:

- project cost
- project scope
- energy efficiency incentives
- customer buy-down
- estimated energy savings, or
- any combination of the above

These new loan terms supersede those described in the original Loan Agreement. **ALL OTHER TERMS AND CONDITIONS OF THE LOAN AGREEMENT REMAIN IN FORCE.**

NEW LOAN TERMS						
Total Cost	Incentive	Customer Buy-Down (if applicable)	Loan Balance	Monthly Payment	Term (months)	Number of Payments
\$47,024.00	\$5,378.00	\$N/A	\$38,249.00	\$444.76	86	86



**Check Made Payable to Customer  or Contractor**   
 [Customer: Please select payment method by checking box and circling. Note that only one check can be issued.  
 Please include contractor details if loan proceeds are to be issued to contractor.]

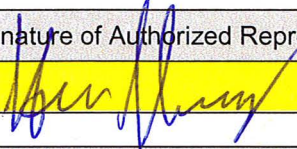
<u>Customer Details</u>	<u>Contractor Details</u>
Federal Tax ID or Social Security #, Customer 94-6002834	Federal Tax ID or Social Security #, Contractor

PG&E Account # / Service Agreement # Acct: 2538442101 SAID: 1493060026
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Account Name, Customer City of Capitola LED Streetlights TIF 1378	Name, Contractor
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Service Address, Customer (For OBF Check Delivery) 420 Capitola Ave., Capitola, CA 95010 - multiple *	Mailing Address, Contractor
--	-----------------------------

Name and Title of Authorized Representative of Customer Steven E. Josberg, Public Works Director	Name and Title of Authorized Representative of Contractor
---	---

Signature of Authorized Representative of Customer 
---

Date 11-27-12
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**ACCEPTED: Pacific Gas and Electric Company**

By PG&E On-Bill Financing Program Manager	Date
--	------

Address:  
 PG&E Integrated Processing Center  
 P.O. Box 7265  
 San Francisco, CA 94120-7265

**ENERGY EFFICIENCY RETROFIT LOAN PROGRAM (OBF)**  
**Loan Calculation Summary Sheet**  
**Simple project payback per meter**

**Customer Name:** City of Capitola

**Project Number:** LED Streetlight Retrofit (TIF 1378)

**Final Invoice 10/29/12**

(A) PROJECT COST FOR MEASURES	(B) REBATES or INCENTIVES	Customer Down Payment or Buy-Down	CUSTOMER TOTAL LOAN AMOUNT	(C) CUSTOMER AVERAGE RATE PER kWh	(D) CUSTOMER AVERAGE RATE PER Therm	(E) ESTIMATED ANNUAL ENERGY SAVINGS (kWh)	(F) ESTIMATED ANNUAL GAS SAVINGS (Therm)	ESTIMATED ANNUAL ENERGY COST SAVINGS	SIMPLE PAYBACK IN YEARS
\$ 47,024.00	\$ 8,775.00		\$ 38,249.00		\$ -	42,265.0	0.0	\$ 5,378.00	7.11

PAYBACK IN MONTHS BASED ON EXPECTED ENERGY SAVINGS	LOAN TERM (MONTHS) (1 month added for bill neutrality)	CUSTOMER FIXED MONTHLY LOAN PAYMENT	EXPECTED MONTHLY ENERGY SAVINGS
85	86	\$ 444.76	\$ 448.17

(C) = (From utility bill) Total \$ amount (12-month) / Total kWh (same 12-month)

(D) = (From utility bill) Total \$ amount (12-month) / Total therm (same 12-month)

Post-Field Calcs

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## CITY COUNCIL AGENDA REPORT

**MEETING OF DECEMBER 13, 2012**

FROM: CITY CLERK'S OFFICE

SUBJECT: CITY COUNCIL APPOINTMENTS/REAPPOINTMENTS OF PUBLIC MEMBERS TO VARIOUS BOARDS, COMMITTEES AND COMMISSIONS AND CITY COUNCIL REPRESENTATION ON VARIOUS CITY AND COUNTY/MULTI-COUNTY BOARDS, COMMISSIONS, AND COMMITTEES

**RECOMMENDED ACTION:** City Council to review the materials provided and take appropriate actions.

**BACKGROUND:** Each year in December it is customary for the City Council to review its list of City Boards, Commissions and Committees (Advisory Bodies), as well as appointments to other County and Multi-County Boards, Commissions and Committees. This is particularly important following a Municipal Election when Council Members have changed. The newly elected Council Members, along with continuing Council Members, would need to fill vacancies created by outgoing Council Members. This is also the time when Council Members may step down from representing the City on certain Advisory Bodies and request appointment of another Council Member Representative.

**DISCUSSION:** Attached is a worksheet showing those members on Boards/Committee/Commissions [Attachment 1]. Also attached are the "2012 Capitola Board, Commission & Committee Appointment List" [Attachment 2], and the "2012 County/Multi-County Boards Capitola Representatives List" [Attachment 3]. These documents contain information regarding membership, meeting schedules/locations, staff representatives, etc. Also attached are the current rosters for each Commission/Committee, in addition to applications received. It is important to note that individual Council Member appointments can be made without having received an application from the person they wish to appoint. Communication was made with the current members to see if they would be interested in continuing to serve.

Since it has been several years since the City Council has conducted a comprehensive review of the City's internal Advisory Bodies, the Council may desire to consider continuing the internal appointments until the January 10, 2012, Council meeting to allow additional time to review and discuss these Committees.

**CITY BOARDS, COMMISSIONS AND COMMITTEES REQUIRING ACTION:** There are several terms expiring on the City's Advisory Bodies, which require either reappointment, if the current member desires to continue to serve, or appointment of a new member by the City Council. The Mayor and the City Council will consider and determine the Representative(s) on the following:

**ARCHITECTURAL & SITE REVIEW COMMITTEE.** Recruitment was conducted from October 23 through November 19, 2012. No new applications were received.

**ART & CULTURAL COMMISSION.** Recruitment was conducted from October 23 through November 9, 2012. The Art & Cultural Commission considered the incumbents' requests for reappointment at its meeting of November 13, 2012, and took action to unanimously recommend reappointment.

**COMMISSION ON THE ENVIRONMENT.** Recruitment was conducted from October 23 through November 19, 2012. Two new applications were received [Attachment 4].

**Item #: 9.A. Staff Report.pdf** COUNCIL REPRESENTATION/APPOINTMENTS

FINANCE ADVISORY COMMITTEE. Recruitment was conducted from October 23 through November 19, 2012. Three new applications were received [Attachment 5].

HISTORICAL MUSEUM BOARD – No action is needed at this time.

LIBRARY AD HOC COMMITTEE. Recruitment was conducted from October 23 through November 19, 2012. There are no expiring terms on this committee however; there has been one vacancy, which is Mayor Harlan's appointee and two appointee seats of outgoing Council Member Nicol that need to be considered for appointment/reappointment. No new applications were received.

PLANNING COMMISSION. Recruitment was conducted from October 23 through November 19, 2012. No new applications were received.

TRAFFIC & PARKING COMMISSION. A recruitment was conducted from November 9 through November 26, 2012. One new application was received [Attachment 6].

WHARF WORKING GROUP

**COUNTY/MULTI-COUNTY BOARDS, COMMISSIONS AND COMMITTEES REQUIRING ACTION:**

The following information is provided to assist the City Council regarding appointments to County and Multi-County Boards, Commissions and Committees.

ADVISORY COUNCIL OF THE AREA AGENCY ON AGING (SENIORS COUNCIL OF SANTA CRUZ & SAN BENITO COUNTIES) [Attachment 7 — Applications]. Recruitment was conducted from October 31 through November 26, 2012.

ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

AMBAG SANCTUARY SCENIC TRAIL COMMITTEE

COMMUNITY TELEVISION OF SANTA CRUZ COUNTY BOARD

COMMUNITY ACTION BOARD OF SANTA CRUZ COUNTY [Attachment 8 — Applications]. Recruitment was conducted from November 9 through November 26, 2012.

CRIMINAL JUSTICE COUNCIL OF SANTA CRUZ COUNTY

CULTURAL COUNCIL OF SANTA CRUZ

HAZARD MATERIALS ADVISORY COMMISSION

LOCAL AGENCY FORMATION COMMISSION (LAFCO)

LEAGUE OF CALIFORNIA CITIES

LIBRARY FINANCING AUTHORITY

LIBRARY JOINT POWERS BOARD

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT<sup>1</sup>

SANTA CRUZ COUNTY CHILDREN'S NETWORK

SANTA CRUZ COUNTY CONFERENCE & VISITORS COUNCIL<sup>1</sup>

SANTA CRUZ COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT, ZONE 5

SANTA CRUZ COUNTY INTEGRATED WASTE MANAGEMENT LOCAL TASK FORCE

<sup>1</sup> These Board seats are the "Santa Cruz County CITY Seats." Appointments to these seats are made by a majority vote of the members of the City Selection Committee from the cities of Santa Cruz, Watsonville, Capitola and Scotts Valley.

SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION (SCCRTC)  
SANTA CRUZ COUNTY SANCTUARY INTER-AGENCY TASK FORCE  
SANTA CRUZ COUNTY SANITATION DISTRICT  
SANTA CRUZ COUNTY WORKFORCE INVESTMENT BOARD  
SANTA CRUZ METROPOLITAN TRANSIT DISTRICT  
SANTA CRUZ REGIONAL 911 BOARD  
THE CAPITOLA PUBLIC SAFETY & COMMUNITY SERVICE FOUNDATION

**ATTACHMENTS:**

1. Boards/Committee/Commissions Worksheet;
2. 2012 Capitola Board, Commission & Committee Appointment List;
3. 2012 County/Multi-County Boards Capitola Representatives List;
4. Commission on the Environment applications received;
5. Finance Advisory Committee applications received;
6. Traffic & Parking Commission application received;
7. Area Agency on Aging applications received;
8. Community Action Board applications received.

**Report Prepared By:** Michele Deiter, CMC  
Records Coordinator

**Reviewed and Forwarded  
By City Manager:** 

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NAME OF BOARD/COMMISSIONS & INCUMBENTS	RECOMMENDED ACTION TO APPOINT OR REAPPOINT
<b>Architectural &amp; Site Review Committee</b>	<b>Applicants</b>
Derek Van Alstine (Architect)	Derek Van Alstine (Architect) (Incumbent)
Frank Phanton (Alternate Architect)	Frank Phanton (Alternate Architect) (Incumbent)
Susan M. Suddjian (Landscape Architect)	Susan M. Suddjian (Landscape Architect) (Incumbent)
Carolyn Swift (Historian)	Carolyn Swift (Historian) (Incumbent)
<b>Art &amp; Cultural Commission</b>	<b>Applicants</b>
Michael Termini (Council Rep)	Appoint Council Representative
Linda Smith (Planning Commission Rep)	Linda Smith (Planning Commission Rep) <sup>1</sup>
Joyce Murphy ("At Large" member)	Joyce Murphy ("At Large" member) (Incumbent)
Jenny Shelton ("At Large" member)	Jenny Shelton ("At Large" member) (Incumbent)
<b>Commission on the Environment</b>	<b>Applicants</b>
Kristin Sullivan (Harlan's appointee)	Kristin Sullivan (Incumbent)
Elisabeth Russell ("At Large" member)	Elisabeth Russell ("At Large" member) (Incumbent)
Steven Peters (Ex-Officio Member)	Steven Peters (Ex-Officio Member) (Incumbent)
John Ricker (Ex-Officio Member)	John Ricker (Ex-Officio Member) (Incumbent)
Dennis Norton (Council Rep)	Confirm appointment of Mayor or Council Member Representative.
Ron Graves (Planning Commission Rep) <sup>1</sup>	
Karl Forest (Storey's appointee)	<b>New applicants:</b>
Greg Tedesco (Nicol's appointee)	Rachell Summers ("At Large" Member/Council Appointee Member)
Vacant (Termini's appointee)	Madeline Marlatt (Youth Member)
Tiffany Wise-West ("At Large" member) <sup>2</sup>	
Vacant (Youth Member)	
	Each Council Member not on the Commission to reappoint member, make a new appointment, or direct staff to continue to seek applications for their appointment.

<sup>1</sup>The Planning Commission will select its representative at its next regular meeting to be held January 17, 2013. Until that time, the incumbent will continue to serve.

<sup>2</sup>Tiffany West-Wise would like to continue to serve, but will be in Hawaii from February-June 2013 and would need to attend the meetings through Skype until her return.

NAME OF BOARD/COMMISSIONS & INCUMBENTS	RECOMMENDED ACTION TO APPOINT OR REAPPOINT
<b>Finance Advisory Committee</b>	<b>Applicants</b>
Michael Termini (Mayor)	
Kirby Nicol (Council Rep)	
Jacques Bertrand (City Treasurer)	Kym DiWitt (Incumbent)
Nathan Cross (Norton's appointee)	Nathan Cross (Incumbent)
Will O'Sullivan (Harlan's appointee)	Will O'Sullivan (Incumbent)
Vacant (Storey's appointee)	
Christine McBroom (Business Rep)	Christine McBroom (Business Rep) (Incumbent): Recommended by the Capitola Soquel Chamber of Commerce.
	<p><b>New applicants:</b>  Jacques Bertrand  Mary Navas</p> <p>Confirm that the Mayor and Vice Mayor will serve as the Council Member Representatives; if not, appoint other Council Member Representative(s) .  Remaining Council Members to reappoint their member, make a new appointment, or direct staff to continue to seek applications for their appointment.</p>
<b>Historical Museum Board</b>	No action is needed at this time.
<b>Library Ad Hoc Committee</b>	<b>Applicants</b>
Tony Gualtieri (Former Council Member Nicol's appointee)	Tony Gualtieri (Incumbent)
Mary Healy (Former Council Member Nicol's appointee)	Mary Healy (Incumbent)
	Mayor Harlan and Council Member Bottorff to appoint/reappoint, or direct staff to continue to seek applications.
<b>Planning Commission</b>	<b>Applicants</b>
Ron Graves (Harlan's appointee)	Ron Graves (Incumbent)
Edward Newman (Former Council Member Nicol's appointee)	Edward Newman (Incumbent)
Gaye Ortiz (Norton's appointee)	Gaye Ortiz (Incumbent)
Mick Routh (Storey's appointee)	Mick Routh (Incumbent)
Linda Smith (Termini's appointee)	Linda Smith (Incumbent)
	Council Members to reappoint, make a new appointment, or direct staff to continue to seek applications for their appointment.

NAME OF BOARD/COMMISSIONS & INCUMBENTS	RECOMMENDED ACTION TO APPOINT OR REAPPOINT
<b>Traffic &amp; Parking Commission</b>	<b>Applicants</b>
Margaret Kinstler (Village Resident)	Margaret Kinstler (Village Resident) (Incumbent)
Vacant (Village Resident)	Vacant (Village Resident)
Carin Hanna (Village Business Owner)	Carin Hanna (Village Business Owner) (Incumbent)
Gary Wetsel (Village Business Owner)	Gary Wetsel (Village Business Owner) (Incumbent)
Nels Westman (Termini's appointee)	Nels Westman (Incumbent)
Anne Nicol (Nicol's appointee)	Vacant (Bottorff's appointee)
Linda Hanson (Norton's appointee)	Linda Hanson (Incumbent)
Molly Ording (Storey's appointee)	Molly Ording (Incumbent)
Vicki Muse (Harlan's appointee)	Vicki Muse (Incumbent)
Mick Routh (Planning Commission Rep). <sup>1</sup>	Mick Routh (Planning Commission Rep) <sup>1</sup>
	<b><u>New applicants:</u></b>
	John Martorella (Village Resident)
	<p>Appoint/reappoint two Village Resident Representatives.  Appoint/reappoint two Village Business Owner Representatives.  Each Council Member to reappoint member, make a new appointment, or direct staff to continue to seek applications for their appointment.</p>
<b>Wharf Working Group</b>	<b>Applicants</b>
Council Member Termini (Representative)	No action is needed at this time unless a Council Member wants to step down.
Former Council Member Norton (Representative)	

<sup>1</sup>The Planning Commission will select its representative at its next regular meeting to be held January 17, 2013. Until that time, the incumbent will continue to serve.

**COUNTY/MULTI-COUNTY BOARDS, COMMISSIONS AND COMMITTEES REQUIRING ACTION**

<b>ADVISORY COUNCIL OF THE AREA AGENCY ON AGING (SENIORS COUNCIL OF SANTA CRUZ &amp; SAN BENITO COUNTIES)</b>	
Representative Sandra Williams	<b>New applicants:</b>
Alternate Council Member Harlan	Philip Pabich
	Melody Newcombe
	Linda Welsh
<b>ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS (AMBAG)</b>	
Council Member Stephanie Harlan	No action is needed at this time unless Council Members want to step down.
Alternate Council Member Norton	
<b>AMBAG SANCTUARY SCENIC TRAIL COMMITTEE</b>	
Council Member Stephanie Harlan (Representative)	No action is needed at this time unless Council Members want to step down.
Council Member Norton (Alternate)	
<b>COMMUNITY TELEVISION OF SANTA CRUZ COUNTY BOARD</b>	
Doree Steinmann	Doree Steinmann (Incumbent)
<b>COMMUNITY ACTION BOARD OF SANTA CRUZ COUNTY</b>	
George Winslow (Representative)	
Vacant (Alternate)	George Winslow (Alternate) (Incumbent)
	Appoint Council Member or the following applicant: <b>New applicant:</b> Cynthia Finley (Representative)
<b>CRIMINAL JUSTICE COUNCIL OF SANTA CRUZ COUNTY</b>	
Council Member Nicol (Representative)	
Council Member Termini (Representative)	
	Appoint/reappoint one Council Member, and one other Representative (a Council Member or the City Manager)
<b>CULTURAL COUNCIL OF SANTA CRUZ</b>	
Council Member Norton (Representative)	No action is needed at this time unless Council Member wants to step down.
<b>HAZARD MATERIALS ADVISORY COMMISSION</b>	
Gene Benson (Representative)	No action is needed at this time.
<b>LOCAL AGENCY FORMATION COMMISSION (LAFCO)</b>	
Council Member Norton (Representative)	No action is needed at this time.
<b>LEAGUE OF CALIFORNIA CITIES</b>	
	Open to all Council Members



**COUNTY/MULTI-COUNTY BOARDS, COMMISSIONS AND COMMITTEES REQUIRING ACTION**

<b>LIBRARY FINANCING AUTHORITY</b>	
Council Member Storey (Representative)	No action is need at this time unless a Council Member wants to step down.
Council Member Termini (Alternate)	
<b>LIBRARY JOINT POWERS BOARD</b>	
Council Member Storey (Representative)	No action is need at this time unless a Council Member wants to step down.
<b>MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT</b>	
Council Member Storey (Representative)	Nominate a Council Member to be considered by the City Selection Committee in January 2013.
<b>SANTA CRUZ COUNTY CHILDREN'S NETWORK</b>	
Council Member Storey (Representative)	No action is needed at this time unless Council Member wants to step down.
<b>SANTA CRUZ COUNTY CONF &amp; VISITORS COUNCIL</b>	
Council Member Storey (Representative)	Nominate a Council Member to be considered by the City Selection Committee in January 2013.
<b>SANTA CRUZ COUNTY FLOOD CONTROL &amp; WATER CONSERVATION DISTRICT, ZONE 5</b>	
Council Member Norton (Alternate)	
Former Council Member Nicol (Representative)	Appoint/reappoint Council Member Representative and Alternate.
<b>SANTA CRUZ COUNTY INTEGRATED WASTE MANAGEMENT LOCAL TASK FORCE</b>	
Council Member Harlan (Representative)	No action is needed at this time unless Council Member wants to step down.
Administration Services Director Lisa Murphy (Alternate)	
<b>SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION (SCCRTC)</b>	
Former Council Member Nicol (Representative)	Appoint/reappoint Council Member Representative and Council Member Alternate.
Council Member Norton (Alternate)	
<b>SANTA CRUZ COUNTY SANCTUARY INTER-AGENCY TAK FORCE</b>	
Council Member Harlan (Representative)	No action is needed at this time unless Council Member wants to step down.
<b>SANTA CRUZ COUNTY SANITATION DISTRICT</b>	
Council Member Harlan (Representative)	No action is needed at this time unless Council Member wants to step down.
Council Member Storey (Alternate)	
<b>SANTA CRUZ COUNTY WORKFORCE INVESTMENT BOARD</b>	
Generally the City Manager serves on this Board.	No action is needed at this time.

**COUNTY/MULTI-COUNTY BOARDS, COMMISSIONS AND COMMITTEES REQUIRING ACTION**

<b>SANTA CRUZ METROPOLITAN TRANSIT DISTRICT</b>	
Planning Commissioner Ron Graves (Representative)	No action is needed at this time.
<b>SANTA CRUZ REGIONAL 911 BOARD</b>	
City Manager Goldstein (Representative)	No action is needed at this time.
<b>THE CAPITOLA PUBLIC SAFETY &amp; COMMUNITY SERVICE FOUNDATION</b>	
Mayor Termini (Representative)	Appoint new Mayor as the Representative.

**2012 CAPITOLA BOARD, COMMISSION & COMMITTEE  
APPOINTMENT LIST**

Name of Board/Commission/ Committee – Meeting Information	Members	Appointed By and/or Representation
<p><b>Architectural and Site Review Committee ▲ ■</b> Staff: Ryan Bane, Senior Planner Steve Jesberg, Public Works Dir Mark Wheeler, Building Official</p> <p><i>Meets: 2<sup>nd</sup> &amp; 4<sup>th</sup> Wednesday of each month at 3:30 p.m. in the City Hall Council Chambers</i></p> <p><i>Mayoral Appointment</i></p>	<ul style="list-style-type: none"> <li>• Derek Van Alstine</li> <li>• Frank Phanton</li> <li>• Susan Suddjian</li> <li>• Carolyn Swift</li> </ul>	<ul style="list-style-type: none"> <li>• Architect</li> <li>• Architect (<i>Alternate</i>)</li> <li>• Landscape Architect</li> <li>• Historian</li> </ul>
<p><b>Art &amp; Cultural Commission ▲</b> Staff: Kelly Sue Barreto, Administrative Assistant Lisa Murphy, Administrative Services Director</p> <p><i>Meets: 2<sup>nd</sup> Tuesday of each month at 6:30 p.m. in the City Hall Council Chambers</i></p> <p><i>Council Appointment</i></p>	<ul style="list-style-type: none"> <li>• Michael Termini</li> <li>• Linda Smith</li> <li>• Karen Nevis</li> <li>• Roy Johnson</li> <li>• Nathan Cross</li> <li>• Kim Hogan</li> <li>• Joyce Murphy</li> <li>• Jenny Shelton</li> <li>• James Wallace</li> </ul>	<ul style="list-style-type: none"> <li>• Council Rep</li> <li>• Planning Commission Rep</li> <li>• Artist</li> <li>• Arts Professional</li> <li>• At Large Member</li> <li>• At Large Member</li> <li>• At Large Member</li> <li>• At Large Member</li> <li>• At Large Member</li> </ul>
<p><b>Commission on the Environment</b> Staff: Susan Westman, General Plan Coordinator</p> <p><i>Meets: A minimum of 4 times a year as needed on the 4<sup>th</sup> Tuesday of a month at 6:00 p.m. in the City Hall Council Chambers</i></p> <p><i>Council Appointment</i></p>	<ul style="list-style-type: none"> <li>• Dennis Norton</li> <li>• Ron Graves</li> <li>• Karl Forest</li> <li>• Kristin Sullivan</li> <li>• Greg Tedesco</li> <li>• Vacant</li> <li>• Elisabeth Russell</li> <li>• Tiffany West-Wise</li> <li>• Vacant</li> <li>• Steven Peters</li> <li>• John Ricker</li> </ul>	<ul style="list-style-type: none"> <li>• Council Member</li> <li>• Planning Commission Rep</li> <li>• Storey Appt</li> <li>• Harlan Appt</li> <li>• Nicol Appt</li> <li>• Termini Appt</li> <li>• At Large Member</li> <li>• At Large Member</li> <li>• Youth Member</li> <li>• Ex-Officio Member</li> <li>• Ex-Officio Member</li> </ul>
<p><b>Finance Advisory Committee</b> Staff: Tori Hannah, Finance Director</p> <p><i>Meets: 3<sup>rd</sup> Tuesday of every other month at 6:30 p.m. in the City Hall Council Chambers</i></p> <p><i>Council Appointment</i></p>	<ul style="list-style-type: none"> <li>• Michael Termini</li> <li>• Kirby Nicol</li> <li>• Kym DeWitt</li> <li>• Nathan Cross</li> <li>• Will O'Sullivan</li> <li>• Vacant</li> <li>• Christine McBroom</li> </ul>	<ul style="list-style-type: none"> <li>• Mayor</li> <li>• Council Member</li> <li>• City Treasurer</li> <li>• Norton, Appt</li> <li>• Harlan, Appt</li> <li>• Storey, Appt</li> <li>• Business Rep.</li> </ul>
<p><b>Historical Museum Board</b> Staff: Carolyn Swift, Museum Coordinator</p> <p><i>Meets: 1<sup>st</sup> Thursday of each month at 5:30 p.m. in the Museum</i></p> <p><i>Council Appointment</i></p>	<ul style="list-style-type: none"> <li>• Alistair "Bob" Anderson</li> <li>• Stephanie Kirby</li> <li>• Niels Kisling</li> <li>• Thomas McGranahan</li> <li>• David Shoaf</li> <li>• Linda Smith</li> <li>• Gordon van Zuiden</li> </ul>	<p>All appointments to the Historical Museum Board are at large.</p>

Name of Board/Commission/ Committee – Meeting Information	Members	Appointed By and/or Representation
<p><b>Planning Commission ▲ ■</b>                      Staff: Susan Westman, General Plan                      Coordinator</p> <p><i>Meets: 1<sup>st</sup> Thursday of each month at                      7:00 p.m. in the City Hall Council                      Chambers</i></p> <p><i>Council Appointment</i></p>	<ul style="list-style-type: none"> <li>• Ron Graves</li> <li>• Mick Routh</li> <li>• Linda Smith</li> <li>• Ed Newman</li> <li>• Gayle Ortiz</li> </ul>	<ul style="list-style-type: none"> <li>• Harlan Appt</li> <li>• Storey Appt</li> <li>• Termini Appt</li> <li>• Nicol Appt</li> <li>• Norton Appt</li> </ul>
<p><b>Traffic &amp; Parking Commission</b>                      Staff: Steve Jesberg, Public Works                      Director</p> <p><i>Meets: 2<sup>nd</sup> Wednesday of every other                      month at 6:30 p.m. in the                      City Hall Council Chambers</i></p> <p><i>Council Appointment</i></p>	<ul style="list-style-type: none"> <li>• Margaret Kinstler</li> <li>• Vacant</li> <li>• Carin Hanna</li> <li>•</li> <li>• Gary Wetsel</li> <li>• Linda Hanson</li> <li>• Vicki Muse</li> <li>• Anne Nicol</li> <li>• Molly Ording</li> <li>• Nels Westman</li> <li>• Mick Routh</li> </ul>	<ul style="list-style-type: none"> <li>• Village Resident</li> <li>• Village Resident</li> <li>• Village Business                      Owner</li> <li>• Village Business                      Owner</li> <li>• Norton Appt</li> <li>• Harlan Appt</li> <li>• Nicol Appt</li> <li>• Storey Appt</li> <li>• Termini Appt</li> <li>• Planning                      Commission Rep</li> </ul>
<p><b>Wharf Working Group</b>                      Staff: Steve Jesberg, Public Works                      Director</p> <p><i>Meets: As needed on the 4<sup>th</sup> Tuesday                      of a month at 12 p.m. in the                      Wharf House Restaurant</i></p>	<ul style="list-style-type: none"> <li>• Dennis Norton</li> <li>• Michael Termini</li> <li>• Jamie Goldstein</li> <li>• John and Sally Ealy</li> <li>• Willie Case</li> </ul>	<ul style="list-style-type: none"> <li>• Council Rep</li> <li>• Council Rep</li> <li>• City Manager</li> <li>• Capitola Boat &amp; Bait</li> <li>• Wharf House                      Restaurant</li> </ul>

▲ = Members are required to File Statements of Economic Interest, Form 700

■ = Members are required to complete AB 1234 Ethics Training

**2012 COUNTY/MULTI-COUNTY BOARDS  
CAPITOLA REPRESENTATIVES LIST**

Name of Board – Meeting Information	Capitola Representative(s)
<p>Advisory Council of the Area Agency on Aging - Seniors Council of Santa Cruz &amp; San Benito Counties <i>(Meets: 2<sup>nd</sup> Wednesday of each month except for August and December, from 10:00 a.m. to 12:00 Noon at 234 Santa Cruz Avenue, Aptos)</i></p>	<ul style="list-style-type: none"> <li>• Sandra Williams</li> <li>• Stephanie Harlan <i>(Alternate)</i></li> </ul>
<p>Association of Monterey Bay Area Governments (AMBAG) ▲ <i>(Meets: 2<sup>nd</sup> Wednesday of each month at 7:00 p.m. at various locations)</i></p>	<ul style="list-style-type: none"> <li>• Stephanie Harlan</li> <li>• Dennis Norton <i>(Alternate)</i></li> </ul>
<p>AMBAG Sanctuary Scenic Trail Committee <i>(Meets: As needed)</i></p>	<ul style="list-style-type: none"> <li>• Stephanie Harlan</li> <li>• Dennis Norton <i>(Alternate)</i></li> </ul>
<p>Community Television of Santa Cruz County Board of Directors <i>(Meets: 4<sup>th</sup> Thursday of the month, 6 times per year, at 6 or 6:30 p.m. at Community Television Offices, 816 Pacific Avenue, Santa Cruz)</i></p>	<ul style="list-style-type: none"> <li>• Doree Steinmann <i>(Term expires 11/2012)</i></li> </ul>
<p>Community Action Board of Santa Cruz County <i>(Meets: 3<sup>rd</sup> Wednesday of each month at 6:15 p.m.)</i></p>	<ul style="list-style-type: none"> <li>• George Winslow</li> <li>• Vacant <i>(Alternate)</i></li> </ul>
<p>Criminal Justice Council of Santa Cruz County <i>(Meets: Quarterly, starting February 7, 2013 at 3:00 p.m. at 2701 Cabrillo College Drive, Aptos)</i></p>	<ul style="list-style-type: none"> <li>• Kirby Nicol</li> <li>• Michael Termini</li> </ul>
<p>Cultural Council of Santa Cruz County <i>(Meets: 3<sup>rd</sup> Thursday of every other month from 3:30 to 5:00 p.m. at various locations)</i></p>	<ul style="list-style-type: none"> <li>• Dennis Norton</li> </ul>
<p>Hazardous Materials Advisory Commission <i>(Meets: 3<sup>rd</sup> Thursday of odd months at 7 p.m. at various locations)</i></p>	<ul style="list-style-type: none"> <li>• Gene Benson <i>(Term expires 4/1/2015)</i></li> </ul>
<p>LAFCO (Local Agency Formation Commission) ▲ <i>(Meets: 1<sup>st</sup> Wednesday of each month except for July, at 9:30 a.m. in the County Board of Supervisors Chambers, 701 Ocean Street, Santa Cruz)</i></p>	<ul style="list-style-type: none"> <li>• Dennis Norton ♦ <i>(Appointed Alternate by the City Selection Committee on 1/31/11, effective 5/2/2011. Term expires 5/31/2014)</i></li> </ul>
<p>League of California Cities <i>(Meets: Monterey Bay Division meets on the 1<sup>st</sup> Monday of every other month at 7 p.m. at various locations. Dinner meetings)</i></p>	<p>Open to All Council Members</p>
<p>Library Financing Authority <i>(Meets twice yearly in January and June Main Library)</i></p>	<ul style="list-style-type: none"> <li>• Sam Storey ♦</li> <li>• Michael Termini <i>(Alternate)</i></li> </ul>
<p>Library Joint Powers Board ▲ <i>(Meets: 1<sup>st</sup> Monday of each month at 7:30 p.m. at the Main Library Community Room)</i></p>	<ul style="list-style-type: none"> <li>• Sam Storey ♦</li> </ul>

Name of Board/Commission/Committee	Capitola Representative(s)
Monterey Bay Unified Air Pollution Control District ▲ <i>(Meets: 3<sup>rd</sup> Wednesday of each month at 1:30 p.m. at the District Office: 24580 Silver Cloud Ct., Monterey)</i>	<ul style="list-style-type: none"> <li>• Sam Storey ♦ <i>(Appointed by City Selection Committee on 1/26/2011. Term expires 12/31/2012)</i></li> </ul>
Santa Cruz County Children's Network <i>(Meets: Quarterly on the 1<sup>st</sup> Wednesday at Simpkins Family Swim Center, 979 17<sup>th</sup> Avenue, Santa Cruz)</i>	<ul style="list-style-type: none"> <li>• Sam Storey</li> </ul>
Santa Cruz County Conference & Visitors Council <i>(Meets: Last Wednesday at 3:00 p.m. every other month except for November when meeting is TBD, at Goodwill Industries, 350 Encinal Street, Santa Cruz)</i>	<ul style="list-style-type: none"> <li>• Sam Storey <i>(Appointed 4/28/10 by City Selection Committee. Generally a 2-year term.)</i></li> </ul>
Santa Cruz County Flood Control & Water Conservation District, Zone 5 <i>(Meets: Quarterly on the 4<sup>th</sup> Tuesday at 10 a.m. in the County Board of Supervisors Chambers, 701 Ocean Street)</i>	<ul style="list-style-type: none"> <li>• Kirby Nicol ♦</li> <li>• Dennis Norton <i>(Alternate)</i></li> </ul>
Santa Cruz County Integrated Waste Management Local Task Force <i>(Meets: 1<sup>st</sup> Thursday at 3:00 p.m. every other month at various locations or 701 Ocean Street)</i>	<ul style="list-style-type: none"> <li>• Stephanie Harlan</li> <li>• Lisa Murphy <i>(Alternate)</i></li> </ul>
Santa Cruz County Regional Transportation Commission (SCRTC) ▲ ■ <i>(Meets: 1<sup>st</sup> Thursday of each month except for July, at 9 a.m. at various locations)</i>	<ul style="list-style-type: none"> <li>• Kirby Nicol ♦</li> <li>• Dennis Norton <i>(Alternate)</i></li> </ul>
Santa Cruz County Sanctuary Inter-Agency Task Force <i>(Meets: As needed)</i>	<ul style="list-style-type: none"> <li>• Stephanie Harlan</li> </ul>
Santa Cruz County Sanitation District ▲ <i>(Meets: 1<sup>st</sup> &amp; 3<sup>rd</sup> Thursday of each month at 4:45 p.m. at the East Cliff Pumping Station on Lode St., Santa Cruz)</i>	<ul style="list-style-type: none"> <li>• Stephanie Harlan ♦</li> <li>• Sam Storey <i>(Alternate)</i></li> </ul>
Santa Cruz County Workforce Investment Board	<i>(The City Manager generally serves on this Board.)</i>
Santa Cruz Metropolitan Transit District Board ▲ ■ <i>(Meets: 3<sup>rd</sup> Friday of each month at 8:15 a.m. at Santa Cruz City Hall Council Chambers, 809 Center Street and other locations)</i>	<ul style="list-style-type: none"> <li>• Ron Graves <i>(Term expires 12/31/2014)</i></li> </ul>
Santa Cruz Regional 911 Board ▲	<ul style="list-style-type: none"> <li>• Jamie Goldstein</li> </ul>
The Capitola Public Safety & Community Service Foundation <i>(Meets: each month)</i>	<ul style="list-style-type: none"> <li>• Mike Termini <i>(Appointed at the 1/12/12 City Council meeting.)</i></li> </ul>

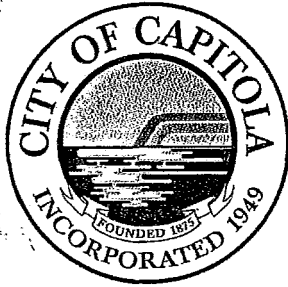
▲ = Members are required to File Statements of Economic Interest, Form 700

■ = Members are required to complete AB 1234 Ethics Training

♦ = Council Member appointment required

[11/12 md]

P:\City Clerk\Committees\Board Lists\2012\Board Reps Chart 2012\_County.docx



NOV 16 2012  
CITY OF CAPITOLA  
CITY CLERK

CITY OF CAPITOLA  
420 Capitola Avenue  
Capitola, CA 95010  
(831) 475-7300  
FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Capitola Commission on the Environment  
At Large Member / Council Appointee Member**

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** Rachell Summers

**RESIDENCE ADDRESS:** 501 Plum St. #51  
Capitola, CA 95010

**MAILING ADDRESS:** \_\_\_\_\_  
(If Different)

**EMAIL ADDRESS:** rsummers2223@att.net

**TELEPHONE NO.:** (H) \_\_\_\_\_ (W) \_\_\_\_\_ (C) 831-435-6242

**EMPLOYMENT:** Retired -

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

I have been interested in serving on a city committee because I love living in Capitola and want to give back to the community somehow. This particular commission is of interest to me because keeping Capitola environmentally friendly is a high priority for me. I am newly retired from administrative positions in higher education. I am enthusiastic, committed and have been a Santa Cruz resident for many years.

**DATE:** 11-16-2012

Rachell Summers  
(Signature of Applicant)

*Thank you!*

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010



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APPLICATION FOR SERVICE ON THE  
**Capitola Commission on the Environment  
Youth Member**

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** Madeline Marlatt

**RESIDENCE ADDRESS:** 2150 Francesco Cir. Capitola, CA, 95010

**MAILING ADDRESS:** N/A  
*(If Different)*

**EMAIL ADDRESS:** maddiemarlatt@rocketmail.com

**TELEPHONE NO.:** (HOME) (831) 476-3208 (CELL) (831) 247-8237

**SCHOOL:** Soquel High School

**EMPLOYMENT:** N/A

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** *(Use additional page if necessary)*

See additional page.

**DATE:** Nov. 16, 2012

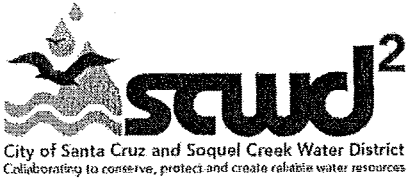
*Madeline Marlatt*  
*(Signature of Applicant)*

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010



I have lived and grown up in the City of Capitola for fifteen years. I appreciate the clean ocean water while I am swimming and surfing. Trash on the beach and graffitied walls do not appeal to me, or other citizens living in Capitola.

My experience as a short term intern with the Soquel Creek water district in 2011, helped me become more aware of environmental issues. I am eager to help the city maintain it's beauty. I am happy to volunteer as a youth member for the Commision on the Environment.



November 19, 2012

City of Capitola  
420 Capitola Avenue  
Capitola, CA 95010

Subject: Reference Letter for Maddie Marlatt

To Whom it May Concern,

I am writing a letter of recommendation for Maddie Marlatt who is interested in becoming a representative on Capitola's Commission on the Environment. I've known Ms. Marlatt for over 3 years and I feel she would be an ideal candidate as the Youth Member. Qualities that support Ms. Marlatt's capabilities include:

- She is exceptionally bright, smart, and driven. As a sophomore at Soquel High School, she is part of the Humanities academy and balances school, sports, and other extracurricular activities.
- She is truly a "local girl". As a student of the local public schools (Main Street, New Brighton, and Soquel High School) and a lifelong resident of Capitola, she knows her community and what is important to her peers and the younger generation.
- She has demonstrated her interest in the environment and volunteering. As an eighth grader, she volunteered at Soquel Creek Water District to help make a video on the environmental issues related to the proposed scwd<sup>2</sup> desalination project. Ms. Marlatt was very technically knowledgeable with the video editing program and spent time to learn and understand the material she was covering.

I believe that Maddie Marlatt would be a great asset to Capitola's Commission on the Environment and would be apt to representing the younger generation's viewpoints and perspectives. If you have any questions, please don't hesitate to contact me at 475-8501x153.

Sincerely,

Melanie Mow Schumacher, PE  
scwd<sup>2</sup> Public Outreach Coordinator



716-G Capitola Avenue  
Capitola, CA 95010  
Phone: (831) 475-6522  
Fax: (831) 475-6530

capitola soquel  
CHAMBER OF COMMERCE

November 5, 2012

City of Capitola  
Jamie Goldstein  
420 Capitola Avenue  
Capitola, Ca. 95010

Dear Jamie:

Christine Buechting now known as Christine Mc Broom has served on the City of Capitola's Finance Committee and is now the Chairperson. Christine's term is now up and she would like to remain on the committee representing the Business Community.

The Capitola-Soquel Chamber of Commerce at it's October 25<sup>th</sup> 2012 Board of Directors Meeting unanimously recommends Christine's appointment to the City Finance Committee.

The Chamber appreciates the opportunity to make this recommendation and look forward to Christine's appointment to the City Finance Committee.

Sincerely,

Toni Castro  
Chief Executive Officer



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CITY CLERK

CITY OF CAPITOLA  
420 Capitola Avenue  
Capitola, CA 95010  
(831) 475-7300  
FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Capitola Finance Advisory Committee**

Category: Business Representative  Council Member Appointee

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** Christine McBroom

**RESIDENCE ADDRESS:** 627 Gilroy Dr  
Capitola, Ca 95010

**MAILING ADDRESS:** \_\_\_\_\_  
(If Different)

**EMAIL ADDRESS:** Christine.McBroom@edwardjones.com

**TELEPHONE NO.:** (H) 831-247-7285 (C) \_\_\_\_\_ (M) 831-476-1604

**EMPLOYMENT:** Financial Advisor @ Edward Jones

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

Been on FAC for 2 yrs currently the Chairperson of the committee.

**DATE:** 11/2/12

Christine McBroom  
(Signature of Applicant)

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010



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Capitola, CA 95010  
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APPLICATION FOR SERVICE ON THE  
**Capitola Finance Advisory Committee**

Category: Business Representative  Council Member Appointee

PLEASE TYPE OR PRINT

NAME OF APPLICANT: Mary Navas

RESIDENCE ADDRESS: 879 Laurel Glen Rd  
Soquel, CA 95073

MAILING ADDRESS: \_\_\_\_\_  
(If Different)

EMAIL ADDRESS: mary.navas@comcast.net

TELEPHONE NO.: (H) 831.477.1613 (C) 831.325.9202 (W) 831.479.7785

EMPLOYMENT: Pacific Collegiate School (PCS)

DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE (Use additional page if necessary)

\_\_\_\_\_  
\_\_\_\_\_  
SEE Attached  
\_\_\_\_\_  
\_\_\_\_\_

DATE: 11-7-2012

Mary Navas  
(Signature of Applicant)

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010

**Item #: 9.A. Attach 5.pdf**

I am currently the Director of Business and Operations at Pacific Collegiate School (PCS), entering my 5<sup>th</sup> year of employment. My responsibilities include, but are not limited to budget formation, monitoring and revising three times a year as well as all human resource, and facilities maintenance and operations issues at the school. Prior to PCS, I had my own accounting and bookkeeping firm for eight years which serviced a variety of companies in Capitola, Santa Cruz, Watsonville and on occasion, San Jose.

I am a board member at Mountain Elementary School, in my 14<sup>th</sup> year of service to the district. I am also on the finance, development and facilities committees at PCS, and part of the management team at the school.

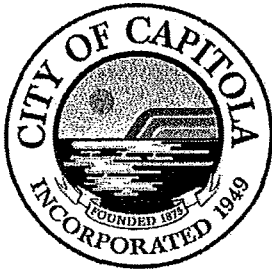
I would be honored to serve on your advisory committee and bring a wealth of public service knowledge with me.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Mary Navas". The signature is written in a cursive style with a large, sweeping initial "M".

Mary Navas



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420 Capitola Avenue  
Capitola, CA 95010  
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FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Capitola Finance Advisory Committee**

Category: Business Representative  Council Member Appointee

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** Jacques Bestrand

**RESIDENCE ADDRESS:** 601 Montway Ave.  
Capitola

**MAILING ADDRESS:** S/A  
(If Different)


**EMAIL ADDRESS:** jacques.bestrand@capitolocal.gov

**TELEPHONE NO.:** (H) 831.247.8184

**EMPLOYMENT:** Quantum Leap

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

NO ATTACHED

**DATE:** 11/26/12   
(Signature of Applicant)

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010

**Item #: 9.A. Attach 5.pdf**

APPLICATION FOR SERVICE ON THE CAPITOLA FINANCE ADVISORY COMMITTEE

Applicant: Jacques Bertrand  
Residence Address: 601 Monterey Avenue  
eMail Address: Jacques.bertrand@sbcglobal.net  
Telephone No: 831-247-6199  
Employment: Quantum Clean  
Experience:

I have been on the FAC for several years (since, I believe, 2007) and its chair for three years during that period. For the last four years, I have sat on the FAC as Capitola's City Treasurer. In addition to working on Capitola's financial and budget issues during this time, I have experience doing the same as a school board trustee and academic training in budget preparation as a Masters of Public Policy graduate.

I enjoy working on the City's financial issues. I have contributed too many of the recommendations that the City Council has successfully adopted including the PERS bond issue, recommendation for longer term budgets and the balancing of the competing interests for city services, including Capitola's commitment to Community Services.

I would consider it an honor to continue my service to Capitola in this capacity.

Jacques Bertrand

A handwritten signature in black ink, appearing to be 'JB' with a stylized flourish underneath.





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420 Capitola Avenue  
Capitola, CA 95010  
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APPLICATION FOR SERVICE ON THE  
**CAPITOLA TRAFFIC AND PARKING COMMISSION**

At-Large Council Member Appointee  Village Business Owner   
Village Resident

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** John Martorella

**RESIDENCE ADDRESS:** 505 Riverview Dr.

Capitola, Ca. 95010

**MAILING ADDRESS:**  
(If Different)

**EMAIL ADDRESS:** jmarto@pacbell.net

**TELEPHONE NO.:** (H) 831-475-8051 (C) 831-359-9685 (W)

**EMPLOYMENT:** City Of Watsonville Fire Department

**DESCRIBE YOUR QUALIFICATIONS AND INTEREST IN SERVING ON THE TRAFFIC AND PARKING COMMISSION:** *(Use additional page if necessary)*

Hello, I have been a city of Capitola resident since 1989 and have seen a lot of changes in our city over the last few years. As we all know, traffic and parking have always been an issue and I believe in offering solutions and recommendations based on collaborative team work as well as to support the goals and direction of the T & P Commission. I will bring a positive attitude to the table and look forward to contributing to the city that my family and I live in.

**DATE:** November 19th, 2012

(Signature of Applicant)

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010

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Capitola, CA 95010  
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FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Advisory Council to the Area Agency on Aging  
of the Santa Cruz and San Benito Counties**

**Representative**

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** Philip F. Pabich

**RESIDENCE ADDRESS:** 821 Columbus Drive  
Capitola, California

**MAILING ADDRESS:** 95010  
(If Different)

**EMAIL ADDRESS:** p\_pabich@sbcglobal.net

**TELEPHONE NO.:** (H) 464-8585 (C) 278-0184 (W) —

**EMPLOYMENT:** Retired

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

- 25 years as a middle manager for the West Valley - Mission Community College District in Saratoga and Santa Clara overseeing state-funded classes for older adults.
- Retired in 2006 as the dean of continuing education and most recently became a homeowner in Capitola (New Brighton) after living in the San Lorenzo Valley for 30 years.
- Please see attached page for more information....

**DATE:** 11/15/2012

Philip F. Pabich  
(Signature of Applicant)

**Mail or Deliver Application to:**  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010



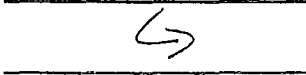
CITY OF CAPITOLA  
420 Capitola Avenue  
Capitola, CA 95010  
(831) 475-7300  
FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Advisory Council to the Area Agency on Aging  
of the Santa Cruz and San Benito Counties**  
**Representative**

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** Phil Pabich - continued from page 1.

**RESIDENCE ADDRESS:** Business Card



**MAILING ADDRESS:**  
(If Different)

**EMAIL ADDRESS:**

**TELEPHONE NO.:** (H) \_\_\_\_\_ ((

**EMPLOYMENT:**



**RETIRED PUBLIC EMPLOYEES' ASSOCIATION OF CALIFORNIA**  
300 T Street  
Sacramento, CA 95811-6912

**Phil Pabich**  
Health Benefits Chairperson  
Chapter 009 - SURF CITY SANTA CRUZ

**HEADQUARTERS:**  
Toll Free: (800) 443-7732  
Tel: (916) 441-7732  
Fax: (916) 441-7413  
E-Mail: rpeahq@rpea.com  
Website: www.rpea.com

**CONTACT INFORMATION:**  
Tel: (831) 278-0184  
Email: p\_pabich@sbcglobal.net

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

• Currently a board member for the Santa Cruz area Chapter of the Retired Public Employees Association (RPEA) and write a monthly newsletter column on insurance and health benefits.

• Earned a Ph.D. in Teacher Education and B.S. and M.S. in P.E.

• Married with 3 adult children and am interested in gerontology and helping elder adults in enriching their quality of life.

**DATE:** 11/15/2012

Phil P. Pabich  
(Signature of Applicant)

**Mail or Deliver Application to:**  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010



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FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Advisory Council to the Area Agency on Aging  
of the Santa Cruz and San Benito Counties**  
**Representative**

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** Melody Newcombe

**RESIDENCE ADDRESS:** 1763 44th Ave  
Capitola CA 95010

**MAILING ADDRESS:** \_\_\_\_\_  
(If Different)

**EMAIL ADDRESS:** Melannt@SBCglobal.net

**TELEPHONE NO.:** (H) \_\_\_\_\_ (C) 818-5258 (W) \_\_\_\_\_

**EMPLOYMENT:** Select medical-occupational therapist

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

I currently work as an occupational  
therapist in homecare - for Santa Cruz County.  
Have been in the medical industry for  
30 years - from sales to service - equipment -  
hospice.  
Feel I bring a lot of knowledge to  
the team effort

**DATE:** 11/21/12 Melody Newcombe  
(Signature of Applicant)

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010



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FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Advisory Council to the Area Agency on Aging  
of the Santa Cruz and San Benito Counties**  
**Representative**

PLEASE TYPE OR PRINT

NAME OF APPLICANT:

Linda J. Welsh

RESIDENCE ADDRESS:

175 Rabbits Run Rd.

Santa Cruz, CA 95060

MAILING ADDRESS:

*(If Different)*

EMAIL ADDRESS:

LJWelsh@PYParent.com

TELEPHONE NO.:

(H) 831-439-8369 (C) 831-234-5200 (W) same as cell

EMPLOYMENT:

Self-employed

DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE *(Use additional page if necessary)*

I am dedicated to contributing my 12 years  
of successful experience in identifying,  
assessing & planning for service options  
that will meet the unique & complex needs  
of our seniors.

See attached Resume & References

DATE: 11-25-12

Linda J. Welsh  
*(Signature of Applicant)*

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010

Linda J. Welsh  
175 Rabbits Run Road  
Santa Cruz, CA 95060-1526  
P: (831) 234-5200 / F: (831) 439-9092

**PROFESSIONAL EXPERIENCE SUMMARY:**

2010 – Present           **Parenting Your Parent**  
Geriatric Support & Medication Management Services, Owner, Executive Director

2002 – 2010           **The Mansion, Residential Care Facility for the Elderly**  
Assistant Administrator; Medication Director

2000 - 2002           **The Mansion, Residential Care Facility for the Elderly**  
Volunteer

1990 – 2002           **Sun Microsystems, Inc.**  
Corporate Real Estate Manager  
Worldwide Team Development Manager  
Quality Curriculum Development Liaison  
Worldwide Customer Relations Manager

1997 – 2000           **Santa Clara County District Attorney**  
Volunteer Mediator, Victim/Offender Mediation Services

1981 – 1990           **IBM**  
Systems Engineering Manager  
Branch Operations Manager

1975 – 1981           **Menlo Park City School District**  
Teacher

**PROFESSIONAL TRAINING/CERTIFICATIONS**

**CSA – State Certified Senior Advisor**

**California State Certified Administrator, RCFE**

University of California, Santa Cruz  
**Professional Sequence Award in Team Development**

California State University, Fresno  
**BA Degree Education with Honors**

Sun Microsystems Management Training  
**Performance Management Certification**  
**Advanced Quality Customer Skills Certification**

IBM/ROLM Management Training  
**Time/Style & Influence Management Certifications**  
**Sales Management Institute Training**

County of Santa Clara & Coast to Coast Mediation Center  
**Alternative Dispute Resolution Certification**

Boston Reed  
**Registered Pharmacy Technician**

**PROFESSIONAL MEMBERSHIPS:**

Alzheimer's Association  
Society of Certified Senior Advisors  
National Association of Professional Geriatric Care Managers  
National Pharmacy Technician Association  
Society for Professionals in Dispute Resolution

**REFERENCES (See Attached)**

Dr. John Gillette, Distinguished Life Fellow, American Psychiatric Association  
Dr. Offra Gerstein, Clinical Psychologist

LJWelsh



**John R. Gillette, M.D.**  
P.O. Box 8503  
Santa Cruz, CA 95061-8503  
Phone: (831) 818-2625 FAX: (831) 427-3887  
*Psychiatry*

July 18, 2011

To whom it may concern:

RE: **Linda J. Welsh**

Greetings,

I am writing you with regard to Linda's application to join the National Association of Professional Geriatric Care Managers, something I am doing with ease and pleasure.

I have been a psychiatrist in our Community Mental Health Services of Santa Cruz County and private practice for 37 years, specializing in geriatric psychiatry. I have known Linda for some six years, mostly interacting with her during my monthly home visits to The Mansion assisted care facility. Linda was the RCFE State Certified Administrator and Medication Director at this facility which cared for 12 to 20 elderly residents, all with varying degrees of dementia often complicated by depression, agitation or psychosis in addition to their medical conditions.

I have no hesitation in recommending her for membership in your organization, as I know her to be an excellent care manager and very much informed about all the residents there. This is of course extremely helpful as the patients themselves typically claim to feel fine, have no problems, etc., and are usually not able to comment on their situation in a meaningful manner. Linda has always been discrete, positive, warm, observant and practical in her care observations and suggestions. She has a very good understanding of common medical problems, knows when to refer to the physicians and is most appropriate in her interactions with residents and staff. It goes without saying that she is very professional in her work and most ethical.

If you have any questions, please feel free to contact me at the above numbers or via my County Mental Health telephone voice-mail at 831-454-5287.

Sincerely,

*Transmitted electronically - jgill@cruzio.com*

Board Certified in Psychiatry  
NPI: 1598756579  
Distinguished Life Fellow, American Psychiatric Association  
<JG/jg>

Offra Gerstein, Ph.D.  
Clinical Psychologist CA License # PSY 4707  
3333 Mission Drive Santa Cruz, CA 95065  
Phone 831-476-7666 Fax: 831-479-7005

January 12, 2011

To Whom It May Concern:

This is a letter of reference for Linda J. Welsh.

I became acquainted with Linda J. Welsh in her capacity as the Administrator and Medication Director of The Mansion when my mother became a resident on October 22, 2007.

During my frequent visits with my mother I had an opportunity to observe, evaluate and gain great regard for Ms. Welsh's skills, talents and capabilities as an administrator, manager of staff care providers and the residents' advocate.

When Ms. Welsh was on duty, it was apparent that her organizational skills, work ethic and commitment to residents' care were of the highest quality. She skillfully managed her staff and set the tone of competence and highest dedication to residents' care and wellbeing.

Managing residents' medications, contacting physicians, advising and consulting families and problem solving were handled by Ms. Welsh with exceptional skill.

Her professional and competent demeanor combined with her calm and caring approach to the residents and all of their issues, were reassuring, inspiring and confidence inducing to all who benefited from her experience and wisdom.

Ms. Welsh's knowledgeable and attentive style helped the residents and their families feel secure, safe, protected and well cared for in all circumstances. She employed a calm approach and used her keen sense of humor to quell fears and concerns as she helped uplift the mood of each resident.

I would highly recommend Ms. Welsh as a Geriatric Care Manager to anyone seeking help in finding placement and ongoing Care Management for a loved one. She is highly qualified in administration of patients' care and medication management. She has exceptional organizational and creative problem solving skills and is highly effective at mediating client's concerns. She is an outstanding professional and a fine human being.

Sincerely,  
Offra Gerstein

November 8, 2012

C. D. Finley  
870 Park Avenue  
Unit 312  
Capitola CA 95010

Mayor Michael Termini  
City of Capitola  
420 Capitola Ave  
Capitola, CA 95010

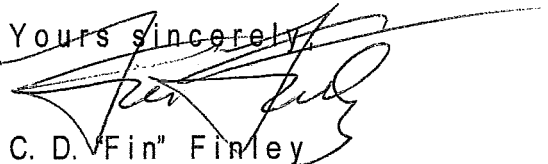
Dear City Council and Mayor Termini,

I hope you will consider me for the City of Captiola's representative on the Community Action Board of Santa Cruz County, a spot being vacated by George "Bud" Winslow at the end of his term.

I have lived in Capitola for the last few years and feel privileged to live in such a beautiful area. I moved to this area from the east coast and this is now my home. While my background is primarily in marketing, web and design, over the course of my getting to know the area I have stepped out of my comfort zone to volunteer at the Pacific Cove mobile home park after the devastation by the broken pipe, to bowl for the Boys & Girls club and to volunteer for the Homeless Project. I am quite familiar with the programs of the Community Action Board (CAB) and I am currently volunteering on a project with them. I have supported CAB's programs on a regular basis and feel that my knowledge of the area, my orientation as a community advocate and my ability to communicate and write would be useful.

It is my interest in the community that motivates me and I hope you will consider me for this spot. A resume is attached.

Yours sincerely,

A handwritten signature in black ink, appearing to read "C. D. Finley", written over a horizontal line.

C. D. "Fin" Finley



NOV 19 2012

CITY OF CAPITOLA  
CITY CLERK

CITY OF CAPITOLA  
420 Capitola Avenue  
Capitola, CA 95010  
(831) 475-7300  
FAX (831) 479-8879

APPLICATION FOR SERVICE ON THE  
**Community Action Board of Santa Cruz County, Inc., (CAB)**  
**Representative**

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:**

*Cynthia Desirée Finley ("FIN" FINLEY)*

**RESIDENCE ADDRESS:**

*870 Park Ave unit 312*

*Capitola CA 95010*

**MAILING ADDRESS:**  
(If Different)

*(same)*

**EMAIL ADDRESS:**

*Aleta.FIN@gmail.com*

**TELEPHONE NO.:**

*(H) 831.476.2277 (C) 831.207.6187 (W)*

**EMPLOYMENT:**

*self employed / see attached resume*

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

*I have supported the efforts of CAB and over the course of 3 years come to understand the programs and their impact on the community. I have served on multi-disciplinary teams and feel that my background and efforts to champion CAB and the SC at large community would be beneficial.*

**DATE:**

*11/14/12*

*C. D. Finley*  
(Signature of Applicant)

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010

C. D. "Fin" Finley

870 Park Ave. unit #312  
 Capitola, CA 95010  
 831 207-6187 (cell)  
 email: aletaFIN@gmail.com

## PROFESSIONAL EXPERIENCE

### **MARKETING COORDINATOR May 2011 - August 2012.**

David Lyng Real Estate, 2170 41st Avenue, Capitola CA

Reported to the Operations Manager and the Director of Sales, responsible for two monthly Coastal Homes magazine Print ad spreads per month, Mercury News ads, weekly Carmel Pine cone advertising and supporting an agent base of 150 agents in two counties whose needs varied from SEO advice to customized web banners. Developed online (Constant Contact) templates and associated branded graphic tools. Managed video upload process and video scheduling calendar, posted FB, Youtube, MLSlistings.com, Realtor.com, intranet and corporate web updates.

### **PROGRAM COORDINATOR/AA: December 2008 - April 2011**

First Congregational Church, 900 High Street, Santa Cruz CA

Supported a full calendar of special events including music, worship, and learning opportunities. Responsible for communications including web, e-communications, advertising and publicity while providing direct support to the worship team and parish administrator. Program/events support included weekly eNews, CMS website content development and SEO, production of ad tiles, posting events to Sentinel and other online calendars, graphic design, FB and online updates, managing member database and production of a 24 page quarterly publication.

### **MARKETING PROJECT MANAGER: June 2007 – October 2008**

Thomson Reuters, Philadelphia PA/Sunnyvale CA Corporate Markets – Scientific Division

Managing B2B projects utilizing Exact Target email, direct mail lead development, -CRM/Salesforce.com-Development of Web and Webinar campaigns. Worked on cross functional teams in US, Asia and Europe. Responsible for content development, improved interface, sales goals and SEO.

### **WEB CONTENT MANAGER: March 2006 – March 2007**

MRINetwork, Philadelphia, PA International global franchisee organization

Responsible for Content/CMS support for 1200 franchisees, content development and management, migration to new CMS with taxonomy and rebranding.

### **COMMUNICATIONS ADMINISTRATOR: October 2004 – March 2006**

Adath Israel Synagogue Merion, PA

Managed annual program of advertising, publicity and special events for a large synagogue. Worked cooperatively in conjunction with the board, officers and volunteer program directors. Developed welcome packet, standard branding and production of a 24-page monthly newsletter. Managed website portal including daily updates.

### **CLIENT PUBLICATIONS EDITOR and WEB EDITOR: January 1997 – October 2004**

Promissor (formerly called Assessment Systems Inc.) Bala Cynwyd PA

Responsible for managing the corporate website, intranet, and client project websites. Worked on project teams, responsible for internet research, lead on Internet Committee, watchdog on website usability, SEO, design upgrades. Promoted from Client Publications editor. \*Promissor is a Pearson company formerly owned by Houghton Mifflin.

## EDUCATION

- LaSalle University, Philadelphia, PA (3 years)  
 Writing Fellow; major: Professional Writing
- Simmons Graduate School of Management, Boston, MA  
 Marketing major (3 years; nontraditional student)

## Item #: 9.A. Attach 8.pdf

### SKILLS

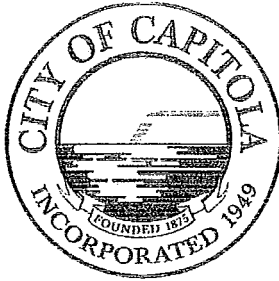
- \* Project management and analysis
- \* Program development
- \* Excellent written/verbal skills
- \* Web communications including CMS, social media, SEO
- \* Photography
- \* MS Office, including Access and Excel
- \* Layout/design Photoshop, InDesign
- \* Exact Target/Constant Contact email programs

### REFERENCES

Mike Whiting, Director of Sales David Lyng Real Estate 831 818-5111  
Sally Lyng, David Lyng, Morgan Lyng - David Lyng Real Estate 831 476-0100  
Brooke Graff, Parish Administrator FCC 831 426-2010x14  
Rev. Cordelia Strandkov FCC 831 426-2010x13  
Rev. Dave Grishaw-Jones FCC 831 426-2010x11

### VOLUNTEER ACTIVITIES

Bowling for Boys & Girls Club Santa Cruz (part of the David Lyng team)  
Santa Cruz Project Homeless Connect (one day homeless project)  
Santa Cruz County Homeless Census and Survey



NOV 19 2012  
CITY OF CAPITOLA  
CITY CLERK

CITY OF CAPITOLA  
420 Capitola Avenue  
Capitola, CA 95010  
(831) 475-7300  
FAX (831) 479-8879

*Alternate*

APPLICATION FOR SERVICE ON THE  
**Community Action Board of Santa Cruz County, Inc., (CAB)**  
**Representative**

PLEASE TYPE OR PRINT

**NAME OF APPLICANT:** George "Bud" Windsor

**RESIDENCE ADDRESS:** 870 Park Ave #312  
Capitola, CA 95010

**MAILING ADDRESS:** \_\_\_\_\_  
(If Different)

**EMAIL ADDRESS:** budwin11@gmail.com

**TELEPHONE NO.:** (H) (831) 476-2270 (W) \_\_\_\_\_

**EMPLOYMENT:** Retired

**DESCRIBE YOUR EXPERIENCE AND INTEREST IN SERVING ON THE ABOVE-NAMED COMMITTEE** (Use additional page if necessary)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**DATE:** 11/16/2012

George "Bud" Windsor  
(Signature of Applicant)

Mail or Deliver Application to:  
Capitola City Hall, Attn: City Clerk  
420 Capitola Avenue, Capitola, CA 95010

870 Park Avenue #312  
Unit 312  
Capitola, CA 95010

Capitola City Council  
City of Capitola  
420 Capitola, CA95010

Dear City Council Memembers:

It has been an honor and a privilege to serve on the Santa Cruz County Community Action Board, but I think it is time to give someone else an opportunity to step forward and serve, and I therefore offer my resignation at this time.

I've been involved with community action initiatives and advocacy since the 1960's when then President Johnson created the Office of Economic Opportunity referred to as "The War on Poverty". Back then, I was the Director of the Multipurpose Training Center at the University of Missouri-Kansas City which managed training programs for over 120 Community Action Agencies in the Midwest 11-state region under the auspices of the Federal Office of Equal Opportunity (OEO).

For over fifty years I have continued to be concerned about and involved with the issues of community welfare and the management response to the needs of families who live at or near the poverty line and to those individuals who need support to get on to a better path in life.

Programs of the Santa Cruz Community Action Board (CAB) are wonderful life-changing programs and those who make up the board are dedicated, conscientious hard working and effective members with whom I am proud to have been associated.

Yours truly,



George "Bud" Winslow





## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: CITY MANAGERS OFFICE

SUBJECT: CONSIDERATION OF AN ORDINANCE ADDING SECTION 8.07 (SINGLE-USE PLASTIC AND PAPER CARRYOUT BAG REDUCTION) TO REDUCE SINGLE-USE PLASTIC AND PAPER CARRYOUT BAGS; APPROVING A RESOLUTION ADOPTING A NEGATIVE DECLARATION AND MAKE CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS

---

**RECOMMENDED ACTION:** That the City Council:

1. Approve the attached Resolution adopting a Negative Declaration and make California Environmental Quality Act (CEQA) findings relating to the adoption of an Ordinance for the Reduction of Single-Use Plastic and Paper Carryout Bags;
2. Pass the first reading of the proposed Ordinance adding Chapter 8.07 to the Capitola Municipal Code relating to the Reduction of Single-Use Plastic and Paper Carryout bags; and
3. Provide direction on a fee for paper carryout bags.

**BACKGROUND:** In March of 2010 the City Council supported a regional effort to implement an Ordinance that would reduce the use of single-use plastic and paper carryout bags. Ordinances banning single-use bags are becoming more common as communities seek to address problems related to litter and solid waste. Because plastic takes a long time to break down or decompose, plastic litter causes a cumulatively adverse impact on both the natural and manmade environments.

The Council was presented with the proposed Ordinance in October 2011, February 2012 and July 2012. After the meeting in July 2012, Council directed staff to begin the CEQA review process on the Ordinance. Staff was also directed to return to the Council with the final draft Ordinance after the CEQA review was complete for a first reading.

The County of Santa Cruz, and the cities of Watsonville and Santa Cruz have adopted similar Ordinances which are in effect today.

**DISCUSSION:** The proposed Ordinance would ban the use of single-use plastic carryout bags at retail businesses, require all paper carryout bags have a charge to be determined by the City Council and encourage the use of reusable carryout bags in the City of Capitola, thereby reducing the number of bags manufactured, and the number that are released into the environment or disposed of in landfills. The ban would not apply to restaurants, nor would it apply to plastic or paper bags used to protect produce or bulk goods or other items as they are brought to the check out area and then placed into a carryout bag.

The proposed ordinance includes language requiring a fee for paper carryout bags, with the actual fee amount established by resolution. The fee is an important component of the proposed single-

## Item #: 9.B. Staff Report.pdf

use plastic bag ban, as the City's CEQA document states, "From the point of manufacturing to disposal, plastic bags generally use less energy and water and emit fewer emissions compared to 30% recycled fiber paper bags. Over its lifetime, a single-use paper bag has significant greater greenhouse gas emissions and results in great air emissions and water consumption related to manufacturing than plastic bags" (IS/ND, P. 11). It should be noted that impacts from plastic bags, as compared to paper bags, include increased litter and dispersal into marine and aquatic environments. Without a fee on paper bags, it is possible that a ban on plastic bags could simply shift consumers to paper bags, which could result in undesirable outcomes.

Fees on paper bags have been established in many jurisdictions that have adopted plastic bag bans. A review by Californians Against Waste found that 46 cities and counties in the state had enacted a 10 cent charge per bag, one county enacted a five cent charge, and six cities enacted no charge on paper bags. Santa Cruz County has enacted a 10 cent per bag fee for the first year, increasing to 25 cents on March 20, 2013. If the first reading of the ordinance is approved, and the Council determines the fee on the paper carry-out bags, staff will bring a resolution adopting the fee with the second reading of the ordinance.

**FISCAL IMPACT:** There are no fiscal impacts to the City.

### **ATTACHMENTS**

1. Draft Resolution adopting a Negative Declaration and CEQA findings;
2. Proposed Ordinance;
3. Public Comments.

Report Prepared By: Lisa G. Murphy  
Administrative Services Director

Reviewed and Forwarded  
by City Manager: 

RESOLUTION NO. \_\_\_\_

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CAPITOLA  
ADOPTING THE NEGATIVE DECLARATION FOR THE AN ORDINANCE OF THE CITY  
COUNCIL OF THE CITY OF CAPITOLA ENACTING A NEW CHAPTER 8.07 OF THE  
CAPITOLA MUNICIPAL CODE RELATED TO THE REDUCTION OF  
SINGLE-USE PLASTIC AND PAPER CARRYOUT BAGS**

WHEREAS, in accordance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines, an Initial Study was prepared for the City of Capitola Single-Use Bag Reduction Ordinance, which did not identify significant impacts, thus allowing for preparation of a Negative Declaration; and

WHEREAS, an Initial Study and Negative Declaration (IS/ND), dated October 16, 2012, were prepared for the City of Capitola Single-Use Bag Reduction Ordinance; and

WHEREAS, the IS/ND was circulated for agency and public review and comment on October 18, 2012 for a 30-day period that ended November 16; and

WHEREAS, two comment emails were received on the IS/ND; and

WHEREAS, a summary of comments on the IS/ND and responses to environmental comments was prepared (dated November 30, 2012) (Exhibit A), which together with the comments, are included as part of the IS/ND; and

WHEREAS, the IS/ND has been completed in compliance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq, the Guidelines for Implementation of the California Environmental Quality Act (14 Cal. Code Regs. Section 15000 et seq.) (the "State CEQA Guidelines") and local procedures adopted pursuant thereto; and

WHEREAS, the City Council considered the IS/ND, public comments, and responses at a public hearing held on December 13, 2012;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Capitola as follows:

- The City Council hereby finds that it has considered the Negative Declaration together with the Initial Study, public comments, the Summary of Comments and Responses, and finds that the Negative Declaration (dated October 16, 2012) and supporting documents reflects the City Council's independent judgment and analysis, as required by Public Resources Code Section 21082.1.
- The City Council finds on the basis of the whole record before it (including the Initial Study, comments received and responses) that there is no substantial evidence that the project will have a significant effect on the environment.
- The City Council hereby adopts the Negative Declaration and finds that the Initial Study has been completed in compliance with CEQA, the State CEQA Guidelines and local procedures adopted pursuant thereto.

**Item #: 9.B. Attach 1.pdf**

RESOLUTION NO. \_\_\_\_

- All environmental documents and other materials that constitute the record of proceedings upon which this decision is based, are located at the City of Capitola, 420 Capitola Avenue, Capitola, California 95010.

I HEREBY CERTIFY that the foregoing Resolution was passed and adopted by the City Council of the City of Capitola at its regular meeting held on the 13<sup>th</sup> day of December, 2012, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
Michael Termini, Mayor

ATTEST:

\_\_\_\_\_, CMC  
Susan Sneddon, City Clerk

DRAFT



**CITY OF CAPITOLA  
Notice of Intent to  
Adopt a Negative Declaration**

**PROJECT:** City of Capitola Single-Use Bag Reduction Ordinance

**PROJECT LOCATION:** City of Capitola

**APPLICANT:** Lisa Murphy

**PROJECT DESCRIPTION:** The project consists of an ordinance to add Chapter 8.07 to the City of Capitola Municipal Code to reduce single-use plastic and paper bags, commonly referred to as "carryout" bags. As stated in the draft ordinance, the intent is to eliminate the common use of plastic single-use carryout bags, to encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general. The project would ban the use of single use plastic carryout bags by any retail establishment (with specified exceptions, including restaurants), require that all paper carryout bags have a minimum of 40% post-consumer recycled content, require retail establishments to impose a charge for each single-use paper carryout bag provided to customers at the point of sale, and encourage retail establishments to make reusable bags available for sale to customers at a reasonable price.

**Significant Effects on the Environment:** None.

The City of Capitola has reviewed the proposed project and has determined that the project will not have a significant effect on the environment. A copy of the Negative Declaration and Initial Study document may be reviewed or obtained at the address below and is available on the City of Capitola website at [www.ci.capitola.ca.us](http://www.ci.capitola.ca.us):

City of Capitola  
420 Capitola Avenue  
Capitola, Ca 95010

Comments on the Mitigated Negative Declaration should be submitted in writing to Lisa Murphy at the address listed above from October 18, 2012 through November 16, 2012. The Negative Declaration and project will be considered at a public hearing before the City of Capitola City Council on December 13, 2012 at 7:00 PM at the Capitola City Hall at the address above.

If you have any questions or comments, please contact Lisa Murphy at (831) 475-7300 or email at: [lmurphy@ci.capitola.ca.us](mailto:lmurphy@ci.capitola.ca.us).



## CITY OF CAPITOLA NEGATIVE DECLARATION

The City of Capitola has prepared this Negative Declaration for the following described project:

**PROJECT:** City of Capitola Single-Use Bag Reduction Ordinance

**PROJECT LOCATION:** City of Capitola

**APPLICANT:** City of Capitola

**PROJECT DESCRIPTION:** The project consists of an ordinance to add Chapter 8.07 to the City of Capitola Municipal Code to reduce single-use plastic and paper bags, commonly referred to as "carryout" bags. As stated in the draft ordinance, the intent is to eliminate the common use of plastic single-use carryout bags, to encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general. The project would ban the use of single use plastic carryout bags by any retail establishment (with specified exceptions, including restaurants), require that all paper carryout bags have a minimum of 40% post-consumer recycled content, require retail establishments to impose a charge for each single-use paper carryout bag provided to customers at the point of sale, and encourage retail establishments to make reusable bags available for sale to customers at a reasonable price.

**FINDINGS:** The City of Capitola has reviewed the proposed project and has determined, based on the attached Initial Study, that the project will have no or less-than-significant impacts on the environment. Consequently, adoption of a Negative Declaration is appropriate. An Environmental Impact Report is not required pursuant to the *California Environmental Quality Act of 1970 (CEQA)*. This environmental review process was conducted and the attached Initial Study was prepared in accordance with the State *CEQA Guidelines*.

**BASIS OF FINDINGS:** The Initial Study finds that all direct and potentially indirect impacts that could be caused by the project are less than significant.

  
By: Jamie Goldstein, City Manager

10/16/12  
Date

# **CITY OF CAPITOLA**

420 CAPITOLA AVENUE

CAPITOLA, CA 95010

PHONE: (831) 475-7300 FAX: (831) 479-8879

## ***INITIAL STUDY***

### **I. BACKGROUND INFORMATION**

<b>Project Title:</b>	City of Capitola Single-Use Bag Reduction Ordinance
<b>Application No.:</b>	Not Applicable
<b>Project Location:</b>	Citywide
<b>Name of Property Owner:</b>	Not Applicable
<b>Name of Applicant:</b>	Not Applicable
<b>Assessor's Parcel Number(s):</b>	Citywide
<b>Acreage of Property:</b>	Not Applicable
<b>General Plan Designation:</b>	Citywide
<b>Zoning District:</b>	Citywide
<b>Lead Agency:</b>	City of Capitola
<b>Prepared By:</b>	Stephanie Strelow, Strelow Consulting
<b>Date Prepared:</b>	October 15, 2012
<b>Contact Person:</b>	Lisa Murphy, Administrative Services Director
<b>Phone Number:</b>	(831) 475-7300

## II. DESCRIPTION OF PROJECT AND ENVIRONMENTAL SETTING

### A. Background

In July of 2012, the Capitola City Council directed staff to prepare an ordinance to regulate and reduce single-use carryout bags within the City. City staff has worked with local agencies as part of the Integrated Waste Management Technical Advisory Committee (TAC) since 2010 to create a model single-use bag reduction ordinance that could be tailored to each individual agency while keeping rules for compliance similar throughout the county. The County of Santa Cruz adopted such an ordinance in 2011, which went into effect on March 20, 2012, after adoption of a Mitigated Negative Declaration and settlement of a legal challenge brought by the Save the Plastic Bag Coalition (SPBC) organization. The City of Santa Cruz adopted a similar ordinance in June 2012, which will go into effect on April 13, 2013. The City of Santa Cruz ordinance and Negative Declaration also were legally challenged by the SPBC.<sup>1</sup> Locally, the cities of Watsonville, Carmel and Monterey also have adopted similar ordinances. Additionally, over 50 jurisdictions throughout California have already taken action to pass local regulations to regulate single-use carryout bags, including San Jose, San Francisco, Oakland, Los Angeles County, Manhattan Beach, and Marin County among others, as well as countries around the world.

Background on Bag Types/Use. Nationwide, plastic bags and sacks comprised about 0.3% of the total solid waste stream in 2010, and approximately 11.5% of the plastic bags, sacks and wraps used nationwide (except for trash bags) were recycled in 2010 (SOURCE V.13a<sup>2</sup>). In California, plastics of all types comprise approximately 10% of the state's waste stream (SOURCE V.4). Nearly 20 billion single-use high density polyethylene (HDPE) plastic grocery bags are used annually in California (SOURCE V.8), and Californians discard over 100 plastic bags per second (Ibid.). In 2009, the recycling rate for regulated plastic carryout bags regulated as a result of passage of AB2449 was 3% (SOURCE V.5).

Nationwide, paper bags and sacks comprised about 0.4% of the total solid waste stream in 2010 (SOURCE V.13a), and according to the most currently available estimates from the U.S. Environmental Protection Agency (EPA), approximately 50% of the paper bags and sacks used nationwide were recycled in 2009 (SOURCE V.13b). "Kraft"<sup>3</sup> paper bags are recycled at a significantly higher rate than single-use plastic bags at an estimated rate of approximately 21% (SOURCE V.8). The recycled content of paper bags was historically 30%

---

<sup>1</sup> In July 2011, the California Supreme Court ruled in the case of *Save the Plastic Bag Coalition v. City of Manhattan Beach* and found that the Court of Appeals erred by concluding there was substantial evidence to support a fair argument that a city's plastic bag ordinance might significantly affect the environment. The Court ruled that while some increase in the use of paper bags was foreseeable, and the production and disposal of paper products is generally associated with a variety of negative environmental impacts, no evidence suggested that paper bag use by the city's consumers in the wake of a plastic bag ban would contribute to those impacts in any significant way. (The City's population is under 40,000 with less than 220 small commercial businesses.) Therefore, a negative declaration was sufficient to comply with the requirements of the CEQA.

<sup>2</sup> All references and data sources are presented in Section V of this Initial Study.

<sup>3</sup> Kraft paper is paper produced by the kraft process from wood pulp. The kraft process is a technology for conversion of wood into wood pulp consisting with a chemical process. Kraft paper is usually a brown color but can be bleached to produce white paper (SOURCE V.5a).



post-consumer recycled content, although most supermarkets in California have switched to 40% recycled content paper bags (SOURCE V.8). Single-use paper grocery bags typically have a larger carrying capacity than the HDPE plastic bags (estimated as 1.5 paper bag to 1 plastic bag).

Single-use biodegradable plastic bags, typically made from synthetic or biologically produced polyesters, are designed to degrade (SOURCE V.8). They are about the same size as HDPE bags, but degrade when placed in the proper environment (i.e., a composting facility). Although they are thought to be an overall lower environmental impact alternative to HDPE plastic bags, they have greater environmental impacts at manufacture (Ibid.).

Reusable bags can be made from plastic or cloth and are designed to be used up to hundreds of times. Assuming the bags are reused at least a few times, reusable bags have significantly lower environmental impacts, on a per use basis, than single-use bags (SOURCE V.11); the amount of reuse is further discussed in section III.C.3. Some life-cycle assessments indicate that use of the non-woven plastic reusable bag results in particularly large environmental benefits (Ibid.).

Regulatory Background. The California Integrated Waste Management Act of 1989, which is administered by the California Department of Resources Recycling and Recovery, requires each city and county to develop a source reduction and recycling element of an integrated waste management plan containing specified components, including a source reduction component, a recycling component, and a composting component. With certain exceptions, the source reduction and recycling element of that plan is required to divert 50% of all solid waste from landfill disposal or transformation by January 1, 2000, through source reduction, recycling, and composting activities. AB 341, which was passed by the California Legislature in 2001, makes a legislative declaration that it is the policy goal of California that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020.

In 2006 California enacted AB 2449 (Chapter 845, Statutes of 2006), which became effective on July 1, 2007. The statute requires that stores (of certain sizes) that provide plastic carryout bags to customers must provide at least one plastic bag collection bin in an accessible spot to collect used bags for recycling. The store operator must also make reusable bags available to shoppers for purchase. The legislation indicates that the California Integrated Waste Management Act of 1989 establishes an integrated waste management program and establishes requirements for the recycling and reuse of various products, including metallic discards, compost, plastic packaging containers, and newsprint. As written in the bill, the intent of AB2449 is to "encourage the use of reusable bags by consumers and retailers and to reduce the consumption of single-use bags." As stated in the bill, the Legislature declares all of the following:

- "(1) On a global level, the production of plastic bags has significant environmental impacts each year, including the use of over 12 million barrels of oil, and the deaths of thousands of marine animals through ingestion and entanglement.
- (2) Each year, an estimated 500 billion to 1 trillion plastic bags are used worldwide, which is over one million bags per minute, and of which billions of bags end up as litter each year.

(3) Most plastic carryout bags do not biodegrade which means that the bags break down into smaller and smaller toxic bits that contaminate soil and waterways and enter into the food web when animals accidentally ingest those materials.”

AB 298 currently is pending before the California Legislature. With specified exceptions, the bill would, as of January 1, 2014, prohibit stores that have a specified amount of dollar sales or retail floor space from providing a single-use carryout bag to a customer. The bill require these stores to meet other specified requirements regarding providing recycled paper, compostable or reusable bags to customers.

### **B. Project Description**

The project consists of an ordinance to add Chapter 8.07 to the City of Capitola Municipal Code to reduce the use of single-use plastic and paper bags, commonly referred to as “carryout” bags. As stated in the draft ordinance, the intent is to eliminate the common use of plastic single-use carryout bags, to encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general. The project would: a) ban the use of single use plastic carryout bags by any retail establishment unless otherwise exempted through a special exemption through the City Manager; b) require that all paper carryout bags have a minimum of 40% post-consumer recycled content; c) require retail establishments to impose a charge for each single-use paper carryout bag provided to customers at the point of sale; and d) encourage retail establishments to make reusable bags available for sale to customers at a reasonable price. The amount of the charge for paper bags will be determined by the City Council at the time it considers adoption of the ordinance. The proposed regulations would not apply to plastic or paper bags used to protect produce, meat, or otherwise used to protect items as they are put into a carryout bag at checkout, such paper bags to protect bottles, plastic bags around ice cream or wet items, paper bags used to weight candy, paper pharmacy bags or paper bags to protect greeting cards. The draft ordinance is included in Attachment A.

“Retail establishment” or “retail store” means all sales outlets, stores, shops, vehicles or other places of business located within the City of Capitola, which operate primarily to sell or convey goods, directly to the ultimate consumer. Restaurants, defined as an establishment whose principal business is the sale of prepared food for consumption either on or off premises, are not covered under this ordinance. “Exempted uses” means those point-of-purchase or delivery sales, which have received a special exemption, through the City Manager or the Manger’s designee, allowing single-use bags.

The proposed ordinance requires retail establishments to indicate on the customer transaction receipt the number of paper carryout bags provided and the total amount charged. The City Council also may review the charge amount every year from the date of adoption, to judge its effectiveness. The charge for paper bags would not be charged to customers participating in the California Special Supplemental Food Program for Women, Infants, and Children, the State Department of Social Services Food Stamp program, or other government-subsidized purchase programs for low-income residents.

According to the findings in the draft ordinance, compostable plastic carryout bags, as currently manufactured, are designed to remain intact until placed in a professional compost facility with a high heat level, so they do not degrade quickly as litter or other materials. Mixing compostable bags with regular plastic bags prevents recycling or composting either of them. Production of compostable bags consumes nearly as much fossil fuel as non-compostable bags and compostable bags do not solve the problems of wildlife damage, litter, or resource use addressed by the proposed ordinance. Therefore, according to the findings in the proposed ordinance there is no exemption in this ordinance for compostable carryout bags.

The ordinance would take effect three months after final adoption. Sixty days before the ordinance would take effect, the City of Capitola would mail or deliver a copy of the ordinance to every retail establishment within city limits that would be covered by the ordinance, and would also distribute a reproducible placard to each store that is designed to inform shoppers of the City's policy for carryout bags.

### **C. Agencies Whose Approval is Required**

None are known other than the City of Capitola.

### **D. Environmental Setting**

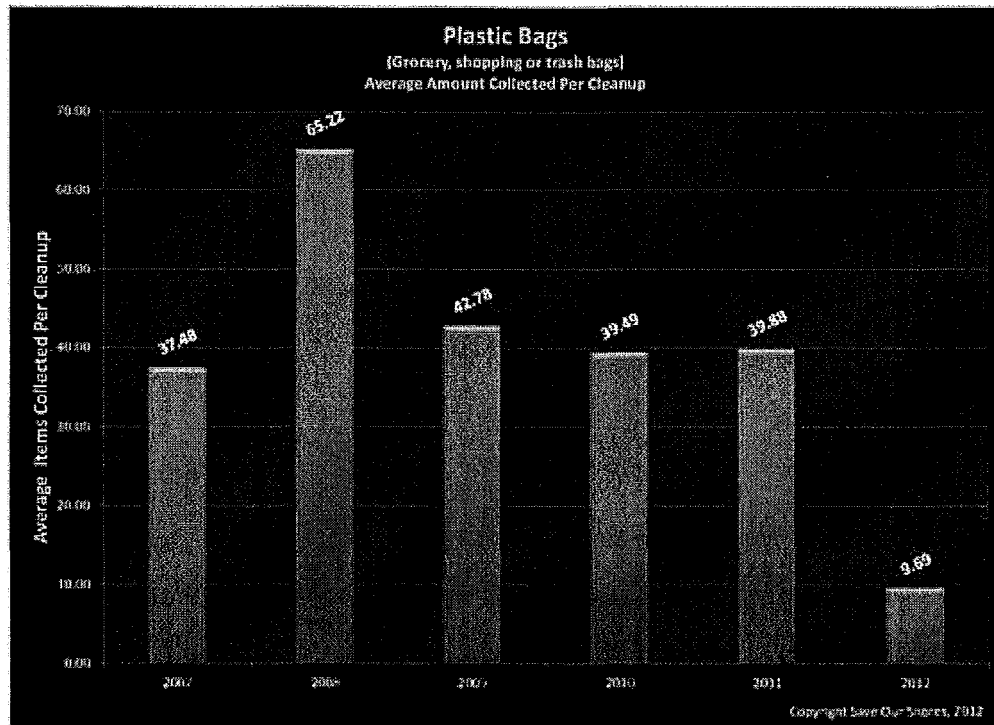
The City of Capitola is located within Santa Cruz County along Monterey Bay, approximately 75 miles south of San Francisco, 25 miles south of San Jose and 40 miles north of Monterey (see Figure 1). Capitola is a small coastal community, located just south of the City of Santa Cruz, and has a land area of 1.7 square miles with a population of approximately 10,000 residents. Capitola is a popular visitor destination due to its beaches, historic charm, visitor amenities, and scenic location. The heart of Capitola is the Village, which features an assortment of shops, restaurants, vacation rentals, and recreational amenities. Capitola is also home to the Capitola Mall and other region-serving retail establishments along 41st Avenue (SOURCE V.1a).

Solid waste (refuse, recycling and yard waste) in Capitola is collected by Green Waste Recovery (GWR) and is transferred to the Monterey Peninsula Class III Landfill located in the City of Marina for disposal. Curbside recycling is provided within the City of Capitola. Capitola is currently achieving a 67% waste reduction through recycling, and it has a goal of attaining a 75% reduction by 2012.

The Monterey Bay is a federally designated national marine sanctuary. The Monterey Bay National Marine Sanctuary (MBNMS) was designated in 1992 and extends from Marin County to Cambria. The MBNMS encompasses a shoreline length of 276 miles and 5,322 square miles of ocean, extending an average distance of 25 miles from shore (SOURCE V.8). At its deepest point, the MBNMS reaches down 10,663 feet (more than two miles). The MBNMS encompasses a range of habitats from sandy beaches to rocky intertidal areas to open ocean, as well as the nation's largest kelp forest and submarine canyon (Ibid.). Its highly productive biological communities host one of the highest levels of marine biodiversity in the world, including twenty-six threatened and endangered species. The MBNMS is adjacent to one of the largest urban concentrations in North America with

several population centers of approximately eight million people living within 50 miles of its shoreline, many who rely on MBNMS resources for pleasure or work (Ibid.).

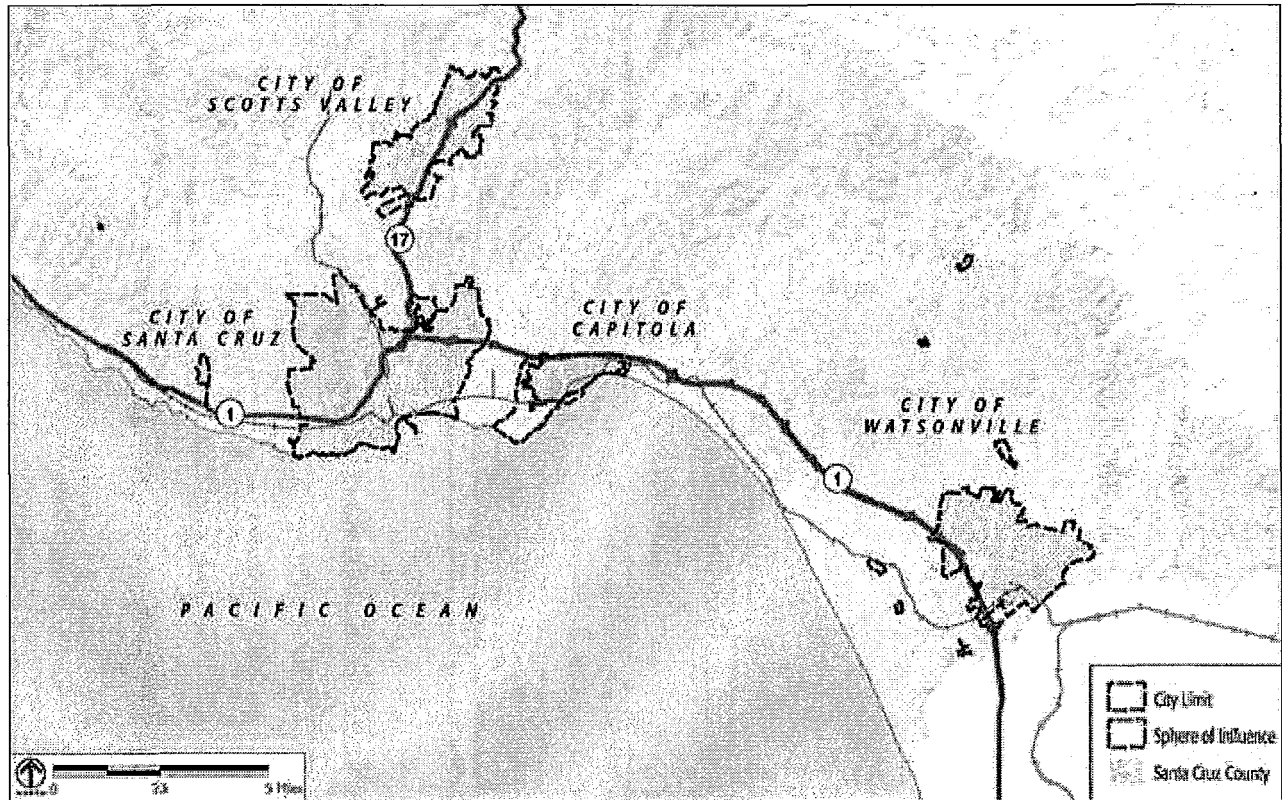
Save Our Shores (SOS) is a Santa Cruz-based marine conservation non-profit organization with a mission to care for the marine environment through ocean awareness, advocacy, and citizen action. As part of its activities, SOS conducts beach, river, and inland cleanups in the coastal regions of Santa Cruz, San Mateo, and Monterey Counties. During the period from June 2007 to September 2012, it conducted 905 cleanups<sup>4</sup> where volunteers removed a total of 35,146 plastic bags. Twenty-three of these cleanups were conducted on the City of Capitola beaches in which 210 plastic bags were removed. Regionally, if left unchecked, these collected plastic bags would have likely entered the marine environment of the Monterey Bay National Marine Sanctuary. Since the implementation of local bag reduction ordinances, the average number of plastic bags collected per cleanup decreased from approximately 40 to 10 bags according to Save Our Shores data as summarized below (Dockendorf, personal communication, September 2012).



SOURCE: Save Our Shores

<sup>4</sup> A "cleanup" is either a beach or river cleanup organized by Save Our Shores where we recruit volunteers to clean the beach or river for a 2-3 hour period. The volunteers collect data on everything they find on our data card that has over 45 different items.

**FIGURE 1: Regional Location**



**SOURCE:** Imagine Capitola – City of Capitola General Plan Update

### III. ENVIRONMENTAL CHECKLIST

**Environmental Factors Potentially Affected by the Project:** The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture & Forest Resources	✓	Air Quality
✓	Biological Resources		Cultural Resources		Geology / Soils
✓	Greenhouse Gas Emissions		Hazards & Hazardous Materials	✓	Hydrology / Water Quality
✓	Land Use / Planning	✓	Mineral Resources		Noise
	Population / Housing		Public Services		Recreation
✓	Transportation / Traffic	✓	Utilities / Service Systems	✓	Mandatory Findings of Significance

#### A. Instructions

1. A brief explanation is required (see VI. "Explanation of Environmental Checklist Responses") for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question (see V. Source List, attached). A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that any effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier Analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case a discussion should identify the following on attached sheets:
  - a) *Earlier Analysis used.* Identify earlier analyses and state where they are available for review.
  - b) *Impacts adequately addressed.* Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) *Mitigation measures.* For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. The explanation of each issue should identify:
  - a) The significance criteria or threshold, if any, used to evaluate each question; and
  - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

### **B. Use of Earlier Analyses**

The preparation of this Initial Study has drawn from data and analyses contained in the following two studies.

1. A "Master Environmental Assessment" (MEA) on Single-Use and Reusable Bags (March 2010) was prepared for Green Cities California<sup>5</sup> by ICF International pursuant to provisions of the State CEQA Guidelines that authorize the use of MEAs "in order to provide information which may be used or referenced in EIRs or negative declarations" (CEQA Guidelines Section 15169). According to the State CEQA Guidelines, a MEA is suggested "solely as an approach to identify and organize environmental information for a region or area of the state." The 2010 MEA addresses single-use or disposable grocery shopping bags, and

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<sup>5</sup>According to its website, Green Cities California (GCC) is a coalition of twelve of California's largest and most environmentally progressive local governments with a mission to accelerate the implementation of sustainability policies and programs through collaborative action. Member agencies include Marin County, the City/County of San Francisco, and the cities of Berkeley, Hayward, Los Angeles, Oakland, Pasadena, Richmond, San Diego, San Jose, Santa Barbara and Santa Monica.

brings together a comprehensive collection of information about single-use grocery and reusable bags including existing regulations, life-cycle analysis, and potential impacts on the environment to help cities and counties to determine the significance of actions that they may take to cut back on the use of single-use grocery bags (SOURCE V.11).

An MEA does not analyze a specific project or the significant effects of a project and does not adopt mitigation measures to avoid or reduce the significant impacts of a project. The MEA prepared for Green Cities California includes review and summarization of existing research related to the environmental impacts of different types of grocery shopping bags, including single-use bags (paper and plastic) as well as reusable bags. To the extent that reliable information regarding different types of plastic, paper, and reusable materials is available in the literature, they are included in the MEA. All stages in the lifecycle of bags are addressed, including land use, manufacturing, distribution, use, and end-of-life effects, to the extent that this information is available in the literature. The MEA also examines the pertinent studies that evaluated the impacts of charges and bans on the consumption, use and reuse of grocery shopping bags (SOURCE V.11). Thus, the MEA provides useful and current data and analyses that were used to guide analyses in this Initial Study.

2. The County of Santa Cruz Mitigated Negative Declaration and Initial Study on "Single Use Bag Reduction Ordinance" (February 2011) is a local environmental document that also draws from the MEA and includes additional reviews and some local data. This document (including a separate Responses to Comments section) also provides extensive background data and summary of research and findings related to impacts of plastic and paper bags.

These two documents are hereby "incorporated by reference" pursuant to the State CEQA Guidelines section 15150. An EIR or Negative Declaration may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. Where an EIR or Negative Declaration uses incorporation by reference, the incorporated part of the referenced document shall be briefly summarized where possible or briefly described if the data or information cannot be summarized. Incorporation by reference is most appropriate for including long, descriptive, or technical materials that provide general background. This Initial Study incorporates by reference some of the background information in these two documents for certain topics as discussed below in subsection VI. In particular, the Initial Study references the County's documents with regard to: estimating shifts to reusable and paper bags (pages 12-13); review and overview of life cycle assessments of different bag types (page 14-19); and general impacts to wildlife and marine species impacts to wildlife due to ingestion and/or entanglement of plastic bags, debris and pellets (page 36-37). The City's incorporation by reference of the County's documents includes the County's responses to comments. Both the MEA and County documents are on file and may be reviewed at the City of Capitola, 420 Bay Avenue, Capitola, CA during business hours: Monday through Friday, 8 AM to 12 PM and 1 to 5 PM. The MEA document also is available online at: <http://greencitiescalifornia.org/assets/MEA-Single-Use-Bags.pdf>



### **C. Impact Analysis Assumptions for this Study**

In assessing potential impacts of the proposed ordinance, several key assumptions are carried through the analyses. These are summarized below and further described in the following subsections.

- *It is recognized that there are environmental consequences of using paper bags as well as plastic bags. Impacts resulting from single-use plastic bags include increased litter and dispersal into marine and aquatic environments that can cause water quality contamination and impacts to sensitive habitats and species. From the point of manufacturing to disposal, plastic bags generally use less energy and water and emit fewer emissions compared to 30% recycled fiber paper bags. Over its lifetime, a single-use paper bag has significantly greater greenhouse gas (GHG) emissions and results in greater air emissions and water consumption related to manufacturing than plastic bags.*
  - *Reusable bags have been found to have fewer impacts than other bags because they are generally used multiple times, and the overall environmental impacts due to the life cycle of a reusable bag would be expected to be significantly lower than the overall environmental impacts of a plastic or paper carryout bag, and any conversion from the use of plastic carryout bags to reusable bags would be reasonably expected to result in an environmental benefit.*
  - *The purpose of the proposed ordinance is to reduce the use of all single-use carryout bags, and the proposed charge for recycled content paper bags will serve as an incentive to reduce single-use carryout bags as evidenced by experience in other communities.*
  - *Implementation of the proposed ordinance would eliminate the annual use of approximately 18,825,000 plastic carryout bags, resulting in an estimated shift to approximately 65% reusable bags and 35% recycled paper bags.*
  - *Reusable bags are estimated to be used at least twice a week and would be required by ordinance to be able to be used at least 125 times. Thus, reusable bag use is estimated to increase annually by 117,650 bags, and recycled paper bag use would increase by approximately 6,590,000 bags annually.*
1. **Intent to Reduce Single-Use Bags and Encourage Reusable Bags.** The purpose of the proposed ordinance is to reduce the use of all single-use bags. A charge on paper carryout bags is included in the proposed ordinance as an incentive to reduce single use of paper bags and to encourage use of reusable bags. The amount of the charge will be determined by the City Council at the time it considers adoption of the ordinance. Experience in other communities has shown a reduction in single-use bags when a charge has been imposed, and thus, it appears to be an appropriate incentive. Further details regarding charge amounts enacted in other jurisdictions are provided below in subsection (2). The proposed ordinance requires retail establishments to identify the number of paper carry out bags provided and the total amount charged on the receipt. Further, the ordinance permits the City Council to review the charge amount every year from the date of adoption, to judge its effectiveness.

The proposed ordinance further requires that paper bags have a 40% post-consumer recycled content. Paper shopping bags with 40% post consumer recycled content

are easily available, and such bags are in wide use by merchants in Capitola. An unbleached kraft paper bag has been reported to contain approximately 30% post-consumer recycled content, and most supermarkets in California have switched to bags with 40% recycled content (SOURCE V.8).

The proposed ordinance encourages businesses to make reusable bags available to customers for a reasonable cost. Many grocery and other retail establishments throughout the City of Capitola already offer reusable bags for sale at a price as low as \$1.00. The state of California defines reusable bags as "a bag with handles that is specifically designed and manufactured for multiple reuse and is either made of cloth or other machine washable fabric, and/or thick, durable plastic (at least 2.25 mils thick)."<sup>6</sup>

2. Change in Bag Type Use with New Regulations. Based on a review of retail businesses located within the City of Capitola (see Attachment B), City staff estimates that existing retail businesses within the City provide approximately 51,575 plastic bags and 27,310 paper bags daily for customers' purchases. On an annual basis, bag use within Capitola is estimated to total approximately 18,825,000 plastic bags and approximately 9,970,000 paper bags, which would be a conservative worst-case estimate as not all businesses are open seven days a week. This current level of use establishes the baseline condition; and this analysis compares the environmental impacts of a change to this baseline. Thus, adoption and implementation of the proposed ordinance would eliminate use of an estimated 18,825,000 plastic carryout bags annually that would be replaced by 40% recyclable content paper bags and reusable bags.

When the new regulations take effect, there could be a short-term increase in the use of recyclable paper bags with the elimination of plastic bags. However, studies and experience in other areas have shown that charges for carryout bags have been highly effective in reducing the number of single-use carryout bags as documented in the MEA, the County of Santa Cruz Bag Ordinance Initial study, and the EIR prepared by Los Angeles County for its bag reduction ordinance. A review of studies by the County of Santa Cruz found that the use of single-use plastic and/or paper bags was reduced by 50-90% as a result of imposition of a charge on paper bags (SOURCE V.8). For example, the imposition of a charge on both plastic and paper single-use carryout bags by Denmark in 1994 resulted in a 66% reduction in use of both types of bags, and imposition of a charge on single-use plastic carryout bags in Ireland in 2001 resulted in a reduction of over 90% in the number of plastic bags used (SOURCE V.6a). In January 2010, Washington D.C. saw a 50 to 80% reduction in the use of single-use plastic bags one month after the imposition of a five-cent charge (Ibid.). Additionally, since Los Angeles County implemented its ban on plastic bags in 2011, paired with a ten cent charge on paper bags, the result has been an overall 95% reduction of single-use plastic and paper bags, which includes eliminating plastic bags and a significant reduction of over 30% in of paper bag usage.<sup>7</sup>

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<sup>6</sup> Public Resources Code §42250(d).

<sup>7</sup> Los Angeles County Department of Public Works website. "About the Bag." Online at: <http://dpw.lacounty.gov.epd/aboutthebag/>.

Based on these findings, both the County of Santa Cruz and the City of Santa Cruz estimated that with the ban on carryout plastic bags and a \$0.10 charge on carryout paper bags, 65% of people would use reusable bags or no bag, and 35% of people would use paper bags (Ibid.). It is assumed that the bag usage estimated by the County and City of Santa Cruz would, at a minimum, be similar to expected use in the City of Capitola due to similar demographic characteristics. Furthermore, some studies have assumed that fewer paper bags would be required to replace plastic bags as paper bags typically hold more than plastic carryout bags. The ratio reviewed in the Boustead report<sup>8</sup> is 1,500 plastic bags to 1,000 paper bags. However, this Initial Study conservatively considered impacts on a one-to-one paper to plastic bag replacement basis as shown in Attachment C. It is also noted that both plastic and paper bags are often double-bagged and/or only contain a couple of items.

The amount of the paper bag charge will be determined by the Capitola City Council at the time it considers the ordinance for adoption. Most of the regulations reviewed in the County of Santa Cruz Initial Study and the Bag Master Environmental Assessment (MEA) showed that charges ranged from at least 10 cents to about 20 cents per bag, although Washington D.C. enacted a five cent charge as indicated above. A recent review by Californians Against Waste found that 46 cities and counties in the state had enacted a 10-cent charge per bag, while one county (Marin) enacted a minimum five cent charge and six cities enacted no charge. Some of the cities that enacted no charge also required that a paper bag be 100% recyclable with at least a 40% post-consumer recycled content.<sup>9</sup>

3. Level of Reusable Bag Use. As previously indicated, reusable bags can be made from plastic or cloth and are designed to be used up to hundreds of times, whereas single-use plastic shopping bags are not designed to be used multiple times. This Initial Study assumes that reusable bag use in Capitola will be similar to the Santa Cruz County and City of Santa Cruz assumptions that a reusable bag would be used at least twice per week (104 times per year) prior to recycling or disposal. Furthermore, the definition of reusable bag in the City's proposed ordinance includes a provision that the bags be able to be reused a minimum of 125 times based on findings reported in the Los Angeles County EIR as summarized below, which is also included in the definition in the State's pending AB298. Based on this anticipated level of reuse, the number of replacement reusable bags expected under Capitola's proposed ordinance would be approximately 117,650. It is also noted that some shoppers will reuse paper bags a number of times, but this analysis conservatively assumes a one-to-one replacement ratio for the 35% shift from plastic to paper bags.

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<sup>8</sup> The Boustead life cycle an assessment, prepared in 2007, compares plastic and paper bag impacts. The report is used and cited in this Initial Study (SOURCE V.2). It is also often cited in other environmental analyses regarding plastic and paper bags, including the MEA.

<sup>9</sup> Californians Against Waste website. 2012. "Plastic Bags: Local Ordinances." Available online at: [http://www.cawrecycles.org/issues/plastic\\_campaign/plastic\\_bags/local](http://www.cawrecycles.org/issues/plastic_campaign/plastic_bags/local). According to its website, Californians Against Waste is recognized as one of the nation's leading non-profit environmental research and advocacy organizations focusing on resource conservation and pollution prevention through waste reduction and recycling.

The above assumptions are consistent with the findings of a number of studies that have reviewed the amount of times a reusable bag may be used. The Hyder Study (SOURCE V.10) evaluated the life cycle impacts of several different types of bags and found that a polypropylene reusable bag that is used 104 times results in significantly lower overall environmental impacts than the impacts resulting from paper and plastic carryout bags as reported in the LA County EIR (SOURCE V.12). The LA County EIR also cited reports by Green Seal<sup>10</sup>, which estimate the life of a reusable bag as being between two and five years and recommends an industry standard of a minimum of 500 uses under wet conditions, an increase from its previous recommendation of a minimum of 300 uses.

Santa Cruz County's findings are based on review of existing studies that support the conclusion that reusable bags are used multiple times: a report prepared for Los Angeles County that assumes a lifetime of two years for reusable bags; an Australian report that assumes two years for reusable bags and three years for a plastic polypropylene "smart box" (Environment Australia, 2002); the Canada EcoLogo CCD-100 Reusable Bag Standard issued in 1996 requires 300 uses; and government procurement programs in Seattle cited a useful life of three to five years. Based on these studies and other parts of the world, reusable bags have an assumed lifespan of at least two years and potentially up to five years.

A 2011 British study (SOURCE V.9) that assesses the life cycle environmental impacts of the production, use and disposal of different carrier bags for the UK found that paper, non-woven polypropylene (PP) and cotton bags would need to be reused at least four, 14 and 173 times respectively to ensure that they have lower global warming potential than conventional HDPE carrier bags. These findings are consistent with those in the studies cited above and support the assumptions in the City's Initial Study.

4. Overview of Environmental Effects of Different Bag Types. The MEA, which as previously indicated is "incorporated by reference" in this Initial Study, includes review of existing studies and research related to the environmental impacts of different types of grocery shopping bags, including single-use bags (paper and plastic) as well as reusable bags. To the extent that reliable information regarding different types of plastic, paper, and reusable materials was available in the literature, they were included in the MEA, and the MEA provides a full explanation and disclosure of these studies. The studies provide life"-cycle assessments" (LCAs) that evaluate the environmental effects associated with a product by identifying and quantifying energy and material usage and environmental impacts of the entire life cycle of the product, encompassing extracting and processing raw materials; manufacturing, transportation, and distribution; use/reuse/maintenance; recycling; and final disposal (SOURCE V.11).

As previously indicated on page 5, the proposed ordinance finds that compostable carryout bags are not exempted as their production consumes nearly as much fossil

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<sup>10</sup> As reported in the LA County EIR, Green Seal is an independent non-profit organization that uses science-based standards and the power of the marketplace to provide recommendations regarding sustainable products, standards, and practices.

fuel as non-compostable bags and compostable bags do not solve the problems of wildlife damage, litter, or resource use addressed by the proposed ordinance. Section 8.07.020(2) of the proposed ordinance also indicates that “plastic bags include both compostable and non-compostable carry out bags,” and thus, are also banned. Thus, compostable bags are not considered further in the Initial Study environmental analyses.

The County of Santa Cruz Initial Study (SOURCE V.8) also provides an extensive overview of the life-cycle assessment of single-use plastic and paper bags, and as previously indicated is also incorporated by reference. Both documents provide further details regarding these conclusions that are summarized below and further discussed in subsequent sections of this Initial Study. Table 1 at the end of this section summarizes the comparative differences in impact between various bags as presented in the MEA, and an overview is provided below. Further details are provided in the specific topical discussions in section VI.

*Plastic Bags.* Conventional single-use plastic bags are a product of the petrochemical industry and are manufactured from plastic resin pellets derived from crude oil or natural gas (SOURCE V.11). The plastic resin pellets are a concern when released into the environment (Ibid.). As reported by the California State Water Resources Control Board, the pellets are a problematic type of litter due to small size and persistence as they slowly photodegrade over time. Once in the environment, preproduction plastic resin pellets, powders, and production scrap can be mistaken for food by marine life and pose a significant threat to California’s marine environment (Ibid.). None of the LCAs reviewed in the MEA quantitatively analyzed the effects of improper release of resin pellets into the environment (Ibid.).

Once manufactured, plastic bags are packaged and shipped to distributors who sell them to grocery and other stores throughout the state (SOURCE V.11). Customers may reuse the bags, but eventually the bags will be disposed in the landfill or recycling facility or discarded as litter. As indicated in Capitola’s proposed ordinance, improperly prepared plastic bags create equipment problems at the Material Recovery Facility. Loose bags wrap around the bearings and shafts of the material separator. The equipment must be stopped and the bags removed before they cause permanent damage. This results in slower production times for the sorting crew, as well as increased processing and repair costs. Additionally, plastic bags can end up as litter even those in the landfill may be blown away as litter due to their light weight. Although some recycling facilities will handle plastic bags, most reject them because they can get caught in the machinery and cause malfunctioning, or are contaminated after use (Ibid.). For those bags that end up at a landfill, most plastic carryout bags do not biodegrade, but instead persist in the environment for hundreds of years, slowly breaking down into toxic plastic bits that can contaminate soil and water and harm wildlife, according to the findings of AB2449.

Impacts resulting from single-use plastic bags include increased litter and dispersal into marine and aquatic environments that can cause water quality contamination and impacts to sensitive habitats and species. Both the MEA and County Single-Use Bag Ordinance Initial Study (including Response to Comments) provide further discussion and details on the range and magnitude of these impacts, and are

incorporated by reference as indicated on page 10 of this Initial Study. When compared to 30% recycled fiber paper bags, polyethylene plastic grocery bags use less energy in terms of fuels for manufacturing and less potable water (SOURCE V.2). In addition, polyethylene plastic grocery bags emit fewer air and greenhouse gas emissions and generate less solid waste (Ibid.). The same trend exists when comparing the typical polyethylene grocery bag to grocery bags made with compostable plastic resins (Ibid.).

*Paper Bags.* Single-use paper grocery bags are typically produced from kraft paper, which is manufactured from a pulp that is processed with some use of chemicals (SOURCE V.11). Because they are significantly heavier than plastic bags, paper bags are less likely to be blown off landfills as litter (Ibid.). Over its lifetime, a single-use paper bag has significantly greater greenhouse gas (GHG) emissions and results in greater air emissions and water consumption related to manufacturing than plastic bags (Ibid.). Single-use paper bags have lesser impacts related to aesthetics (litter) and marine biology than single-use plastic bags (Ibid.). The proposed ordinance finds that paper bags that contain a minimum of 40 percent post-consumer recycled content have fewer negative impacts on the environment than virgin paper bags.

*Biodegradable Bags.* Single-use biodegradable plastic bags are designed to degrade, and although they are thought to be an eco-friendly alternative to HDPE plastic bags, they have greater environmental impacts at manufacture, resulting in more GHG emissions and water consumption than conventional plastic bags (SOURCE V.11). In addition, biodegradable bags may degrade only under composting conditions. Biodegradable bags cannot be recycled with other plastic bags; if they enter the recycling material stream, they could contaminate the resulting recycled material, making it unusable (SOURCE V.8).

*Reusable Bags.* As defined in the MEA, reusable bags are made of various materials including polyethylene (PE) plastic, polypropylene (PP) plastic, multiple types of cloth (cotton canvas, nylon, etc.), and recycled plastic beverage containers (polyethylene terephthalate, or PET), among others (SOURCE V.11). As previously indicated, the state of California defines reusable bags as “a bag with handles that is specifically designed and manufactured for multiple reuse and is either made of cloth or other machine washable fabric, and/or thick, durable plastic (at least 2.25 mils thick).”

The production stages in reusable bag life cycles depend on the materials used. Due to their larger size and weight, they require more material consumption in manufacture on a bag-to-bag comparison than disposable bags (SOURCE V.11). However, these bags are intended for reuse up to hundreds of times and are commonly made of recycled content. It is believed that the frequent reuse outweighs greater per bag energy and material use (Ibid.). These bags are reused until worn out through washing or multiple uses, and then disposed either in the landfill or recycling facility. Due to their weight, they are less likely than plastic bags to blow off a landfill and become litter (SOURCE V.8).

No comprehensive California-specific life-cycle study has been conducted of the reusable bags commonly used in the state, however, previous LCAs not focused in California (James and Grant 2005 and Hyder Consulting 2007) suggest that the non-

woven plastic durable bag has the greatest environmental benefits overall, based on an analysis of multiple types of reusable bags (SOURCE V.11). Two often-cited studies include Ecoliban (2004) and Hyder (2007). According to the MEA summary, the 2004 Ecoliban study that was conducted in France, concluded that reusable polyethylene shopping bags are better than single-use plastic or paper bags, if used at least four times. The Hyder study includes a streamlined life cycle assessment and compares the environmental impacts of various shopping bag alternatives in Australia, including single-use plastic, paper and degradable bags, as well as reusable bags made of plastic and cloth. Indicators examined include: material consumption, GHG emissions, energy consumption, water use, litter marine biodiversity, and litter aesthetics. The report concludes that a substantial shift to more durable bags would deliver environmental gains through reductions in GHG emissions, energy and water use, resource depletion, and litter. The MEA reported that the Hyder study determined that although life cycle water use impacts would be greater for calico reusable bags than for other types of bags, the calico reusable bag outperforms carryout bags in all other environmental categories: material consumption, global warming, energy consumption, litter marine biodiversity, and litter aesthetics.

The summary of impacts table in the Hyder report was incorporated into the County of Santa Cruz Initial Study on its single-use bag regulations (page 26), and is often included in other studies and reviews, including the Los Angeles County EIR on its proposed ordinance to ban carryout plastic bags. The table from the County Initial Study is presented on Table 2.

The Hyder, Ecoliban and other studies that evaluated environmental impacts of different types of reusable bags also were reviewed as part of Los Angeles County's EIR (SOURCE V.12) on its ordinance to ban plastic carryout bags. As indicated in the LA County EIR, these studies evaluated reusable bags made from a variety of materials including low density polyethylene, woven high density polyethylene, cotton, and non-woven polypropylene and found that the overall conclusion of these studies<sup>11</sup> is that reusable bags can be expected to have fewer environmental impacts than plastic bags because they can be used multiple times. The EIR concluded that overall environmental impacts due to the life cycle of a reusable bag would be expected to be significantly lower than the overall environmental impacts of a plastic or paper carryout bag when considered on a per-use basis, and any conversion from the use of plastic carryout bags to reusable bags would be reasonably expected to result in an environmental benefit. As previously indicated, the Hyder Consulting study supports this finding and concludes that a reusable non-woven polypropylene bag that is used 104 times would result in reduced impacts, such as those related to greenhouse gas emissions, eutrophication, and water use.

*Conclusion.* The MEA found that the reviewed LCAs suggest that a switch to reusable bags would result in significant environmental benefits as compared to single-use plastic or paper bags. Paper bags, though less impacting to the environment in litter, aesthetics, and biological areas, are not a clear alternative to HDPE plastic bags, because air emissions, waste production, and water pollution associated with their

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<sup>11</sup> The cited studies include: Ecoliban, 2004; Nolan-Itu-Pty. Ltd, 2002; Marlet, 2004; ULS, 2007; ExcelPas Australia, 2004; Hyder Consulting, 2007; Herrera et al., 2008.

life cycles are equal to or greater than those for plastic bags. They found that even if biodegradable bags help with the litter situation, which is debatable, they would not significantly lower resource use, and cannot be recycled with single-use plastic bags (they contaminate the plastic). A shift from single-use disposable plastic bags to reusable bags would provide the best environmental gains over the full life cycle of the bags (SOURCE V.8).



**TABLE 1: Comparative Impacts of Grocery Bag Types**

[SOURCE: ICF International, March 2010]

**Master Environmental Assessment on Single-Use and Reusable Bags  
Executive Summary**

**Table 1: Comparative Impacts of Grocery Bag Types**

Environmental Issue <sup>(1)</sup>	Type of Bag			
	Single-use Plastic	Single-use Paper	Single-use Biodegradable	Reusable (any type)
Aesthetics (Primarily litter)	3	2	3	1
Agricultural Resources	Ins.	Ins.	Ins.	Ins.
Air Quality	2	3	3	1
- GHG Emissions	2	3	3	1
- Atmospheric Acidification and Criteria Pollutants	2	3	Ins.	1
- Ground-level Ozone	2	3	Ins.	1
Biological Resources (Primarily marine impacts)	3	2	3	1
Cultural Resources	Ins.	Ins.	Ins.	Ins.
Geology and Soils	Ins.	Ins.	Ins.	Ins.
Hazardous Materials	Sim.	Sim.	Sim.	Sim.
Hydrology and Water Quality	3	3 <sup>(2)</sup>	3	1
- Hydrology	3	2	2	1
- Water Consumption	2	3	3	1
- Water Quality	3	3	3	1
Land Use and Planning	Ins.	Ins.	Ins.	Ins.
Mineral Resources	2 <sup>(3)</sup>	3	3	1
Noise	Ins.	Ins.	Ins.	Ins.
Population and Housing	Ins.	Ins.	Ins.	Ins.
Public Services	3	2	3	1
Recreation	3 <sup>(4)</sup>	2	3 <sup>(5)</sup>	1
Transportation/ Traffic	Ins.	Ins.	Ins.	Ins.
Utility, Energy, and Service Systems	Ins.	Ins.	Ins.	Ins.
Solid Waste and Waste Reduction	3 <sup>(6)</sup>	3 <sup>(6)</sup>	3 <sup>(7)</sup>	1

**Table Notes:**

General: Relative effects are on a general scale of 1 to 3, with 1 representing lowest relative impact. "Ins." denotes insufficient information to make a judgment. "Sim." denotes similar levels of indirect impacts.

<sup>(1)</sup> Issues based on the CEQA Guidelines, Appendix G, with the addition of solid waste and waste reduction.

<sup>(2)</sup> Paper bags are less likely to contribute to trash/litter in surface waters, but require substantially more water for manufacturing than plastic bags.

<sup>(3)</sup> Plastic bags require less fossil fuel in their manufacture than other bags.

<sup>(4)</sup> Single-use plastic and biodegradable bags as litter can have a detrimental effect on the quality of recreational experience. Anecdotally, single-use paper bags are less common in litter.

<sup>(5)</sup> Single-use plastic bags occupy less space than other bags in landfills, but have a low rate of recycling.




<sup>(6)</sup> Single-use paper bags are commonly made of recycled material and have a much higher rate of recycling than single-use plastic bags.

<sup>(7)</sup> Single-use biodegradable bags can contaminate the plastic bag waste stream, complicating recycling efforts. They do not decompose readily in open environments; there are concerns that they are disposed of as litter rather than put into the trash bin.

**TABLE 2: Potential Impacts of Single-Use Shopping Bags**

[SOURCE: County of Santa Cruz, February 2011]

NOTE: A rating of one to five was used on the following to show the diversity of impacts for each criteria, with one being the lowest impact.

FROM COUNTY OF SANTA CRUZ INTIAL STUDY (Table 2)							
Environmental Impacts of Single-use HDPE Shopping Bags and Potential Alternatives Considering their Life Cycle							
Bag Type	Material Consumption (lbs)	Global Warming (lbs CO <sub>2</sub> eq)	Energy Consumption (MW)	Water Use (gal. H <sub>2</sub> O)	Litter Marine Biodiversity (lbs/y)	Litter Aesthetics (ft <sup>2</sup> /y)	Disposal Options
Reusable Non-woven Plastic (Polypropylene) 	↔	↔	↔	↔	↔	↔	Curbside and Major Supermarket Recycling
Reusable Cloth Bag (Typically Cotton or Canvas)	↔	↔	↔	↔↔↔↔↔	↔	↔	No Recycling, Dispose to Landfill
Single-use Plastic (HDPE) Bag <sup>1</sup> 	↔↔↔↔	↔↔	↔↔↔↔	↔	↔↔↔↔↔	↔↔↔↔↔	Curbside and Major Supermarket Recycling <sup>1</sup>
Single-use Compostable Mater-Bi Plastic Bag	↔↔↔↔↔	↔	↔	↔↔↔↔↔	↔	↔	Compost (degrades within six months under ideal conditions)
Single-use Kraft Paper Bag with 100% Recycled Content	↔↔↔↔↔	↔↔↔↔↔	↔↔↔↔	↔	↔	↔↔	Curbside Recycling
Single-use Kraft Paper Bag (100% Virgin Content)	↔↔↔↔↔	↔↔↔↔↔	↔↔↔↔↔	↔↔	↔	↔↔	Curbside Recycling
Single-use 'boutique' Plastic (LDPE) Bag 	↔↔↔↔↔	↔↔↔↔↔	↔↔↔↔↔	↔	↔↔↔↔↔	↔↔↔↔↔	Curbside Recycling

A rating of one to five was used to show the diversity of impacts for each criteria, with one being the lowest impact.

Notes: (1) Roughly 5% of plastic bags in California and nationwide are currently recycled (U.S. EPA 2005).

- **Material consumption:** Material used in the manufacture of the bag (i.e. mass of the bag multiplied by the number consumed over one year).
- **Global warming:** Climate change effects resulting from the emission of CO<sub>2</sub>, methane or other greenhouse gases into the atmosphere. Greenhouse impacts are dominated by carbon dioxide through electricity and fuels consumption, methane emissions through degradation of materials in anaerobic conditions (e.g. landfill), and nitrous oxide (N<sub>2</sub>O) emissions in fertilizer applications on crops.
- **Energy consumption:** Total energy use including fossil fuel, renewable, electrical and feedstock (i.e. the energy embodied in a bag's material).
- **Water use:** Net water use including potable, process, cooling water. Water quality, water depletion, and biodiversity.
- **Litter marine biodiversity:** This indicator estimates the time that litter in marine environments has the potential for ingestion or entanglement by marine fauna. This indicator is mostly affected by the propensity of the material to float or sink.
- **Litter aesthetics:** This indicator attempts to represent the visual impact of litter, related to the areas of the material and the time before it would degrade. To model this indicator an estimate of the average time a piece of litter may remain in the litter stream was needed. The data used for different materials was as follows:
  - o Plastics (both single use and reusable, but not degradable polymers) – five years
  - o Paper and degradable polymers – six months
  - o Cloth – two years.

Source: Hyder 2007 and County of Santa Cruz 2010.

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>1. AESTHETICS. Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				✓
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓
<b>2. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</b>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (V.4)				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				✓

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute to an existing or projected air quality violation?			✓	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				✓
d) Expose sensitive receptors to substantial pollutant concentrations?				✓
e) Create objectionable odors affecting a substantial number of people?				✓
<b>4. BIOLOGICAL RESOURCES. Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓
<b>5. CULTURAL RESOURCES. Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5?				✓
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?				✓
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓
d) Disturb any human remains, including those interred outside of formal cemeteries?				✓
<b>6. GEOLOGY AND SOILS. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</b>				
a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?				✓
b) Strong seismic ground shaking?				
c) Seismic-related ground failure, including liquefaction?				✓
d) Landslides?				✓
e) Would the project result in substantial soil erosion or the loss of topsoil?				✓
f) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				✓
g) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or				✓

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
property?				
h) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.				✓
<b>7. GREENHOUSE GAS EMISSIONS. Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				✓
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓
<b>8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				✓
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				✓
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?				✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized				

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
areas or where residences are intermixed with wildlands?				✓
<b>9. HYDROLOGY AND WATER QUALITY. Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?				✓
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (for example, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.				✓
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.				✓
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				✓
f) Otherwise substantially degrade water quality?			✓	
g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (V.1a)				✓
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows? (V.1a)				✓
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (V.1)				✓
j) Inundation by seiche, tsunami, or mudflow? (V.1a)				✓

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>10. LAND USE AND PLANNING. Would the project:</b>				
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?				✓
<b>11. MINERAL RESOURCES. Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (V.1a)				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? (V.1a)				✓
<b>12. NOISE. Would the project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?				✓
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?				✓
c) Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓



<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓
<b>13. POPULATION AND HOUSING. Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓
<b>14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:</b>				
a) Fire protection?				✓
b) Police protection?				✓
c) Schools?				✓
d) Parks?				✓
e) Other public facilities?				✓
<b>15. RECREATION. Would the project:</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>16. TRANSPORTATION/TRAFFIC. Would the project:</b>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			✓	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?				✓
e) Result in inadequate emergency access?				✓
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (for example, bus turnouts, bicycle racks.)				✓
<b>17. UTILITIES AND SERVICE SYSTEMS. Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				✓
<b>18. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:</b>				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				✓
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)				✓
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			✓	

**IV. DETERMINATION:**

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	✓
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a potentially significant or a potentially significant unless mitigated impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

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Lisa Murphy, Administrative Services Director

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Date

## V. SOURCE LIST

1. City of Capitola:
  - “Imagine Capitola” – City of Capitola General Plan Update.
    - a) “General Plan Update Existing Conditions White Paper #1. March 2011. Prepared by Design, Community & Environment for the City of Capitola.
    - b) “White Paper #4 – Environmental Resources & Hazards”. April 2011. Prepared by RBF Consulting.
    - c) “White Paper #5 – Public Services and Utilities & Infrastructure”. April 2011. Prepared by RBF Consulting.
  - Existing General Plan:
    - d) Adopted September 28, 1989. *General Plan City of Capitola*. Prepared by Freitas + Freitas.
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    - City of Capitola: Lisa Murphy, Administrative Services Director

- City of Santa Cruz Public Works Department: Bob Nelson
- Save Our Shores, Lauren Dockendorf

## VI. EXPLANATION OF ENVIRONMENTAL CHECKLIST RESPONSES

### 1. Aesthetics.

(a-b) Scenic Views and Resources. The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags that must have a 40% post-consumer recycled content. The regulations would not result in new structural development. Thus, the project would not result in adverse physical impacts to scenic views or scenic resources.

The proposed ordinance could increase single-use paper bags, although the proposed charge would serve as an incentive to reuse paper bags or use reusable bags. When improperly disposed of (i.e., not recycled or sent to a landfill), grocery bags contribute to the visual effects of litter, particularly HDPE plastic bags that are likely to end up as litter due to their light weight and easy dispersal under windy conditions (SOURCE V.11). Generally, plastic bags account for 73% of the bag litter, while paper accounts for the remaining 27% (Ibid.). Compared to plastic bags, paper bags pose less of a litter risk because of their biodegradability, weight, and recyclability (Ibid.). The shift from plastic to reusable and paper bags (with recycled content) could result in a reduction of litter as paper bags are reused and recycled more than plastic bags, and paper bags decompose in the environment at a much higher rate than plastic bags (SOURCE V.8). As indicated in subsection II.D above, Save Our Shores has found that since the implementation of local bag reduction ordinances, the average number of plastic bags collected per cleanup has decreased from approximately 40 to 10 bags per cleanup (Dockendorf, personal communication, September 2012).

(c-d) Compatibility with Surrounding Area and Introduction of Light and Glare. As indicated above, the proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development. Thus, the project would not result in adverse physical impacts that would degrade the visual quality of an area or result in introduction of new sources of substantial light or glare.

## 2. Agricultural and Forest Resources.

(a-b, e) Agricultural Lands. Capitola is designated "Urban and Built-Up" by the California Department of Conservation Farmland Mapping and Monitoring Program (SOURCE V.3). Additionally, the proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development and no land use changes are proposed. Thus, the project would not result in loss or conversion of agricultural lands or indirect impacts to agricultural operations as no land use changes or development is proposed and no agricultural lands exist within or adjacent to the City.

The MEA indicated that the LCAs that were reviewed as part of the MEA do not thoroughly address the potential impacts of various grocery bags on agricultural resources (SOURCE V.11). There has been the suggestion that plastic bags in litter can jam farm machinery, but there is no evidence that this is a common problem (Ibid.).

(c-e) Forest Lands. According to the City's General Plan and Zoning maps, there are no designated forest resources or lands zoned Timberland Preserve. As indicated above, the proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags that must have a 40% post-consumer recycled content. The regulations would not result in new structural development or land use changes; therefore, the proposed project would not result in a loss or conversion of forest lands. Similarly, the proposed regulation of single-use bags would not result in physical land use changes that would lead to the conversion of forest lands within the city of Capitola or conflict with timber production zoning. Thus, the project would not result in loss or conversion of forest lands as no land use changes or development is proposed.

## 3. Air Quality.

(a) Consistency with Air Quality Management Plan. The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development or increased population. Thus, the proposed project would not conflict with or obstruct implementation of the Plan.

(b, d) Project Emissions. The North Central Coast Air Basin (NCCAB), in which the project site is located, is under the jurisdiction of the Monterey Bay Air Pollution Control District (MBUAPCD) and includes Santa Cruz, Monterey and San Benito Counties. The NCCAB is currently in attainment for the federal PM<sub>10</sub> (particulate less



than 10 microns in diameter) standards and state and federal nitrogen dioxide, sulfur dioxide, and carbon monoxide standards. The basin is considered attainment or unclassified for other national standards and non-attainment for the one-hour State ozone standard and for the State PM<sub>10</sub> standard.

*Impact Analysis.* The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags that must have 40% post-consumer recycled content. The regulations would not result in new structural development that would generate traffic or result in stationary emissions. Thus, the project would not result in direct air emissions, violations of or contributions to violations of air quality standards for ozone and particulate matter (PM<sub>10</sub>), or exposure of sensitive receptors to substantial air pollutants within the North Coast Central Air Basin.

The proposed ban on plastic bags would result in an estimated annual increase of approximately 6,590,000 paper bags within the City, as well as an increase in an estimated 117,650 reusable bags compared with a decrease of approximately 18,825,000 plastic bags. (See Section III.C - "Impact Analysis Assumptions" for an explanation of underlying assumptions.) A switch to reusable bags is predicted to result in decreased transportation-related emissions due to less bag manufacturing and collection at disposal. However, because HDPE plastic bags have a significantly lower volume than paper or reusable bags, the increased use of paper bags would result in a potential increase in daily trips. Any increase is thought to be insignificant, on the order of one additional truck trip per day per small city (SOURCE V.11). Based on the above bag use estimates with passage of the proposed ordinance, and accounting for weight differences between the two types of bags, approximately 10 additional shipping trips could be generated within the City throughout the year as a result of the proposed regulations and increased use of recycled paper bags throughout the year. This is substantially below one trip per day deemed to be less-than-significant in the MEA finding reported above.<sup>13</sup> This minimal increase in daily traffic would not result in a substantial level of daily emissions or contribution to existing air quality violations related to ozone and particulate matter in the North Central Coast Basin. (See Attachment C for further details on assumptions and comparison of impacts.)

Overall, bag manufacture, transport, and disposal all result in air emissions. Paper bag manufacturing has a significantly larger impact on air quality than single-use plastic bags. Ozone precursors and particulate matter are emitted into the atmosphere when fuel is burned during the manufacture of plastic and paper bags. Atmospheric emissions for plastic bags have been estimated as about 63-73% less than for paper bags at zero percent recycling (SOURCE V.11). Even assuming 0% plastic bag recycling and 100% paper recycling and a ratio of two

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<sup>13</sup> Based on the expected weight of 15 pounds per 1,000 plastic bags and 140 pounds per 1,000 paper bags as reported by International Plastics and shipment in a delivery truck with a 1,550 cubic foot capacity. See Attachment C.

plastic bags per paper bag, atmospheric emissions per 10,000 bags are 10.84 kg for plastic bags compared to 14.61 kg for paper bags (Ibid.). A paper bag has 1.3 times the impact of HDPE plastic bags on ground level ozone formation (Ibid.).

The proposed ordinance would result in an estimated increase in single-use paper bag use as indicated above, which could result in incremental increases in air emissions associated with their production and processing. These impacts would be at unknown locations outside both the city of Capitola and county of Santa Cruz. However, a decrease in the emissions associated with plastic bag manufacture (also at unknown locations outside the city and county of Santa Cruz) would occur simultaneously as approximately the use of plastic bags would be eliminated annually with adoption and implementation of the proposed ordinance. Since paper bags will be required to have at least 40% recycled content under the proposed ordinance, the resulting emissions may not increase substantially because manufacture of paper bags using recycled content results in less pollutant emissions than manufacture using virgin material (SOURCE V.6a).

Based on the emissions assumptions from the Boustead LCA (SOURCE V.2), which evaluated 30% recycled content paper bags and recyclable plastic bags, and the above estimated bag use, the proposed ordinance project would result in an annual net decrease in the emissions of carbon monoxide in communities manufacturing single-use recyclable paper and plastic carryout bags, compared to existing conditions. This is due to the fact that the estimated annual increase in paper bag use is approximately one-third the amount of the estimated annual plastic bag use that will be eliminated. Thus, the implementation of the proposed ordinance would not indirectly result in manufacturing-related increased air emissions. (See Attachment C for further details on assumptions and comparison of impacts.)

(c) Cumulative Pollutant Increases. According to the MBUAPCD CEQA Guidelines, projects that are consistent with the "Air Quality Management Plan" (AQMP) would not result in cumulative impacts as regional emissions have been factored into the Plan. The MBUAPCD prepares air quality plans, which address attainment of the state and federal emission standards. These plans accommodate growth by projecting growth in emissions based on different indicators. For example, population forecasts adopted by AMBAG are used to forecast population-related emissions. These forecasts are then accommodated within the AQMP. As indicated above, the proposed project will not result in new population growth, and thus would not conflict with the adopted Air Quality Management Plan for the region.

(e) Odors. Adoption and implementation of the proposed ordinance to regulate carryout bags would not result in structural development or generation of odors.

#### 4. Biological Resources.

a-d) Sensitive Habitats, Special Status Species and Wildlife Movement & Nesting. The City of Capitola is largely developed, but supports riparian and aquatic habitat areas along Soquel Creek, Rodeo Gulch, Noble Gulch and Tannery Gulch. Soquel Creek runs through the middle of the City into the Monterey Bay, and is a year-round water source for the wildlife in the adjoining riparian corridor as well as an important wetland habitat. The lagoon area of the creek is a significant habitat for migratory non-marine waterbirds within the Capitola city limits. In addition, the creek supports steelhead, which enter the lagoon and pass through the lower section of the creek each year (SOURCE V.1d).

The City of Capitola is situated along the Monterey Bay, which is a designated national marine sanctuary under federal law. The Monterey Bay National Marine Sanctuary stretches from Cambria to the south to Marin County on the north, encompassing 276 miles of shoreline. It extends seaward an average of 30 miles from shore—covering more than 5,000 square miles of ocean. The Sanctuary, which is administered by the National Oceanic and Atmospheric Administration (NOAA), was established to promote resource protection, research, education, and public use. It boasts one of the most diverse marine ecosystems in the world, including the nation's largest kelp forest and one of North America's largest underwater canyons (SOURCE V.7).

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags, which must have a 40% post-consumer recycled content. The regulations would not result in new structural development. Thus, the project would not result in direct adverse physical impacts to special status species, sensitive habitats, or wildlife breeding or movement.

Plastic grocery bags enter the biological environment primarily as litter and can adversely affect terrestrial animal species, birds, and marine species that ingest the plastic bags (or the residue of plastic bags) or become tangled in the bag (SOURCE v.8). Over 260 species of wildlife, including invertebrates, turtles, fish, seabirds and mammals, have been reported to ingest or become entangled in plastic debris (Ibid.). Both the MEA and County Initial Study, which are incorporated by reference (see page 10 of this Initial Study), provide extensive discussion on impacts to wildlife due to ingestion and/or entanglement of plastic bags, debris and pellets. Implementation of the proposed ordinance would serve to reduce plastic bag use that would similarly contribute to reduction of plastic bag litter within the City of Santa Cruz and potential resultant impacts to wildlife, particularly marine wildlife within the Monterey Bay National Marine Sanctuary.

Paper grocery bags are also released into the environment as litter. They generally have less impact on wildlife because they are not as resistant to breakdown as is plastic, therefore running less risk of entanglement, and while probably not as healthy a food source as natural foods, if ingested they can be chewed effectively

and may be digested by many animals (SOURCE V.11). However, the MEA indicated that literature on the biological effects of paper grocery bag litter is practically non-existent (Ibid.).

Although no reviewed studies comprehensively reviewed the impacts of reusable bags on biological resources, it is believed that these bags will not have a significant impact on marine life. Due to the weight and sturdiness of these bags made for multiple uses, reusable bags are unlikely to be littered or carried from landfills by the wind as litter. Therefore, they are less likely to enter the oceans as waste. However, additional research is needed to identify other potential biological resource hazards associated with various types of reusable bags (SOURCE V.11).

Less directly, as with plastic bags, the manufacture of paper bags can result in adverse effects on wildlife (SOURCE V.11). The increased use of paper bags once plastic carryout bags are discontinued, could result in adverse effects to biological resources related to potential indirect increased timber harvesting and paper manufacturing. Due to both logging activities and potential resulting erosion, timber harvesting can lead to land degradation and biological diversity impacts, and paper production has adverse environmental impacts to air and water bodies due to a number of pollutants released during the manufacturing process (SOURCE V.6a). However, the proposed use of carryout paper bags with a 40% recycled content would reduce potential timber harvesting (Ibid.). The exact effects of paper manufacturing cannot be quantified, but analyses conducted by the City of San José indicate that improvements have been made in recent years in response to environmental concerns and regulations (Ibid.). The life cycle analyses financed by the plastic industry usually identify significant impacts from the loss of substantial quantities of trees, and from the air and water pollution produced by paper manufacturing, while the paper industry representatives point out that a substantial percentage of the trees used in paper making are grown for that purpose, that paper is widely recycled, and that most of the water used in paper manufacturing at the present time is captured, cleaned and returned, and not allowed to pollute the environment (Ibid.). While the loss of any trees would reduce forested habitat, commercially grown trees are unlikely to provide habitat for special status or listed species (Ibid.). Thus, the increased use of recycled paper bags as result of implementation of the proposed ordinance would not be expected to result in significant indirect impacts to forest habitats and wildlife species due to potential increased logging.

e-f) Conflict with Local Plans. The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development or land use changes. The project would not conflict with local policies or ordinances protecting biological resources or other habitat plans as there are no approved Habitat Conservation or Natural Community Conservation Plans in effect within the City.

## 5. Cultural Resources.

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development or land use changes. Thus, the project would not result in adverse physical impacts to cultural resources that could result due to excavation, grading and/or development.

## 6. Geology and Soils.

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development. Thus, the project would not result in adverse physical impacts to exposure to seismic or geologic risks or soils constraints. Adoption and implementation of the proposed ordinance would not result in development or land use changes that could result in erosion.

## 7. Greenhouse Gas Emissions.

(a) Greenhouse Gas Emissions. Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of greenhouse gas (GHG) emissions in the atmosphere. Greenhouse gases trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities (SOURCE V.14b).

Reports released by the State of California indicate that climate change could have profound impacts on California's water and natural resources, public health, infrastructure and economy. Natural processes and human activities such as fossil fuel combustion, deforestation and other changes in land use are resulting in the accumulation of greenhouse gases (GHGs) such as carbon dioxide (CO<sub>2</sub>) into the atmosphere.

The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide (SOURCE V.14b). The primary contributors to GHG emissions in California (as of 2008) are transportation (about 37%), electric power production (24%), industry (20%), agriculture and forestry (6%), and other sources, including commercial and residential uses (13%) (SOURCE V.14c). Approximately 81

percent of California's emissions are carbon dioxide produced from fossil fuel combustion (SOURCE V.14d).

The State of California passed the Global Warming Solutions Act of 2006 (AB32), which seeks to reduce GHG emissions generated by California. The Governor's Executive Order S-3-05 and AB 32 (Health & Safety Code, § 38501 et seq.) both seek to achieve 1990 emissions levels by the year 2020. Executive Order S-3-05 further requires that California's GHG emissions be 80 percent below 1990 levels by the year 2050. AB 32 defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrocarbons, perfluorocarbons and sulfur hexafluoride.

The California Air Resources Board (CARB) is the lead agency for implementing AB32. In accordance with provisions of AB 32, CARB has completed a statewide Greenhouse Gas (GHG) Inventory that provides estimates of the amount of GHGs emitted to, and removed from, the atmosphere by human activities within California. Based on review of this inventory, in December 2007 CARB approved a 2020 emissions limit of 427 CO<sub>2</sub> equivalent million metric tons (MMT CO<sub>2</sub>e)<sup>14</sup>, which is equivalent to the 1990 emissions level (SOURCE V.14c). In accordance with requirements of AB32, a Scoping Plan was released in October 2008 and adopted by CARB in December 2008. The Scoping Plan identifies 18 emissions reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related greenhouse gas targets, vehicle efficiency measures, goods movement, solar roofs program, industrial emissions, high speed rail, green building strategy, recycling, sustainable forests, water and air (SOURCE V.14b).

*Impact Analysis.* The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development that would result in GHG emissions. As discussed in Section III.C above, the proposed ban on plastic bags would result in an estimated annual increase in paper bag use (with 40% recycled content) by approximately 6,950,000 bags within the City, as well as an increase in an estimated 117,650 reusable bags compared with a decrease of approximately 18,825,000 plastic bags. A switch to reusable bags is predicted to result in decreased transportation-related emissions due to less bag manufacturing and collection at disposal. However, because HDPE plastic bags have a significantly lower volume than paper or reusable bags, a switch from plastic to paper may result in short-term increase in transportation. As indicated above in subsection 3(b,d), the potential trip increase would be minor at approximately 10 new trips per year, which would not be considered significant or result in substantial emissions.

Most LCAs try to account for greenhouse gas emissions that result from all stages of product life, from product creation to disposal, but do not have

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<sup>14</sup> The CO<sub>2</sub> equivalent emissions are commonly expressed as "million metric tons of carbon dioxide equivalent (MMT CO<sub>2</sub>E)". The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated Global Warming Potential (GWP).

consistent methodologies, and frequently use assumptions that differ from each other (SOURCE V.6a). For example, one assumption is that some percentage of single-use bags in the waste stream would be incinerated in a waste-to-energy system, i.e. the Boustead LCA. However, refuse from the City of Capitola is disposed at the Marina Landfill, operated by the Monterey Regional Waste Management District, which does not incinerate its waste. The MEA found that overall, paper bag production, use, and disposal results in 3.3 times the GHG emissions associated with HDPE single-use plastic bags; a reusable bag used three times will have fewer GHG emissions per use than a plastic bag (SOURCE V.11). LCAs reviewed as part of the MEA found that GHG emissions for all bag types are dominated by carbon dioxide through electricity and transport consumption, by methane through the degradation of materials in anaerobic conditions, and nitrous oxide emissions in fertilizer applications on crops (ExcelPlas study cited in SOURCE V.11). Further, the Boustead Consulting Study (2007) compared kraft paper with 30% content, HDPE recyclable plastic bag, and compostable plastic bags, and found that from all operations to just prior to disposal, the carbon dioxide equivalents are more than 20% greater for the paper bag compared to the recyclable plastic bag (SOURCE V.2). From all operations just prior to disposal, the resulting carbon dioxide equivalents for the degradable plastic bag are the highest about four times greater than the recyclable plastic bag (Ibid.).

The proposed ban on plastic bags would result in an estimated annual increase in paper bag use by approximately 6,590,000 bags within the City, as well as an increase in an estimated 117,650 reusable bags compared with a decrease of approximately 18,825,000 plastic bags. (See Section III - "Impact Analysis Assumptions" for an explanation of underlying assumptions.) An increase in single-use paper bag use could result in incremental increases in GHG emissions associated with their production and processing, which would be at unknown locations outside the city and county of Santa Cruz. However, a decrease in the emissions associated with plastic bag manufacture (also at unknown locations outside the city and county of Santa Cruz) would occur simultaneously as plastic bags would be eliminated annually with adoption and implementation of the proposed ordinance.

Based on the GHG emissions assumptions from the Boustead LCA for all processes to just prior to disposal (SOURCE V.2-Table 27A), overall GHG emissions (carbon dioxide equivalent) would decrease with implementation of the proposed ordinance by approximately 200 metric tons. (See Attachment C for further details on assumptions and comparison of impacts.) This is due to the overall decrease in single-use plastic bags with an increase in paper bags (with recycled content) about one-third the amount of the eliminated plastic bags as the majority of eliminated plastic bags are expected to be replaced with reusable bags based on experience in other areas with similar ordinances. Thus, the implementation of the proposed ordinance would not indirectly result in manufacturing and processing-related increased GHG emissions.

The bags evaluated in the Boustead LCA were the large recyclable plastic bags and large Kraft paper bags with a 30% recycled content. It is not possible to predict how many of which size paper bags might be purchased in the future, but the above estimate accounts for a 1:1 ratio instead of a 1.5:1 ratio that is factored into some studies based on typical sizing differences between paper and plastic bag. Additionally, heavier single-use plastic bags made of LDPE, which are often used by clothing and boutique stores, were found by some studies to result in greater greenhouse gas emissions than both single-use paper bags and single-use plastic bags made of HDPE, which are most typically used by grocery stores and large format retail stores (SOURCE V.8).

The Boustead LCA did not evaluate reusable bags, however studies reviewed in the MEA and Santa Cruz County Initial Study indicate that studies have shown less greenhouse gas emissions associated with reusable bags than either paper or plastic bags (see Table 2 in Section III above). The City of San Jose also found that reusable bags will generate less greenhouse gases per use than either paper or plastic single-use carryout bags (SOURCE V.6a). The City's proposal to encourage reusable bags instead of single-use bags would result in fewer greenhouse gas impacts than allowing continued reliance on single-use bags.

With regards to disposal, the increase in paper bags are expected to result in a recycling rate of approximately 50% based on existing recycling rate trends described in subsection II.A above. The remainder would be deposited at the regional landfill in the City of Marina and could contribute to methane production. When organic matter such as food, yard waste, and paper products decompose without oxygen, methane is produced, which is a greenhouse gas that is 21 times more effective at trapping heat in the atmosphere than carbon dioxide (SOURCE V.7). However, the Marina Landfill has a methane gas capture system that prevents methane gas from entering the atmosphere. Once the gas is captured, it is burned to generate electrical energy to power all landfill operations and deliver energy to PG&E (SOURCE V.15). This generation of electricity has the dual benefit of reducing the emissions of greenhouse gases by capturing methane (approximately 9,000 tons per year) and generating approximately 4,400 kilowatts of energy (Ibid.).

While the proposed regulations could result in an increase in paper bags, the amount expected to be disposed at the landfill would not be expected to generate significant methane emissions, and would be captured. The Boustead LCA assumed that 65% of paper bags would be disposed at landfills and would contribute to generation of methane. However, the City expects a much lower rate based on current recycling trends. Any methane generated by the paper bag increase resulting from the proposed ordinance would be expected to be offset by the overall decrease in GHG emissions from the overall manufacturing processing as described as above, as well as captured at the regional landfill in Marina and converted to energy. The U.S. EPA's waste and recycling model includes 75% methane capture for a landfill that has methane recovery system.



## 8. Hazards.

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development. Thus, the project would not result in adverse physical impacts to use of or exposure to hazardous materials or wastes.

The MEA found that the LCA literature does not discuss the impacts of various bags as hazardous materials. However, some of the raw materials used in the process of manufacturing bags are hazardous materials, and the process of manufacturing bags can involve hazardous materials (SOURCE V.11). The use and disposal of hazardous materials and wastes are regulated by federal, state and local governments, and adoption and implementation of the proposed ordinance would not be expected to indirectly lead to significant impacts related to use and disposal of hazardous materials and wastes that may result due to bag manufacturing.

The Save Plastic Bag Coalition has presented comments on other agency's ordinances and environmental analyses that state that many reusable bags are imported from China, which may contain lead, mercury, cadmium and other heavy metals. The presence of lead and heavy metals in reusable bags is not an environmental issue area for which CEQA requires analysis. This is an issue for the California Department of Toxic Substances Control and the Food and Drug Administration rather than the City. It is noted that California's Health and Safety Code sections 25214.11-25214.26 regulate toxic materials in packaging, but reusable bags as defined by state law are exempt. The County of Santa Cruz also reported in its Initial Study Responses to Comments that a National Public Radio (NPR) report in 2010 indicated that the federal Food and Drug Administration "doesn't view the reusable grocery bags as a safety hazard," and most food is wrapped in other packaging before it's bagged. However, the City's proposed ordinance's definition of reusable bags includes provisions that a reusable does not contain lead, cadmium, or any other heavy metal in toxic amounts.

## 9. Hydrology.

(b-e, g-i) Groundwater, Drainage, Flood Hazards. The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags, which must have a 40% post-consumer recycled content. The regulations would not result in new structural development or increased runoff and would not result in adverse physical impacts related groundwater use or recharge, alteration of drainage patterns, increased runoff, or exposure to flood or tsunami hazards.

(a, f) Water Quality. As indicated above, implementation of the proposed ordinance to regulate carryout bags would not result in new structural development or increased runoff that could lead to potential water quality degradation into drainages and/or municipal storm drain systems. The release of bags into the environment (i.e., litter) can adversely affect water quality; both plastic and paper bags can become litter that enters surface waters. As indicated in subsection 4(a-d) above, the release of bags may contaminate the water (in the sense of contributing to trash) creating negative health impacts for freshwater and marine organisms. However, as discussed, paper bags are recycled at a higher rate than plastic bags and pose less concerns for water quality degradation than plastic bags.

*Impact Analysis.* The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development that would result in GHG emissions. According to studies reviewed in the MEA, paper bags have 12-14 times the impact of HDPE plastic bags on eutrophication (e.g., nitrate and phosphate emissions into water that stimulate excessive growth of algae and other aquatic life) as a result of their manufacturing process (SOURCE V.11). Implementation of the proposed regulations would result in an anticipated increase in Kraft paper bag use of approximately 6,590,00 bags annually, with a required 40% recycled content. Reviews conducted by the City of San Jose found that paper manufactured with recycled content does not require the same substantial quantities of water and does not generate the same quantities or types of pollution (SOURCE V.6a). The indirect incremental increase in water quality impacts, should they occur, would not be significant at a paper bag manufacturing plant that meets current national Clean Water Act standards for water discharged back into the environment. Therefore, implementation of the proposed ordinance would not result in significant adverse indirect impacts to water supply or water quality.

## 10. Land Use and Planning.

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags that must have a 40% post-consumer recycled content. The regulations would not result in new structural development or land use changes and would not physically divide an established community or conflict with plans, policies or regulations adopted for the purpose of avoiding an environmental effect. The proposed ordinance's intent to reduce single-use bags, which would be in support City General Plan and Local Coastal Program policies to protect resources, especially within Monterey Bay.

## 11. Mineral Resources.

(a-b) Loss of Mineral Resources. According to the City's General Plan and Zoning maps, there are no designated mineral resources or mineral extraction operations in the city. As indicated above, the proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags, which must have a 40% post-consumer recycled content. The regulations would not result in new structural development or land use changes; therefore, the proposed project would not result in a loss of known mineral resources within the City.

Fossil fuel use is significant in the production of bags (SOURCE v.11). Single-use plastic bags and single-reusable non-woven plastic polypropylene bags are produced through a by-product of gas or oil refining, whereas, kraft paper bags, cotton bags, and starch-based biodegradable bags are manufactured from renewable resources (Ibid.). Nonetheless, significant fossil fuel use is required for the manufacture of these types of bags. According to the Boustead study (2007), fossil fuel use in the production, use and disposal of 1000 paper bags composed of at least 30% recycled fiber is 23.2 kg, whereas it is 14.9 kg for 1500 PE plastic bags and 41.5 kg for 1500 compostable plastic bags. Overall net fossil fuel consumption related to manufacturing would decrease with the elimination of plastic bags and expected replacement with reusable bags (65%) and recycled paper bags (35%).

## 12. Noise.

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The regulations would not result in new structural development, and thus, would not result in adverse physical impacts related to exposure to or generation of substantial noise levels.

### **13. Population and Housing.**

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The adoption and implementation of these regulations would not result in new structural development or an increase in population. Thus, the project would not result in population or growth inducement and would not displace housing or residents.

### **14-15. Public Services & Recreation.**

The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use plastic and paper bags by banning single-use plastic bags and charging for single-use paper bags. The adoption and implementation of these regulations would not result in new structural development or an increase in population. Thus, the project would not result in increased demand for public services within the city of Capitola.

### **16. Transportation/Traffic.**

There are no applicable congestion management programs in the city or county, and Capitola is not located near an airport or air strip. The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and charging for single-use paper bags. The adoption and implementation of these regulations would not result in new structural development or affect transportation facilities or access.

(a) Traffic-Circulation. The proposed ban on plastic bags would result in an estimated annual increase use of approximately 6,950,000 paper bags and 117,650 reusable bags within the City compared with a decrease of approximately 18,825,000 plastic bags. A switch to reusable bags is predicted to result in decreased transportation-related emissions due to less bag manufacturing and collection at disposal. However, because HDPE plastic bags have a significantly lower volume than paper or reusable bags, a switch from plastic to paper may result in an increase in daily trips. As discussed in subsection 3(b,d) above, adoption and implementation of the proposed regulations could indirectly result in approximately 10 new trips per year additional annual shipping trips within the City, which would not result in a substantial level increased traffic that would affect operating levels of service for roads and intersections.

### **17. Utilities and Service Systems.**

(a-c, e) Wastewater Treatment and Storm Drainage Facilities. The proposed project consists of an ordinance to add a new section to the City's Municipal Code that would regulate single-use carryout bags by banning single-use plastic bags and

charging for single-use paper bags. The adoption and implementation of these regulations would not result in new structural development, wastewater generation or need for stormwater drainage improvements.

(b, d) Water Demand. Implementation of the proposed ordinance would not result in any potentially significant impacts related to increased water use within the city of Capitola. Implementation of the ordinance would result in the elimination of plastic carryout bags annually, to be replaced by the use of reusable bags and 40% recyclable Kraft paper bags. As opposed to single-use carryout bags, reusable bags are intended to be used multiple times over many months (or years). As these bags become soiled or dirty from multiple uses, it is expected that the user would hand wash or launder the bags. The hand washing of reusable bags or inclusion of reusable bags in routine laundering would not result in any substantial increase in the demand for potable water. Those who launder their bags would likely place the bags in laundry loads with other clothes and materials, resulting in no new significant water demand. The cleaning of reusable bags by hand usually entails the use of soap with a damp sponge, which requires no significant amounts of water (SOURCE V.8).

The increased use of recycled paper bags would indirectly result in increased water use at manufacturing sites located at unknown locations outside the city of Capitola. Bag manufacture uses substantial amounts of water (SOURCE V.11). The Ecobilan report (2004) indicates that water consumption over a paper bag's life cycle is 4 times that of an HDPE plastic bag, and a reusable LDPE plastic bag results in 2.6 times the consumption of water of an HDPE plastic bag when compared on a per bag basis (Ibid.). The Boustead Consulting Study (2007) compared paper (30% recycled content), HDPE plastic, and compostable plastic bags, assuming that one paper bag can carry the same quantity of groceries as 1.5 plastic bags. The study results indicate that water use for both paper and compostable plastic bags is more than 16 times the use for HDPE plastic bags. Based on the Boustead numbers, the proposed project would result in an increased water demand of approximately 6 million gallons per day at unknown locations where paper is produced. (See Attachment C for further details on assumptions and comparison of impacts.) Water used in manufacturing is an indirect effect that would not result in a direct impact within the City or region. It is not known where increased water demands would occur, and thus, it would be speculative to ascertain potential significance. It is likely that any increased use would occur at different processing sites within different locations so that no one location would be significantly impacted by potential increased paper manufacturing.

(f-g) Solid Waste Disposal. Since 2007, the City of Capitola has a franchise agreement with Green Waste Recovery (GWR) for the collection of refuse, recycling, and yard waste. Solid waste collected in Capitola is transferred to the Monterey Peninsula Class III Landfill located in the City of Marina, which is operated by the Monterey Regional Waste Management District. It is a regional disposal facility that serves an 853-square mile area with a population of approximately 170,000. This facility covers 475 acres, which includes the permitted landfill site and disposal

areas. Waste types accepted and permitted at this facility include: agricultural, construction/demolition, sludge (biosolids), and mixed municipal. The landfill has a remaining waste capacity of approximately 40 million tons (74 million cubic yards) and has an anticipated life capacity of 100 years (SOURCE V1.c).

The California Integrated Waste Management Act of 1989 (AB 939) (Chapter 1095, Statutes of 1989, et seq.) was adopted in an effort to improve planning for solid waste facilities and reduce the volume and toxicity of solid waste that is disposed. The act requires each of the cities and unincorporated portions of counties throughout the State of California to divert 25% by 1995 and 50% by the year 2000 of the solid waste tonnage that was disposed in 1990. According to City staff, Capitola is currently recycling 67% of its refuse from the landfill, which exceeds the State of California mandate that the City achieve a diversion rate of 50%.

*Impact Analysis.* The proposed ordinance would result in an estimated increased use of recycled paper bags. Solid waste production from bag manufacture and disposal is generally considered higher for paper bags than for plastic bags. One study (Ecobilan, 2004) indicates that solid waste production is 2.7 times greater by weight for paper bags than for HDPE plastic bags (SOURCE V.8). The Boustead Consulting study (2007) suggests that the production of municipal solid waste associated with paper bags is almost 5 times that, by weight, of HDPE plastic bags. Using numbers in the Boustead study (which estimated about 65% paper bags going to the landfill and 80% plastic bags would go to the landfill) and the expected increase in paper bags, overall solid waste generation would increase. However, given an estimated 50% recycling rate for paper bags and 12% recycling rate for plastic bags as described in subsection II.A above, overall solid waste generation would increase slightly by approximately 37 tons per year with adoption and implementation of the proposed regulations. . (See Attachment C for further details on assumptions and comparison of impacts.) However, adequate capacity exists at the regional landfill where Capitola's waste is disposed, and the additional waste generation would not result in a significant impact on the landfill's 100±-year capacity.

Reusable bags are not recyclable and would be disposed after their useful life. However, as discussed in Section III.D above, current standards and studies suggest that this would be over a period of years. As indicated in the LA County EIR, reusable bags are heavier and take up more volume than plastic carryout bags. The manufacturing process of reusable bags would also be expected to generate solid waste. However, due to the fact that reusable bags are designed to be used multiple times, a conversion from plastic carryout bags to reusable bags would decrease the total number of bags that are disposed of in landfills, resulting in a decrease in solid waste disposal. The LA County EIR cites the Ecobilan Study, which evaluated the solid waste impacts of a LDPE reusable bag and concluded that this particular reusable bag has a smaller impact on solid waste than a plastic carryout bag, as long as the reusable bag is used a minimum of three times. The impacts of the reusable bag are reduced further when the bag is used additional times. The Hyder Study (SOURCE V.10), which was used as a reference throughout the LA County EIR, evaluated the life cycle

impacts of several different types of bags and concluded that polypropylene and calico reusable bags that are used 104 times by consumers require significantly less material consumption than paper and plastic carryout bags. The estimated use of reusable bags in the City of Capitola is consistent with this estimate. Therefore, impacts related to solid waste as a result of converting from plastic carryout bags to reusable bags in the City would be expected to be below the level of significance.

## 18. **Mandatory Findings of Significance.**

(a) Biological and Cultural Resource Impacts. The adoption and implementation of the proposed single-use carryout bag regulations would serve to reduce overall single-bag use and eliminate carryout plastic bags for retail purchases (except at restaurants). As discussed in subsections 4(a-d) and 5 above, the project would not result in direct impacts to biological or cultural resources. Indirect adverse impacts to marine habitats would be eliminated, and potential indirect impacts to forest habitats would not be considered significant because locations are unknown and are likely areas of grown for commercial timber production where typically no special status species exist. The project would not degrade the quality of the environmental or otherwise affect fish and wildlife habitat.

(b) Cumulative Impacts. There are no cumulative projects within the City that when combined with the proposed ordinance would result in significant cumulative impacts. It has been suggested that similarly-adopted ordinances throughout the state and nation could result in significant cumulative impacts as single-use paper bags have been found to have greater impacts during its entire life cycle than single-use plastic bags on a one-to-one ratio related to air and GHG emissions, potable water use, solid waste generation, and overall fossil fuel use. However, it is too speculative to try to estimate how and where such ordinances would be established and assess what level of cumulative impact may occur. For the City's ordinance, the analyses in this Initial Study have shown that most impact areas will result in a reduced overall net impact related to life cycles due to expected increased use of reusable bags and limited increased use of recycled paper bags. The analyses found that there were be no net increases in impacts related to air pollutant and greenhouse gas emissions due to the switch to paper bags, although local traffic and solid waste generation, as well as indirect water use during production outside of the City, would be higher (see summary in Attachment C of the Initial Study). The local impacts were not deemed to be significant because the increased traffic throughout the year due to increased paper bag deliveries would not result in significant traffic volumes during peak hours, and the landfill that serves the City has adequate capacity for increased disposal due to a shift in paper bags. Increased indirect water consumption during paper bag production would occur at unknown locations outside the City, it would be speculative to ascertain potential significance. It is likely that any increased water use would occur at different processing sites within different locations so that no one location would be significantly impacted by potential increased paper manufacturing. Therefore, the project's incremental contribution to

potential significant cumulative effects, if they were identified, would not be cumulatively considerable. Similarly, other similar ordinances are in areas that do not share the same physical environment as the City of Capitola, and the City would not contribute impacts to localized impacts in other jurisdictions.

The City acknowledges and hereby notes that other jurisdictions in California have adopted or proposed regulations governing single-use carryout bags, including bans on single-use carryout plastic bags, including but not limited to: 1) the cities of Calabasas, Long Beach, Los Angeles, Malibu, Manhattan Beach, Palo Alto, San Francisco, San Jose, and Santa Monica; and 2) the counties of Alameda, Los Angeles, Marin, San Luis Obispo, Santa Clara, and Santa Cruz. Other regional jurisdictions that have recently adopted ordinances include the cities of Carmel, Monterey, Santa Cruz and Watsonville. The Los Angeles County EIR also indicates that it would be speculative to attempt to quantify all potential related activities throughout California and beyond, and Section 15151 of the State CEQA Guidelines states, "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." Further, the discussion of cumulative impacts in an EIR "should be guided by the standards of practicability and reasonableness" [State CEQA Guidelines §15130(b)]. Ordinances outside of the City of Capitola would also be subject to different regulations and thresholds of significance.

Furthermore, the California Supreme Court in its opinion on the ruling in *Save The Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, noted that the plaintiff referred to the cumulative impacts the Manhattan Beach ordinance might have in conjunction with similar laws enacted or contemplated elsewhere, including bans in San Francisco and Santa Monica, and possible bans in Oakland, Los Angeles County, and even statewide. The Supreme Court noted that "Manhattan Beach is small enough that even the cumulative effects of its ordinance would be negligible." (Manhattan Beach has a population of approximately 37,000.) The Court also found that the only local impacts of the ban would be related to transportation of additional paper bags and paper bag disposal. In both cases, the City had sufficient evidence on the record to support its conclusion that these impacts would be less than significant. With respect to the global effects of paper bags, the Court held that although the area affected by a project may reach beyond the project boundaries, "[t]his does not mean, however, that an agency is required to conduct an exhaustive analysis of all conceivable impacts a project may have in areas outside its geographical boundaries... [l]ess detail, for example, would be required where those effects are more indirect than effects felt within the project area, or where it [would] be difficult to predict them with any accuracy." The Court also found that the impacts outside Manhattan Beach "are both indirect and difficult to predict," and "the actual increase in paper bag use as a result of the ordinance is necessarily uncertain, given that some percentage of local residents may be expected to turn to the city's favored alternative, reusable bags." The Court further stated that "the city could hardly be expected to trace the provenance of all paper bags that might be purchased by Manhattan Beach establishments, in order to evaluate the particular impacts resulting from their manufacture.



Given the above ruling and since the City of Capitola's population is much less than Manhattan Beach and no significant impacts were identified, a similar conclusion appears reasonable.

(c) Substantial Adverse Effects on Human Beings. No environmental effects have been identified that would have direct or indirect adverse effects on human beings. The issue of hygiene has been raised regarding reusable bags due to potential food contamination. Food residue on reusable bags may lead to the growth of mold or harbor bacteria, which in turn may come in contact with other foods. This concern is mostly associated with reusable plastic bags; reusable cloth bags – commonly used in California – are more durable and are routinely tossed into the laundry for cleaning (SOURCE V.11). This concern is not a CEQA-related issue as CEQA does not require evaluation of health impacts, and lack of care of a product is a behavioral concern not a physical impact on the environmental resulting either directly or indirectly from the proposed project. The LA County EIR noted that as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious risk to public health if consumers care for the bags appropriately and/or clean the bags regularly (SOURCE V.12). If reusable bags are made of cloth or fabric, they can be washed by machine. If reusable bags are made of durable plastic, they can be manually rinsed or wiped clean. Further, the LA County EIR notes that neither the City nor the County of San Francisco, since enacting a plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags. The City's proposed ordinance defines a "reusable bag" as any bag with handles that is specifically designed and manufactured for multiple reuse, and is either made of cloth or other washable fabric or material. These materials could either be laundered or durable enough to clean.

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**ORDINANCE NO. \_\_\_\_\_**  
**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CAPITOLA**  
**ENACTING A NEW CHAPTER 8.07 OF THE CAPITOLA MUNICIPAL CODE**  
**RELATED TO THE REDUCTION OF SINGLE-USE**  
**PLASTIC AND PAPER CARRYOUT BAGS**

BE IT HEREBY ORDAINED BY THE CITY COUNCIL OF THE CITY OF CAPITOLA AS FOLLOWS:

Section 1. Chapter 8.07 is hereby added to the Capitola Municipal Code to read as follows:

**“CHAPTER 8.07”**

**SINGLE-USE PLASTIC AND PAPER CARRYOUT BAG REDUCTION**

Sections:

- 8.07.010 Purpose and Findings
- 8.07.020 Definitions
- 8.07.030 Ban on Plastic Carryout Bags and Store Charge for Single-Use Paper Carryout Bags
- 8.07.040 Implementation
- 8.07.050 Exemptions Allowing Single Use Bags
- 8.07.060 Enforcement
- 8.07.070 Violations
- 8.07.080 Severability
- 8.07.090 Effective Date
- 8.07.100 No Conflict With Federal or State Law
- 8.07.110 Preemption

**8.07.010 Purpose and Findings.**

A. It is the intent of the City of Capitola, in enacting Chapter 8.07 to eliminate the common use of plastic single-use carryout bags, encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general.

B. Whereas the City of Capitola has an obligation to protect the environment, the economy, and public health. The City of Capitola has a 75 percent waste reduction goal, which is to be reached by waste reduction, reuse, recycling, and composting. The City of Capitola makes the following findings:

1. The Department of Resources Recycling and Recovery (CalRecycle) estimates that Californians use nearly 20 billion single-use plastic bags per year and discard over 100 hundred plastic bags per second. Further the Environmental Protection Agency estimates that only 5 percent of the plastic bags in California and nationwide are currently recycled.

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2. According to Save Our Shores, a Santa Cruz based marine conservation non-profit that conducts beach, river, and inland cleanups in the coastal regions of Santa Cruz, San Mateo, and Monterey Counties, from June 2007 to May 2011, over 400 cleanups were conducted where volunteers removed a total of 26,000 plastic bags. Unchecked, this material would have likely entered the marine environment of the Monterey Bay National Marine Sanctuary.

3. Plastic bags returned to supermarkets may be recycled into plastic lumber; however, a very low percentage of bags are actually returned. Recycling bags into lumber does not reduce the impact of making new plastic carryout bags. The CalRecycle 2009 Statewide Recycling Rate for Plastic Carryout Bags report indicates that of the 52,765 tons of regulated bags purchased statewide, only 1,520 tons were collected for recycling, a recycling rate of about 3%.

4. The City of Capitola currently has a plastic bag recycling component to the residential curbside recycling program.

5. Improperly prepared plastic bags create equipment problems at the Material Recovery Facility. Loose bags wrap around the bearings and shafts of the material separator. The equipment must be stopped and the bags removed before they cause permanent damage. This results in slower production times for the sorting crew, as well as increased processing and repair costs.

6. Compostable plastic carryout bags, as currently manufactured, do not solve the problems of wildlife damage, litter, or resource use addressed by this ordinance. Compostable carryout bags are designed to remain intact until placed in a professional compost facility, so they do not degrade quickly as litter or in a marine environment. Producing compostable bags consumes nearly as much fossil fuel as noncompostable bags. Mixing compostable bags with regular plastic bags prevents recycling or composting either of them. Therefore, there is no exemption in this ordinance for compostable carryout bags.

7. According to Californians Against Waste, Californians pay up to \$200 per household each year in State and Federal taxes to clean up litter and waste associated with single-use bags, on top of the \$40 per household per year in hidden grocery costs to offset the expense of the nearly 1,000 "free" bags received from grocers.

8. Reusable bags are readily available from numerous sources and vendors. Many grocery and other retail establishments throughout the City of Capitola already offer reusable bags for sale at a price as low as 1.00 dollar.

9. Even though paper bags are recycled at a much higher rate within the City of Capitola than plastic bags, the purpose of this ordinance is to reduce all single-use bags. For this reason, a charge on paper bags is indicated as an incentive to reduce their use and encourage reusable bags.

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10. Paper bags that contain a minimum of 40 percent post consumer recycled content have fewer negative impacts than virgin paper bags. Paper shopping bags with 40% post consumer recycled content are easily available, and such bags are in wide use by Capitola merchants.

11. State law currently prohibits local jurisdictions from placing fees on single-use checkout plastic bags. Therefore, several California Cities have adopted or are pursuing a ban as the most effective remaining means to eliminate the impacts these plastic bags cause. State law does not prohibit jurisdictions from placing fees on paper bags.

**8.07.020 Definitions.**

A. For the purposes of this Chapter, the following definitions apply:

1. "Carryout bags" means bags provided by retailers to customers at the point of sale to hold customers' purchases. "Carryout bags" do not include bags used to contain loose items prior to checkout, such as meat, produce, and bulk goods, and does not include prepackaged products.

2. "Single-use plastic bag" or "single-use plastic carryout bag" means a single-use carryout bag of any size that is made from plastic and provided at the point of sale to customers by a retail establishment. Single-use plastic bags include both compostable and non-compostable carryout bags.

3. "Single-use paper bag" means a checkout bag provided by a retail establishment at the point of sale that is made from paper and is not a reusable bag.

4. "Recyclable" means material that can be sorted, cleansed, and reconstituted using the City's available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating, converting, or otherwise destroying sold waste.

5. "Reusable bag" means any bag with handles that is specifically designed and manufactured for multiple reuse, and meets the following requirements: 1) is either made of cloth or other washable woven fabric, or made of durable material including plastic that is at least 2.25 mils thick; 2) has a minimum lifetime of 125 uses, which for purposes of this subsection, means the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet; 3) has a minimum volume of 15 liters; 4) is washable; and 5) does not contain lead, cadmium, or any other heavy metal in toxic amounts.

6. "Retail establishment" or "retail store" means all sales outlets, stores, shops, restaurants, vehicles, or other places of business located within the City of Capitola, which operate primarily to sell or convey goods, directly to the ultimate consumer.

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7. "Restaurants" means an establishment whose principal business is the sale of prepared food for consumption either on or off premises, are not covered under this ordinance.

8. "Exempted uses" means those point-of-purchase or delivery sales, which have received a special exemption through the City Manager or the Managers designee that allows the use of single-use bags.

**8.07.030 Ban on plastic bags and store charge for single-use paper carryout bags.**

A. No retail establishment shall provide plastic carryout bags to customers at the point of sale, except as permitted in this chapter.

B. No City of Capitola contractors, special events promoters, or their vendors, while performing under contract or permit shall provide plastic carry-out bags to customers at the point of sale.

C. Single-use paper carryout bags provided to customers shall contain a minimum of 40 percent post consumer recycled paper fiber, and be recyclable in the City of Capitola's curbside recycling program.

D. Retail establishments shall charge, during the first year of implementation of this ordinance, a charge that will be established by the City Council at the time of adoption of this ordinance, for each single-use paper carry out bag provided to customers at the point of sale. The City Council shall review the charge amount one year from the date of adoption to judge its effectiveness and at anytime thereafter as the City Council deems necessary.

E. The charge imposed pursuant to this section shall not be applied to customers participating in the California Special Supplemental Food Program for Women, Infants, and Children, the State Department of Social Services Food Stamp program, or other government subsidized purchase programs for low-income residents.

F. The ban on single-use plastic bags and the charge on single-use paper bags would not apply to plastic or paper bags used to protect produce, meat, or otherwise used to protect items as they are put into a carryout bag at checkout. Other examples include: paper bags to protect bottles, plastic bags around ice cream or other wet items, paper bags used to weigh candy, paper pharmacy bags or paper bags to protect greeting cards.

G. Retail establishments are strongly encouraged to make reusable bags available for sale to customers at a reasonable price.

H. Retail establishments shall indicate on the customer transaction receipt the number of carryout bags provided, and the total amount charged for those bags.

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**8.07.040 Implementation.**

A. Sixty days before this ordinance takes effect, the City of Capitola shall post, mail or deliver a copy of it to retail establishments within the city limits of the City of Capitola.

B. The City of Capitola will distribute to each store a reproducible placard designed to inform shoppers of the City of Capitola policy for carryout bags.

C. The City of Capitola Finance Department shall provide a copy of this ordinance to every new retail establishment that applies for a business license in the City of Capitola.

**8.07.050 Exemptions allowing single use bags.**

A. The City Manager, or the manager's designee, may exempt a retail establishment from the requirement set forth in Section 8.07.030 of this chapter for a one-year period upon the retail establishment showing, in writing, that this chapter would create an undue hardship or practical difficulty not generally applicable to other persons in similar circumstances. The decision to grant or deny an exemption shall be in writing, and the City Manager or the manager's designee's decision shall be final.

B. An exemption application shall include all information necessary for the City Manager or the manager's designee to make a decision, including but not limited to documentation showing factual support for the claimed exemption.

C. The City Manager or managers' designee may approve the exemption application in whole or in part, with or without conditions.

**8.07.060 Enforcement.** Enforcement of this ordinance shall be as follows:

A. The City Manager, or designee, shall have primary responsibility for enforcement of this ordinance and shall have authority to issue citations for violation of this chapter. The City Manager, or designee, is authorized to establish regulations or administrative procedures to ensure compliance with this chapter.

B. A person or entity violating or failing to comply with any of the requirements of this chapter shall be guilty of an infraction.

C. The City of Capitola may seek legal, injunctive, or any other relief to enforce the provisions of this chapter and any regulation or administrative procedure authorized by it.

D. The remedies and penalties provided in this chapter are cumulative and not exclusive of one another.

E. The City Manager or designee may inspect any retail establishment's premises to verify compliance with this ordinance.

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**8.07.070 Violations.** Violations of this ordinance shall be enforced as follows:

A. Violation of this chapter is hereby declared to be a public nuisance. Any violation described in the preceding paragraph shall be subject to abatement by the City of Capitola, as well as any other remedies that may be permitted by law for public nuisances, and may be enforced by injunction, upon a showing of violation.

B. Upon a first violation by a retail establishment, the City Manager, or designee, shall mail a written warning to the retail establishment. The warning shall recite the violation, and advise that future violations may result in fines.

C. Upon a second or subsequent violation by a retail establishment, the following penalties will apply:

1. A fine not exceeding one hundred dollars (\$100) for the first violation that occurs 30 days or more after the first warning.

2. A fine not exceeding two hundred dollars (\$200) for the second violation that occurs 60 days or more after the first warning.

3. A fine not exceeding five hundred dollars (\$500) for the third violation that occurs 90 days or more after the first warning.

4. A fine not exceeding five hundred dollars (\$500) for every 30 day period not in compliance, that occurs 90 days or more after the first warning.

D. Special events promoters and their vendors who violate this ordinance in connection with commercial or non-commercial special events shall be assessed fines as follows:

1. A fine not exceeding two hundred dollars (\$200) for an event of 1 to 200 persons.

2. A fine not exceeding four hundred dollars (\$400) for an event of 201 to 400 persons.

3. A fine not exceeding six hundred dollars (\$600) for an event of 401 to 600 persons.

4. A fine not exceeding one thousand dollars (\$1,000) for an event of 601 or more persons.

E. Remedies and fines under this section are cumulative.

**8.07.080 Severability.**

If any word, phrase, sentence, part, section, subsection, or other portion of this chapter, or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other

**ATTACHMENT A**  
**Draft Ordinance**

portion, or the proscribed application thereof, shall be severable, and the remaining provisions of this chapter, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect. The City of Capitola hereby declares that it would have passed this title, and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases had been declared invalid or unconstitutional.

**8.07.090 Effective date.**

This ordinance shall become effective three (3) months after the date of final passage by the City of Capitola City Council.

**8.07.100 No conflict with Federal or State law.**

Nothing in this ordinance shall be interpreted or applied so as to create any requirement, power, or duty in conflict with any Federal or State law.

**8.07.110 Preemption.**

The provisions of this chapter shall be null and void if State or Federal legislation, or administrative regulation, takes effect with the same or substantially similar provisions as contained in this chapter. The City Council shall determine whether or not identical or substantially similar statewide legislation has been enacted or regulations issued."

Section 3. This ordinance shall take effect and be in full force on \_\_\_\_\_, 2013.

This ordinance was introduced on the 14<sup>th</sup> day of December 2012, and was passed and adopted by the City Council of the City of Capitola on the \_\_\_ day of \_\_\_, 2012, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

DISQUALIFIED:

APPROVED:

\_\_\_\_\_  
Michael Termini, Mayor

ATTEST:

\_\_\_\_\_, CMC  
Susan Sneddon, City Clerk



**ATTACHMENT B**  
**Bag Use Estimates**

**City of Capitola Bag Use Estimates**

<b>Company Name</b>	<b>Business Type</b>	<b>Plastic Bag/Day</b>	<b>Paper Bag / Day</b>
BETSY'S SUMMER HOUSE	Antiques	100	
EVER AFTER ANTIQUES	Antiques	100	
THOMAS KINKADE CAPITOLA GALLERY	Art Gallery	50	
LINDA NADEAU, ARTIST	Artist	50	
SUBARU OF SANTA CRUZ dba SANTA CRUZ KIA	Auto Motor Vehicle	50	
SUBARU-MAZDA OF SANTA CRUZ	Auto Motor Vehicle	50	
TOYOTA OF SANTA CRUZ	Auto Motor Vehicle	50	
O'REILLY AUTO PARTS #2763	Auto Parts Store - Retail	500	
THE GOODYEAR TIRE & RUBBER CO #8724	Auto Parts Store - Retail	500	
BELLA DONNA	Beauty	25	
COSMO PROF #8819	Beauty	25	
DE MASQE, INC. dba DE MASQE	Beauty	25	
EN STYLE TOO	Beauty	25	
GLAMOROUS	Beauty	25	
OLYMPIA BEAUTY SUPPPPLY & SALON	Beauty	25	
RUMOURS SALON AND SPA	Beauty	25	
SHAPERS HAIR DESIGN	Beauty	25	
STYLES FOR LESS #230	Beauty	25	
WESTSIDE BEAUTY SUPPLY	Beauty	25	
FREE TO RIDE	Bicycle	100	
INKLINGS BOOKS & THINGS	Book Store	100	
CAPITOLA BOOK CAFE	Book Store		100
CAPITOLA BOOK COMPANY	Book Store	100	
41ST AVENUE WASH & DRY	Carwash/Gifts/Novelties - Retail	100	
BAY AVENUE CAR WASH	Carwash/Gifts/Novelties - Retail	100	
MASTER CARWASH	Carwash/Gifts/Novelties - Retail	100	
BEST CLEANERS	Cleaners		
CLASSIC CLEANERS	Cleaners		
KING'S CLEANERS	Cleaners		
AEROPOSTALE WEST #855	Clothing & Retail	300	
AMBIANCE	Clothing & Retail	200	
AVALON VISIONS	Clothing & Retail	100	
AVIJE FASHION GALLERY	Clothing & Retail	100	
BAY AREA CALENDAR CLUB	Clothing & Retail	100	
BED BATH & BEYOND #540	Clothing & Retail	1,000	
BIG KAHUNA HAWAIIAN SHIRTS INC.	Clothing & Retail	50	
BRIDAL VEIL FASHIONS	Clothing & Retail	100	
BUCK'S WORLDS	Clothing & Retail	50	
BUMBLEBEES BY THE SEA	Clothing & Retail	50	

**City of Capitola Bag Use Estimates**

<b>Company Name</b>	<b>Business Type</b>	<b>Plastic Bag/Day</b>	<b>Paper Bag / Day</b>
CAPITOLA BOARDROOM	Clothing & Retail	100	
CAPITOLA SEASHELLS	Clothing & Retail	50	
CAPITOLA SHADES	Clothing & Retail	50	
CAPITOLA TOYS & HOBBIES	Clothing & Retail	50	
CHARLEY & COMPANY	Clothing & Retail	50	
CHERRY BLOSSOM BABY	Clothing & Retail	50	
CHOICE CLOTHING COMPANY	Clothing & Retail	50	
CHRISTOPHER & BANKS INC.	Clothing & Retail		100
CLAIRE'S #3309	Clothing & Retail	100	
CLOTHES COTTAGE	Clothing & Retail	50	
COACH #1261	Clothing & Retail	100	
CRAFT GALLERY	Clothing & Retail		100
CRAFT GALLERY ANNEX	Clothing & Retail		100
CRUZ'N	Clothing & Retail	50	
CUSTOMIZED TSHIRTS	Clothing & Retail	50	
EXPRESS LLC #462	Clothing & Retail		200
FOOT LOCKER #8007	Clothing & Retail	200	
GAYLES COOL & COLLECTED	Clothing & Retail	-	10
GRATEFUL TIE DYES	Clothing & Retail	50	
GYMBOREE STORE #336	Clothing & Retail	200	
HOT TOPIC INC.	Clothing & Retail	200	
IN THE RAW	Clothing & Retail	50	
JUST BABY GIFTS & APPAREL	Clothing & Retail	50	
JUSTICE STORE #176	Clothing & Retail	200	
KICKBACK	Clothing & Retail	50	
KICKBACK ANNEX	Clothing & Retail	50	
KOHL'S DEPARTMENT STORES, INC. #1358	Clothing & Retail	2,000	
MACY'S	Clothing & Retail	2,000	
MARILEE WESTEN CLOTHING	Clothing & Retail	50	
MENS WEARHOUSE #2180	Clothing & Retail	100	
MOTHERHOOD MATERNITY #517	Clothing & Retail	200	
MRA SALES/CAPITOLA BEACH CO.	Clothing & Retail	50	
NUBIA SWIMWEAR	Clothing & Retail		50
OCEANIA IMPORTS INC	Clothing & Retail		50
OM FAIRTRADE	Clothing & Retail	50	
O'NEILL SURF SHOP	Clothing & Retail	200	
PACIFIC SUNWEAR #34	Clothing & Retail	200	
PACIFIC TRADING COMPANY	Clothing & Retail	100	
PRETTY MAMA, INC.	Clothing & Retail	100	

## City of Capitola Bag Use Estimates

Company Name	Business Type	Plastic Bag/Day	Paper Bag / Day
RED FLAG CLOTHING	Clothing & Retail	50	
REDBOX AUTOMATED RETAIL, LLC	Clothing & Retail	50	
ROSS DRESS FOR LESS #187	Clothing & Retail	1,000	
RUE 21 INC STORE #831	Clothing & Retail	200	
SANTA CRUZ APPAREL	Clothing & Retail	200	
SCRIPT CRAFT/CAPITOLA REEF	Clothing & Retail	50	
SEA LEVEL T SHIRT CO.	Clothing & Retail	50	
SEARS, ROEBUCK AND CO. #2308-6461	Clothing & Retail	2,000	
SUZI'S	Clothing & Retail	50	
SWEET ASYLUM	Clothing & Retail	50	
THE CHILDREN'S PLACE #1739	Clothing & Retail	200	
THE LIMITED #503	Clothing & Retail	200	
THE WARDROBE	Clothing & Retail	50	
VICTORIA'S SECRET #472	Clothing & Retail	100	100
WET SEAL #55	Clothing & Retail	200	
WFO APPAREL	Clothing & Retail	50	
YVONNE	Clothing & Retail	50	
ZUMIEZ INC #67	Clothing & Retail	200	
LA VITA COMPANY	Clothing & Retail	200	
MASS OF ONE	Clothing & Retail	100	
BLUE LAVA	Clothing & Retail	100	
CUTEGIRL.COM INC	Clothing & Retail	100	
EUPHORIA RIO MIX INC	Clothing & Retail	100	
GALLI UNIFORM COMPANY	Clothing & Retail	100	
CVS PHARMACY #9597	Drug Store	1,000	
LAUDEN PHARMACY	Drug Store	1,000	
RITE AID CORPORATION #5966	Drug Store	1,000	
CVS PHARMACY #9960	Drug Store	1,000	
FLOORS, ETC.	Flooring	20	
FIONNA FLORAL	Florist	20	
SON'S FLORAL	Florist	20	
HANNAH'S HOME FURNISHINGS	Furniture	100	
HAVANA VILLAGE	Furniture	100	
MATTRESS DISCOUNTERS	Furniture	100	
MANCINI'S SLEEPWORLD, INC.	Furniture	100	
SELECT COMFORT RETAIL CORP.	Furniture	100	
AJ's FUEL MARKET OF CAPITOLA	Gas Station	200	
CAPITOLA SHELL	Gas Station	200	
CAPITOLA UNION 76	Gas Station	200	

**City of Capitola Bag Use Estimates**

<b>Company Name</b>	<b>Business Type</b>	<b>Plastic Bag/Day</b>	<b>Paper Bag / Day</b>
CHEVRON STATIONS INC., #1707	Gas Station	200	-
CAPITOLA COAST	Gas Station	200	
DEAD SEA TREASURES	Gifts/Novelties/Greeting Cards	100	-
DOGMATIC	Gifts/Novelties/Greeting Cards	100	
GAIA EARTH TREASURES	Gifts/Novelties/Greeting Cards	100	
GEM & CO.	Gifts/Novelties/Greeting Cards	100	
GEM SHOW	Gifts/Novelties/Greeting Cards	100	
HOUR PLACE	Gifts/Novelties/Greeting Cards	100	
JONES & BONES UNLTD	Gifts/Novelties/Greeting Cards	100	
OBSIDIAN COLLECTIVE DBA ALCHEMOLOGY	Gifts/Novelties/Greeting Cards	100	
RAINBOW CITY LIMIT	Gifts/Novelties/Greeting Cards	100	
STEVE'S HALLMARK #7	Gifts/Novelties/Greeting Cards	100	
THREE LITTLE BIRDS	Gifts/Novelties/Greeting Cards	100	
VANITY BY THE SEA	Gifts/Novelties/Greeting Cards	100	
VILLAGE MOUSE	Gifts/Novelties/Greeting Cards	100	
WOODWORM PARTY STORE	Gifts/Novelties/Greeting Cards	100	
SNAPDRAGON	Gifts/Novelties/Greeting Cards	100	
FLY HIGH	Gifts/Novelties/Greeting Cards	100	
BEVERAGES & MORE INC. #118	Groceries	500	-
CAPITOLA VILLAGE PRODUCE	Groceries	500	-
LOTUS ASIAN MARKET	Groceries	500	-
NEW LEAF COMMUNITY MARKETS, INC.	Groceries	-	5,000
NOB HILL #615	Groceries	-	10,000
SAVEMART #702	Groceries	10,000	
TRADER JOES COMPANY #64	Groceries	-	5,000
WHOLE FOODS MARKET	Groceries	-	5,000
ORCHARD SUPPLY HARDWARE #0060	Hardware/Bldg Supply - Retail	1,000	
CSAA INTER-INSURANCE BUREAU	Insurance	25	
DON ROBERTO JEWELERS, INC	Jewelry		100
HONG & JIM INC dba FAST FIX JEWELRY & WATCH REPA	Jewelry		100
JAY LATTA	Jewelry		100
JS KEEPSAKE DIAMOND CENTER	Jewelry		100
KAY JEWELERS #565	Jewelry		100
PhDIAMONDS	Jewelry		100
VALLEY JEWELRY	Jewelry		100
GOLD EXCHANGE STORES	Jewelry		100
K LIQUORS INC	Liquor Store		100
VERUTTI LIQUORS	Liquor Store		100
FED EX OFFICE INC. #5138	Misc Business Services	100	

## City of Capitola Bag Use Estimates

Company Name	Business Type	Plastic Bag/Day	Paper Bag / Day
THE UPS STORE #285	Misc Business Services	100	
AS SEEN ON TV	Misc Retail Trade, Other	200	
BATH & BODY WORKS, #82	Misc Retail Trade, Other	1,000	
BEST BUY MOBILE #2917	Misc Retail Trade, Other	1,000	
CAPITOLA BOAT & BAIT	Misc Retail Trade, Other	25	
CAPITOLA MOORING & MARINE	Misc Retail Trade, Other	25	
GAMESTOP #1151	Misc Retail Trade, Other	100	
GAMESTOP #717	Misc Retail Trade, Other	100	
PIER 1 IMPORTS #1173	Misc Retail Trade, Other	100	
TARGET STORE T-2795	Misc Retail Trade, Other	5,000	
TEDDY BEAR WASH DRY	Misc Retail Trade, Other	100	
TOYSRUS	Misc Retail Trade, Other	100	
VITAMIN CENTER	Misc Retail Trade, Other	100	
PARADISE VALLEY SPAS	Misc. Retail Trade	50	
TANNERS COVE	Misc. Retail Trade	50	
UNITED RENTALS (NORTH AMERICA), INC.	Moving - Rental Vehicles and Supplie	50	
JUST SAXES	Musical Instruments	100	
VIKING GUITAR PRODUCTIONS	Musical Instruments	100	
CAPITOLA NURSERY	Nursery/Garden - Retail	100	
IKON OFFICE SOLUTIONS INC	Office Equip	100	
MONTEREY BAY OFFICE PRODUCTS	Office Equip	100	
PET EMPORIUM	Pet Shop - Retail	200	
BAY PHOTO INC.	Photo Lab/Equip	20	
MINUTE KEY, INC.	Photo Lab/Equip	20	
FASTFRAME #249	Picture Frames	100	
BECK'S SHOES INC	Shoe Store	50	
HOT FEET INC.	Shoe Store	50	
LADY FOOT LOCKER #6506	Shoe Store	50	
NEW FEET	Shoe Store	50	
PAYLESS SHOESOURCE #3629	Shoe Store	50	
SHIEKH SHOES	Shoe Store	50	
SLAP HAPPY	Shoe Store	50	
VANS INC #169	Shoe Store	50	
JOURNEYS #746	Shoe Store	50	
AMBIANCE GALLERY	Specialty Shop - Retail	100	
KALEIDOSCOPE	Specialty Shop - Retail	100	
KIDS TREASURES	Specialty Shop - Retail	100	
KITTY MC NEIL DESIGNS	Specialty Shop - Retail	100	
LENSCRAFTERS 5778	Specialty Shop - Retail	100	

**City of Capitola Bag Use Estimates**

<b>Company Name</b>	<b>Business Type</b>	<b>Plastic Bag/Day</b>	<b>Paper Bag / Day</b>
LIDS# 5659	Specialty Shop - Retail	100	
LOWELL & SALLY BOOKMAN	Specialty Shop - Retail	100	
LUMEN GALLERY	Specialty Shop - Retail		100
MANY HANDS GALLERY	Specialty Shop - Retail		100
MAX MUSCLE OF SANTA CRUZ	Specialty Shop - Retail	100	
NAZAR FINE TURKISH IMPORTS	Specialty Shop - Retail	100	
PACIFIC GALLERY	Specialty Shop - Retail	100	
PACIFIC OPTICAL, INC. dba SITE FOR SORE EYES	Specialty Shop - Retail	100	
PANACHE BATH & BODY SHOP	Specialty Shop - Retail		100
PARADISE BEADS	Specialty Shop - Retail	100	
PERFUME GALLERY	Specialty Shop - Retail	100	
PERFUMERS APPRENTICE	Specialty Shop - Retail	100	
PHOEBE'S	Specialty Shop - Retail	100	
PIERCING PAGODA #353	Specialty Shop - Retail	100	
QUILTING BY THE SEA	Specialty Shop - Retail	100	
RADIO SHACK #01-9013	Specialty Shop - Retail	100	
SEE'S CANDIES INC	Specialty Shop - Retail	100	
SEW INSPIRED	Specialty Shop - Retail	100	
SOURCE SURFBOARDS	Specialty Shop - Retail	100	
STERN TRAVEL SHOP	Specialty Shop - Retail	100	
SUNGLASS HUT TRADING, LLC #4651	Specialty Shop - Retail	100	
SUPER SILVER CAPITOLA	Specialty Shop - Retail	100	
SUPER SILVER SANTA CRUZ	Specialty Shop - Retail	100	
SURF N SHACK	Specialty Shop - Retail	100	
THE ANGLER'S CHOICE TACKLE SHOP	Specialty Shop - Retail	100	
THE CHOCOLATE BAR	Specialty Shop - Retail	100	
THE MAD MOLECULE SCIENCE STORE	Specialty Shop - Retail	100	
VILLAGE SEA GLASS	Specialty Shop - Retail	100	
JUDY'S SEWING CENTER	Specialty Shop - Retail	100	
CANNED CREATIONS	Specialty Shop - Retail	100	
CUSTOM ENGRAVING & STICKERS	Specialty Shop - Retail	100	
VERO IMPORTS INC	Specialty Shop - Retail	100	
BIG 5 SPORTING GOODS #181	Sporting Goods/Equip - Retail	200	
MAA MELDI INC'S DBA SPORTS EXTREME	Sporting Goods/Equip - Retail	100	
OUTDOOR WORLD	Sporting Goods/Equip - Retail	200	
HELM OF SUN VALLEY	Sporting Goods/Equip - Retail	100	
CHOSENGOODS	Sporting Goods/Equip - Retail	100	
PALACE ART AND OFFICE SUPPLY	Stationary & Supplies		200
COMPLETE CELLULAR, INC.	Telephone Equipment	50	

**City of Capitola Bag Use Estimates**

<b>Company Name</b>	<b>Business Type</b>	<b>Plastic Bag/Day</b>	<b>Paper Bag / Day</b>
AT&T MOBILITY	Telephone Equipment	200	
SPRINT-WIRELESS LIFESTYLE	Telephone Equipment	200	
VERIZON WIRELESS	Telephone Equipment	200	
WIRELESS, THAT'S IT LLC	Telephone Equipment	100	
WIRELESSCOMM, INC	Telephone Equipment	100	
DIAMOND WIRELESS	Telephone Equipment	100	
AT&T MOBILITY	Video Equip - Retail	100	
CAPITOLA VIDEO	Video Equip - Retail	100	
VIDEO BUTTONS	Video Equip - Retail	100	
ARMIDA WINERY INC	Winery	50	
PELICAN RANCH WINERY	Winery	50	
St. Josephs THRIFT STORE	NON PROFIT ORGANIZATIONS	100	
Goodwill	NON PROFIT ORGANIZATIONS	200	
<b>TOTAL Carryout Bags Per Day</b>		<b>51,575</b>	<b>27,310</b>



**ATTACHMENT C**  
Comparison of Impacts

**COMPARISON OF IMPACTS OF IMPLEMENTATION OF CITY OF CAPITOLA  
SINGLE-USE BAG REDUCTION ORDINANCE**

Existing Use Assumptions	Plastic	Paper
Existing Estimated Daily Use in City	51,575	27,310
Average Annual Use in City [Assumes daily use per year; numbers are rounded up]	18,825,000	9,970,000
Future Use Assumptions With Adoption & Implementation of Proposed Ordinance	Plastic	Paper at 1:1 Ratio
Estimated Annual Decrease in Plastic Bags	-18,825,000	
Estimated Annual Increase in Paper Bags to Replace Plastic Bags (rounded up)		6,590,000
[65% are estimated to be reusable bags to be used at least 104 times per year (117,650 bags) and 35% (6,748,39 bags) are estimated to be paper bags with recycled content]		
Potential Impacts	Plastic	Paper at 1:1 Ratio
Delivery Trips Per Year [1]	7	17
Air Quality Carbon Monoxide in Pounds/Year [2]	2,824	1,753
GHG Emissions Carbon Dioxide Equivalents-In Metric Tons [3]	361	156
Water Use-in millions of gallons [4]	0.75	6.62
Solid Waste Disposal [5] 33.9 kg (74.7pounds) per 1000 bags= 4.7 kg (10.4 pounds) per 1000 bags =	86 tons	123 tons

[1] Based on the expected weight of 15 pounds (979 cubic inches) per 1,000 plastic bags and 140 pounds (7,188 cubic inches) per 1,000 paper bags as reported by International Plastics, online at: <http://www.interplas.com/packaging-earth-friendly-recyclable-plastic-bags>, and shipment in a delivery truck with a 1,550 cubic foot capacity. Use of larger trucks would further reduce the number of trips.

[2] Based on factors in Boustead LCA: 121,000 mg CO per 1,000 paper bags and 67,400 mg per 1,000 plastic bags. Other indicators of emissions for criteria pollutants, such as Nox and Sox were not presented in common measures to provide a comparison.[Numbers are rounded up.]

[3] Based on factors in Boustead LCA: Carbon dioxide equivalent over 20 years of 23,710,00 mg per 1,000 paper bags and 19,200,000 mg per 1,000 plastic bags. [For all operations prior to disposal.]

[4] Based on factors in Boustead LCA related to manufacture: 1004 gallons per 1,000 paper bags & 40 gallons per 1,000 plastic bags.

[5] Assumes 50% of paper bags & 12% of plastic bags are recycled based on nation-wide data.



# County of Santa Cruz

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

### NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE IS HEREBY GIVEN that the County of Santa Cruz is proposing to adopt a Mitigated Negative Declaration in accordance with Section 15072 of the California Environmental Quality Act for the following project. The proposed Mitigated Negative Declaration can be reviewed on the Internet at <http://www.sccoplanning.com>, and at the County of Santa Cruz Planning Department Records Room, 701 Ocean Street, 4<sup>th</sup> Floor, Santa Cruz, California 95060 during normal business hours. Comments on the proposed Mitigated Negative Declaration must be sent to Todd Sexauer at the address listed above, and should reference "Single-use Bag Reduction Ordinance."

**Owner/Applicant:** County of Santa Cruz

**Application No.:** NA

**Zone District:** NA

**Staff Planner:** Todd Sexauer; (831) 454-3511

**Project Location:** The proposed project is located in the unincorporated County of Santa Cruz and is applicable to retail uses countywide. The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay.

**Project Description:** The project is a proposed ordinance that would ban the use of single use plastic carryout bags, require that all paper carryout bags have a minimum of 40% post consumer recycled content, and encourage the use of reusable carryout bags in the unincorporated areas of Santa Cruz County, thereby reducing the number of bags manufactured, and the number that are released to the natural environment or disposed of in landfills. Chapter 5.48 of the County Code would prohibit retail product stores from making plastic carryout bags available at checkout stands, and would require them to charge \$0.10 on each paper carryout bag at the point of sale for a period of one year from the date Chapter 5.48 of the County Code takes effect. The charge would be increased to \$0.25 on each paper carryout bag beyond the initial one-year period. The Board of Supervisors may periodically review the store charge to judge its effectiveness. The ordinance would become effective six (6) months after the date of final passage by the County of Santa Cruz Board of Supervisors.

**Public Review Period and Comment:** Written comments on the proposed Mitigated Negative Declaration must be received no later than March 16, 2011 at 5:00 p.m. (a 30-day public review period beginning on February 15, 2011). For additional information, please contact Matt Johnston, Environmental Coordinator at (831) 454-3201 or by e-mail at [pln458@co-santa-cruz.ca.us](mailto:pln458@co-santa-cruz.ca.us). The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Romero at (831) 454-3137 (TDD number (831) 454-2123 or (831) 763-8123 to make arrangements.

**Public Hearing:** The project will be considered at a public hearing by the Board of Supervisors. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
 KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR  
<http://www.sccoplanning.com/>

### DRAFT MITIGATED NEGATIVE DECLARATION

**Project:** Single Use Bag Reduction Ordinance

**APN(S):** Countywide

**Project Description:** The project is a proposed ordinance that would ban the use of single use plastic carryout bags, require that all paper carryout bags have a minimum of 40% post consumer recycled content, and encourage the use of reusable carryout bags in the unincorporated areas of Santa Cruz County, thereby reducing the number of bags manufactured, and the number that are released to the natural environment or disposed of in landfills. Chapter 5.48 of the County Code would prohibit retail product stores from making plastic carryout bags available at checkout stands, and would require them to charge \$0.10 on each paper carryout bag at the point of sale for a period of one year from the date Chapter 5.48 of the County Code takes effect. The charge would be increased to \$0.25 on each paper carryout bag beyond the initial one-year period. The Board of Supervisors may periodically review the store charge to judge its effectiveness. The ordinance would become effective six (6) months after the date of final passage by the County of Santa Cruz Board of Supervisors.

**Project Location:** The proposed ordinance would apply countywide.

**Applicant:** County of Santa Cruz

**Staff Planner:** Todd Sexauer; email: [pln459@co.santa-cruz.ca.us](mailto:pln459@co.santa-cruz.ca.us)

**This project will be** considered at a public hearing by the Board of Supervisors. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

#### California Environmental Quality Act Mitigated Negative Declaration Findings:

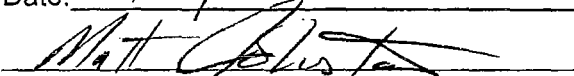
Find, that this Mitigated Negative Declaration reflects the decision-making body's independent judgment and analysis, and; that the decision-making body has reviewed and considered the information contained in this Mitigated Negative Declaration and the comments received during the public review period; and that revisions in the project plans or proposals made by or agreed to by the project applicant would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and, on the basis of the whole record before the decision-making body (including this Mitigated Negative Declaration) that there is no substantial evidence that the project as revised will have a significant effect on the environment. The expected environmental impacts of the project are documented in the attached Initial Study on file with the County of Santa Cruz Planning Department located at 701 Ocean Street, 4<sup>th</sup> Floor, Santa Cruz, California.

#### Required Mitigation Measures or Conditions:

- None  
 Are Attached

Review Period Ends: March 16, 2011

*Note: This Document is Considered Draft  
until it is Adopted by the Appropriate County  
of Santa Cruz Decision-Making Body*

Date: 2/10/2011  
  
 MATT JOHNSTON, Environmental Coordinator  
 (831) 454-3201

## Single Use Bag Ordinance

### NEGATIVE DECLARATION MITIGATIONS

- A. To ensure a reduction in greenhouse gasses is the result following adoption and implementation of the ordinance, it is vital that reusable carryout bags are made available and used at County of Santa Cruz retailers. To ensure this reduction, the following mitigation shall be implemented: The County will work with retailers and members of the community to increase the availability and use of reusable carryout bags. The County is currently a member of the Central Coast Recycling Media Coalition (CCRMC), which coordinates education and outreach for numerous cities and counties in the Monterey Bay Area. The County of Santa Cruz Department of Public Works will continue to contribute a minimum of \$10,000 per year to CCRMC in support of ongoing programs promoting the use of reusable shopping bags.



# County of Santa Cruz

## PLANNING DEPARTMENT

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 KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR  
 www.sccoplanning.com

## CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ENVIRONMENTAL REVIEW INITIAL STUDY

Date: February 7, 2011

Application Number: N/A

Staff Planner: Todd Sexauer

### I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: County of Santa Cruz

APN(s): Countywide

OWNER: N/A

SUPERVISORAL DISTRICT: All

#### PROJECT LOCATION:

The proposed project is located in the unincorporated County of Santa Cruz and is applicable to retail uses countywide. The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay.

#### SUMMARY PROJECT DESCRIPTION:

The project is a proposed ordinance that would ban the use of single use plastic carryout bags, require that all paper carryout bags have a minimum of 40% post consumer recycled content, and encourage the use of reusable carryout bags in the unincorporated areas of Santa Cruz County, thereby reducing the number of bags manufactured, and the number that are released to the natural environment or disposed of in landfills. Plastic bags refer to single-use bags of any size that are both compostable and non-compostable plastic bags.

Chapter 5.48 of the County Code would prohibit retail product stores from making plastic bags available at checkout stands, and would require them to charge \$0.10 on each paper carryout bag at the point of sale for a period of one year from the date Chapter 5.48 of the County Code takes effect. The charge would be increased to \$0.25 on each paper carryout bag beyond the initial one-year period. The Board of Supervisors may periodically review the store charge to judge its effectiveness.

The ordinance would become effective six (6) months after the date of final passage by the County of Santa Cruz Board of Supervisors. Sixty days before the ordinance would take effect; the County of Santa Cruz would mail or deliver a copy of Chapter 5.48 of the County Code to every retail establishment within the unincorporated County of Santa Cruz. The County would also distribute a reproducible placard to each store that is designed to inform shoppers of the County of Santa Cruz policy for carryout bags.

This ordinance applies to carryout bags provided at the checkout counter. It does not apply to bags used within the store to contain loose items prior to checkout such as meat, produce, bulk goods, or pre-packaged products. Purchases made under the State Department of Social Services Food Stamp program, California Special Supplemental Food Program for Women, Infants, and Children (WIC), and other such government-subsidized purchase programs for low-income residents would be exempt from the store charge on paper carryout bags.

This ordinance establishes a ban rather than a store charge on plastic carryout bags, because current California state law prohibits local jurisdictions from charging for plastic bags (AB 2449 2006). State law does not prohibit jurisdictions from charging for paper bags. The draft ordinance language is provided in its entirety as Attachment 1.

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.

- |   |  |
|---|--|
| <input type="checkbox"/> Geology/Soils                        | <input type="checkbox"/> Noise                               |
| <input type="checkbox"/> Hydrology/Water Supply/Water Quality | <input type="checkbox"/> Air Quality                         |
| <input type="checkbox"/> Biological Resources                 | <input checked="" type="checkbox"/> Greenhouse Gas Emissions |
| <input type="checkbox"/> Agriculture and Forestry Resources   | <input type="checkbox"/> Public Services                     |
| <input type="checkbox"/> Mineral Resources                    | <input type="checkbox"/> Recreation                          |
| <input type="checkbox"/> Visual Resources & Aesthetics        | <input type="checkbox"/> Utilities & Service Systems         |
| <input type="checkbox"/> Cultural Resources                   | <input type="checkbox"/> Land Use and Planning               |
| <input type="checkbox"/> Hazards & Hazardous Materials        | <input type="checkbox"/> Population and Housing              |
| <input type="checkbox"/> Transportation/Traffic               | <input type="checkbox"/> Mandatory Findings of Significance  |

**DISCRETIONARY APPROVAL(S) BEING CONSIDERED:**

- |   |   |
|---|---|
| <input type="checkbox"/> General Plan Amendment | <input type="checkbox"/> Coastal Development Permit           |
| <input type="checkbox"/> Land Division          | <input type="checkbox"/> Grading Permit                       |
| <input type="checkbox"/> Rezoning               | <input type="checkbox"/> Riparian Exception                   |
| <input type="checkbox"/> Development Permit     | <input checked="" type="checkbox"/> Other: Proposed Ordinance |

**NON-LOCAL APPROVALS**

Other agencies that must issue permits or authorizations:

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**DETERMINATION:** (To be completed by the lead agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Matthew Johnston  
Environmental Coordinator

\_\_\_\_\_  
Date

**II. BACKGROUND INFORMATION**

**EXISTING SITE CONDITIONS**

Parcel Size: N/A

Existing Land Use: Countywide

Vegetation: N/A

Slope in area affected by project:  0 - 30%  31 – 100%  N/A

Nearby Watercourse: Countywide

Distance To: N/A

**ENVIRONMENTAL RESOURCES AND CONSTRAINTS**

Water Supply Watershed: N/A

Groundwater Recharge: N/A

Timber or Mineral: N/A

Agricultural Resource: N/A

Biologically Sensitive Habitat: N/A

Fire Hazard: N/A

Floodplain: N/A

Erosion: N/A

Landslide: N/A

Liquefaction: N/A

Fault Zone: N/A

Scenic Corridor: N/A

Historic: N/A

Archaeology: N/A

Noise Constraint: N/A

Electric Power Lines: N/A

Solar Access: N/A

Solar Orientation: N/A

Hazardous Materials: N/A

Other:

**SERVICES**

Fire Protection: All

School District: All

Sewage Disposal: Sewer and Septic

Drainage District: All

Project Access: N/A

Water Supply: Water Districts, Private Wells

**PLANNING POLICIES**

Zone District: Countywide

General Plan: Countywide

Urban Services Line:  Inside

Coastal Zone:  Inside

Special Designation:

Outside

Outside

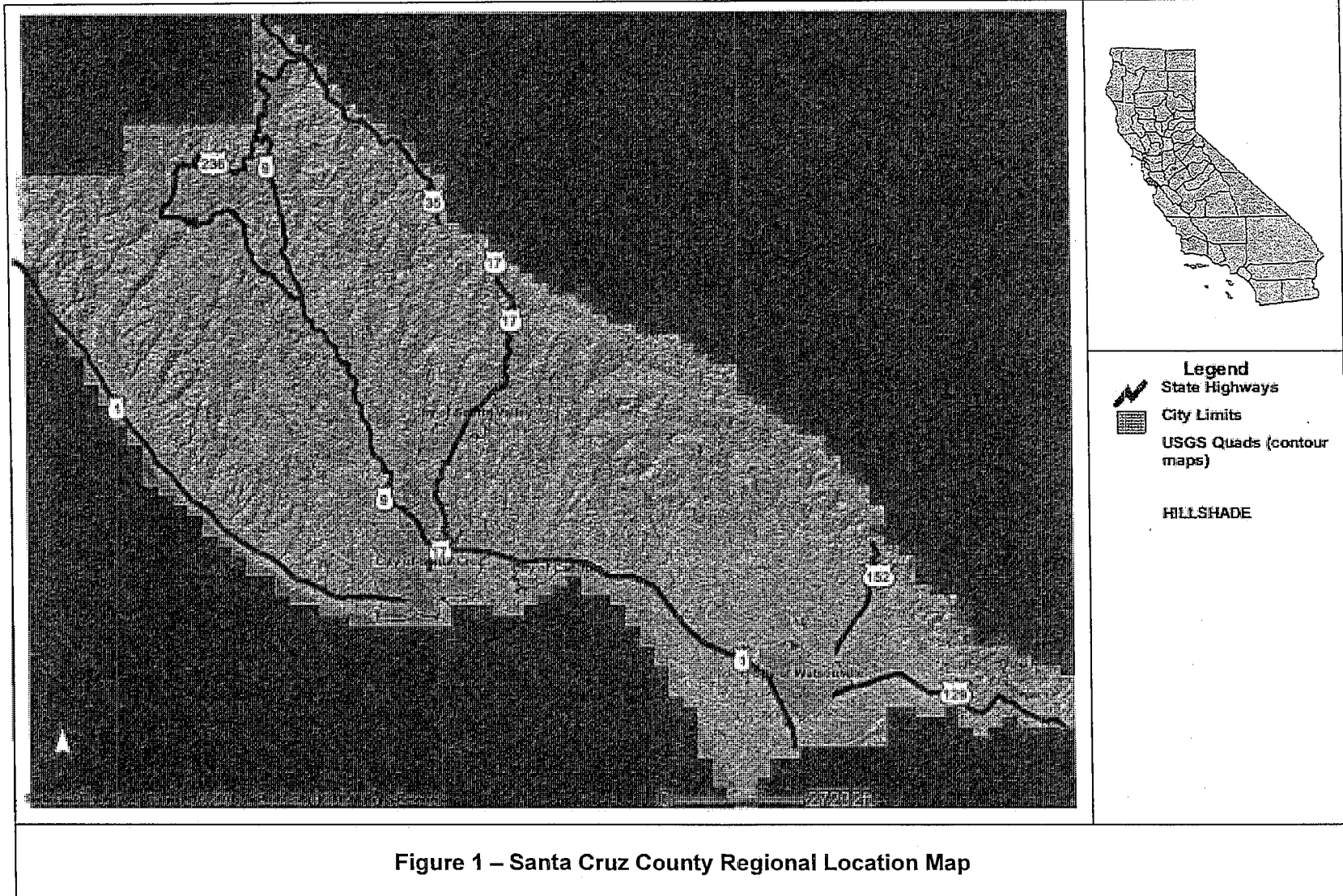
**PROJECT LOCATION:**

The proposed project is located in the unincorporated County of Santa Cruz and is applicable to retail uses countywide (Figure 1). The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay.

**ENVIRONMENTAL SETTING:**

Globally, an estimated 500 billion to 1 trillion petroleum-based plastic bags are used each year, which is equal to approximately one million per minute, the production and use of which uses over 12 million barrels of oil. The California Integrated Waste





Management Board estimates that Californians use nearly 20 billion single-use plastic bags per year and discard over 100 plastic bags per second. Further, the Environmental Protection Agency estimates that only 5% of the plastic bags in California and nationwide are currently recycled.

The production and disposal of plastic bags have caused significant environmental impacts, including contamination of the environment, the deaths of thousands of marine animals through ingestion and entanglement, widespread litter and degradation of the urban environment, and increased disposal costs.

Most plastic carryout bags do not biodegrade, but instead persist in the environment for hundreds of years. Rather than breaking down, they slowly break up through abrasion, tearing, and photo degradation into toxic plastic bits that contaminate soil and water, while entering the food web when animals accidentally ingest these materials. Toxic substances present in plastics are known to cause death or reproductive failure in fish, shellfish, wildlife, and in the humans ingesting the fish.

Plastic bits absorb dangerous compounds such as dichlorodiphenyldichloroethylene (DDE), Polychlorinated Biphenyl (PCB), and other toxic materials present in ocean water. Plastics have been found to concentrate these toxic chemicals at levels of up to one million times the levels found in seawater. Plastic bits have displaced plankton in the Pacific Gyre.

The U.S. Marine Mammal Commission estimates that 257 marine species have been reported entangled in or having ingested marine debris. Plastic can constrict the animals' movements or block their digestive system, killing the animals through starvation, exhaustion, or infection from deep wounds caused by tightening material.

According to Save Our Shores, a Santa Cruz based marine conservation nonprofit that conducts beach, river, and inland cleanups in the coastal regions of Santa Cruz, San Mateo, and Monterey County, from June 2007 to March 2010 they conducted 395 cleanups where volunteers removed a total of 19,080 plastic bags. Unchecked, this material would have likely entered the marine environment of the Monterey Bay National Marine Sanctuary (MBNMS).

Plastic bags returned to supermarkets may be recycled into plastic lumber; however, a very low percentage of bags are actually returned. Recycling bags into lumber does not reduce the impact of making new plastic carryout bags.

Compostable plastic carryout bags, which are currently manufactured, do not solve the problems of wildlife damage, litter, or resource use addressed by the proposed ordinance. Compostable carryout are designed to remain intact until placed in a professional compost facility, so they do not degrade quickly as litter or in a marine environment. Producing compostable bags consumes nearly as much fossil fuel as non-compostable bags. Mixing compostable bags with regular plastic bags prevents recycling or composting either of them. Therefore, there is no exemption in the proposed ordinance for compostable carryout bags.

According to Californians Against Waste, Californians pay up to \$200 per household each year in state and federal taxes to clean up litter and waste associated with single-

use bags, on top of the \$40 per household per year in hidden grocery costs to offset the expense to nearly 1,000 “free” bags received from grocers.

Reusable bags are readily available from numerous sources and vendors. Many grocery and other retail establishments throughout the County of Santa Cruz already offer reusable bags for sale at a price as low as \$0.25.

The proposed ordinance recognizes that there are energy and environmental consequences of using paper bags. While paper bags do not have the same end of use impacts of plastic bags, they may use comparable or more energy and resources to manufacture. For this reason, a store charge on paper bags is indicated, as an incentive to reduce their use and encourage reusable bags. Paper bags that contain a minimum of 40% post consumer recycled content have fewer negative impacts than virgin paper bags. In addition, paper shopping bags with 40% post consumer recycled content are easily available, and such bags are widely used by County of Santa Cruz merchants.

#### **PROJECT BACKGROUND:**

On November 3, 2009, the County of Santa Cruz Board of Supervisors directed Public Works and the Commission on the Environment (Commission) to develop a proposed ordinance banning single-use plastic and paper carryout bags for Board consideration no later than April 20, 2010, with an additional direction to include the Integrated Waste Management Local Task Force (Task Force) in development of the ordinance. On March 24, 2010, the Commission approved a draft ordinance with a recommendation to submit it to the Board.

Representatives of the cities of Watsonville, Scotts Valley, Capitola and Santa Cruz have also been involved in this process, and the city council of each jurisdiction will soon be considering similar measures. The cities of San Francisco, Oakland, Los Angeles, and numerous others have already taken similar action, and many more are in the process.

Controlling the release of plastic bags into the environment is one of the more challenging problems because only 5% are currently recycled (U.S. EPA 2005). Much of the remaining 95% are either landfilled, become litter on roadsides and beaches, or end up in the marine environment where they choke wildlife and release toxic chemicals into the ocean. Under Section 1(a) of State Assembly Bill 2449 (Approved by the Governor on September 30, 2006), the Legislature declared all of the following regarding plastic carryout bags:

*“(1) On a global level, the production of plastic bags has significant environmental impacts each year, including the use of over 12 million barrels of oil, and the deaths of thousands of marine animals through ingestion and entanglement.*

*“(2) Each year, an estimated 500 billion to 1 trillion plastic bags are used worldwide, which is over one million bags per minute, and of which billions of bags end up as litter each year.*

*“(3) Most plastic carryout bags do not biodegrade which means that the bags break down into smaller and smaller toxic bits that contaminate soil and waterways and enter into the food web when animals accidentally ingest those materials.”*

Paper bags also have environmental impacts, including the loss of forests and high usage of energy and water in the production. The proposed ordinance addresses both problems by banning the use of plastic carryout bags at retail establishments, while imposing a modest store charge for the use of paper bags, to encourage the use of reusable bags, which are convenient and widely available.

The County of Santa Cruz has always taken an active stand in support of the local environment. This measure would help to reduce litter throughout the County and reduce the impacts of plastic bags on area beaches and the marine environment. It would also save County resources currently allocated to litter abatement and bring the County closer to the goal of zero waste.

**LIFE-CYCLE ASSESSMENT:**

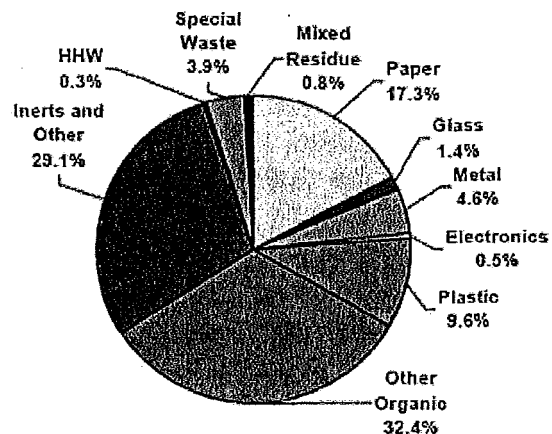
The life cycle assessment is an objective process to evaluate the environmental burdens associated with a product, process, or activity by identifying and quantifying energy and materials usage and environmental releases, to assess the impact of those energy and material uses and releases on the environment, and to evaluate and implement opportunities to effect environmental improvements. The assessment includes the entire life cycle of the product, process or activity, encompassing extracting and processing raw materials; manufacturing, transportation, and distribution; use/reuse/maintenance; recycling; and final disposal.

The following discussions compare life-cycle impacts of various types of single-use and reusable bags, based on previous LCAs. Some of these studies were useful to the extent that they reviewed previous studies. Others provided additional information, analyses, and conclusions.

**Single-use Plastic Bags**

Single-use disposable plastic grocery bags are typically made of thin, lightweight high-density polyethylene (HDPE) #2. For consumers, they offer a hygienic, odorless, and sturdy carrying sack. Currently, almost 20 billion of these plastic grocery bags are consumed annually in California (CIWMB 2007). According to the California 2008 Waste Characterization Study conducted by Cascadia Consulting Group for the California Integrated Waste Management Board (CIWMB 2009), plastic of all types makes up almost 10% of California’s disposed waste stream (ICF International, 2010), as shown in Figure 2.

Figure 2  
Make-up of California Disposable Waste Stream (CIWMB 2009)



Plastic grocery and other merchandise bags – defined in the CIWMB 2009 study as “plastic shopping bags used to contain merchandise to transport from the place of purchase, given out by the store with the purchase” – are only a small part off the total plastic in the waste stream. Plastic bags account for 0.3% of the total waste stream, or

approximately 123,400 tons. Of this total, grocery bags are estimated to account for 44% by weight (CIWMB 2009). Overall, plastic grocery bags therefore represent approximately 0.13% of the waste stream (plastic produce bags are not included in these numbers; ICF International, 2010).

Conventional single-use plastic bags are a product of the petrochemical industry. Their life cycle begins with the conversion of crude oil or natural gas into hydrocarbon monomers, which are then further processed into polymers (Herrera 2008). These polymers are heated to form plastic resins, which are then blown through tubes to create the air pocket of the bag. Once cooled, the plastic film is then stretched to the desired size of the bag and cut into individual bags (ICF International, 2010).

The plastic resin pellets are a concern when released into the environment. The California State Water Resources Control Board describes the problem as follows:

*“Preproduction plastic is a problematic type of litter due to its small size and persistence. One pound of palletized HDPE plastic can contain approximately 22,000 pellets. Preproduction plastic slowly photodegrades over time by breaking down into smaller and smaller pieces and researchers are unclear as to how long it takes some petroleum-based plastics to degrade. Depending on the plastic type, estimates range from one to ten years up to several centuries to fully degrade.”*

*“Once in the environment, preproduction plastic resin pellets, powders, and production scrap can be mistaken for food by marine life. They also contribute to California’s litter problem, which state and local agencies spend millions of dollars per year on collecting. Preproduction plastic discharges pose a significant threat to California’s marine environment, which is an important part of California’s \$46-billion dollar ocean-dependent, tourism economy (SWRCB 2010).”*

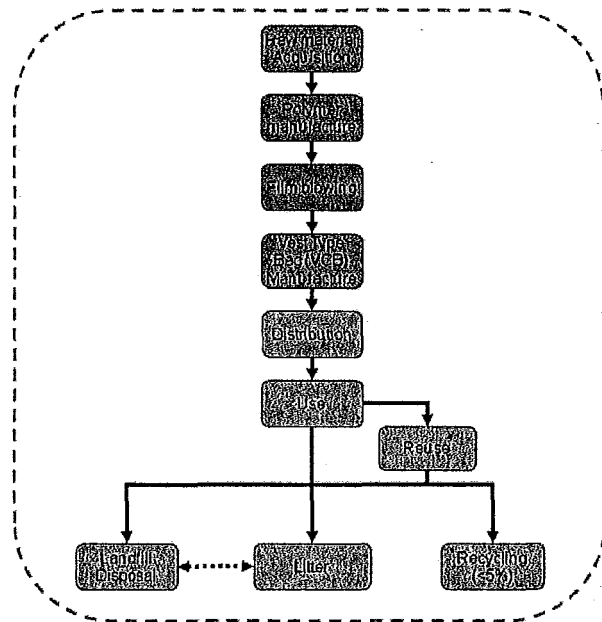
Typical single-use plastic bags are approximately 5-9 grams (g) in weight, and can be purchased in bulk for approximately 2-5 cents per bag. Plastic bags made from recycled materials cost approximately twice as much as those made from virgin materials (AEA Technology 2009). Many of the plastic bag manufacturers in California do not manufacture plastic grocery bags (<http://www.thomasnet.com>, 2010).

Once manufactured, the bags are packaged and shipped to distributors who sell them to grocery stores throughout the state. Customers may reuse the bags at home, but eventually the bags will be disposed in the landfill or recycling facility or discarded as litter. The majority of bags end up as litter or in the landfill, and even those in the landfill may be blown away as litter due to their light weight. Although some recycling facilities will handle plastic bags, most reject them because they can get caught in the machinery and cause malfunctioning, or are contaminated after use. Indeed, only approximately 5% of the plastic bags in California and nationwide are currently recycled (U.S. EPA 2005). According to the American Chemistry Council, HDPE plastic bag production and use appears to be on the rise. Sales of HDPE plastic film production grew by 4.2 percent in 2009 as compared to 2008, and HDPE production grew by 4.4% overall (American Chemistry Council 2009). However, LDPE retail bag production was down

by 22.1%, and Linear Low Density Polyethylene retail bag production was down 19.7% compared with the same period (American Chemistry Council 2009).

In 2006, California enacted AB 2449 (Chapter 845, Statutes of 2006), which became effective on July 1, 2007. The statute provides that stores that provide plastic carryout bags to customers must provide at least one plastic bag collection bin in an accessible spot to collect used bags for recycling. The store operator must also make reusable bags available to shoppers for purchase. Figure 3 outlines the general life cycle of the plastic bag (ICF International, 2010).

Figure 3  
Life Cycle of Plastic Single-use Bag



Source: ICF International 2010

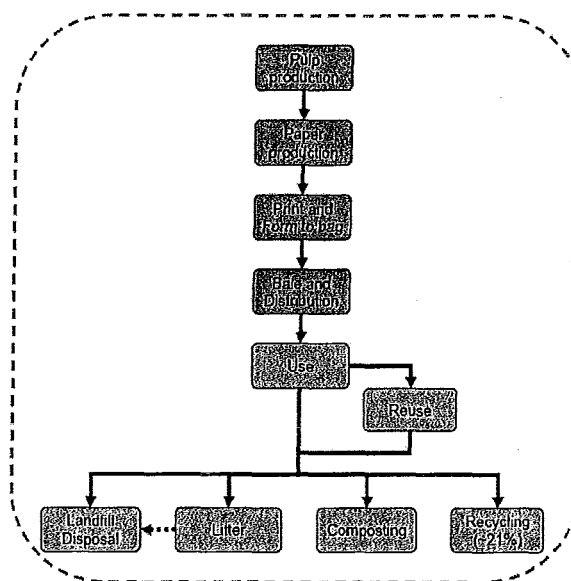
**Single-use Paper Bags**

Like plastic grocery shopping bags, single-use paper bags are distributed free of charge to customers at grocery stores, and are intended for one use before disposal. Paper products make up 17% of the California disposal waste stream (see Figure 2; CIWMB 2009). A subcategory, paper bags – including bags and sheets made from kraft paper; the paper may be brown or white, and examples include paper grocery bags, department store bags, and heavyweight sheets of kraft packing paper – make up 0.4% of the total disposable waste stream, or approximately 155,800 tons. Approximately 37% of paper bags nationwide are recycled (U.S. EPA 2008). Although the percent is assumed to be similar in California, there is anecdotal evidence that California may have substantially higher rates. The City of San Francisco’s Department of the Environment estimates that at least 60% of paper bags are recycled in the city (City and County of San Francisco 2010). Similarly, according to StopWaste, Alameda County currently achieves a 60-80% paper bag recycling rate (StopWaste 2010).

In addition, paper bags themselves may be made of post-consumer recycled paper. Weyerhaeuser, a major kraft paper bag manufacturer, reported to Boustead Associates (2007) that its unbleached kraft grocery bag contains approximately 30% post-consumer recycled content (Boustead Consulting and Associates 2007). Anecdotal evidence suggests that kraft paper bags with substantially higher post-consumer recycled content are also available. In particular, San Francisco has set a minimum 40% recycled content level for paper bags distributed within the city. StopWaste reports this and other similar requirements have led most supermarkets in California to switch to 40% recycled content paper bags (StopWaste 2010).

Paper grocery bags are typically produced from kraft paper and weigh anywhere from 50-100g, depending on whether or not the bag includes handles (AEA Technology 2009). These bags can be purchased in bulk for approximately 15-25 cents per bag ([www.mrtakeoutbags.com](http://www.mrtakeoutbags.com)). Kraft paper bags are manufactured from a pulp that is produced by digesting a material into its fibrous constituents via chemical and/or mechanical means (FRIDGE 2002). Draft pulp is produced by chemical separation of cellulose from lignin. Chemicals used in the process include caustic sodas, sodium hydroxide, sodium sulfide, and chlorine compounds (Environmental Paper Network 2007). Processed and then dried and shaped into large rolls, the paper is then printed, formed into bags, baled, and then distributed to grocery stores. After use, the bags are frequently reused as wastebasket liners. Ultimately, while about 20% of paper bags are recycled, the remaining 80% are landfilled, left as litter, or composted. Because they are heavier than plastic bags, paper bags are less likely to be blown off landfills as litter, and those bags that are left as litter may decompose (Greene 2007). Figure 4 outlines the general life cycle of the Kraft paper bag (ICF International, 2010).

Figure 4  
Life Cycle of Kraft Paper Bag



Source: ICF International 2010

### Single-use Biodegradable Plastic Bags

Biodegradable bags are generally viewed as an eco-friendly alternative to HDPE plastic bags because they are advertised as being as strong as conventional plastic bags and will decompose at end of life rather than persist and pose aesthetic and health hazards. According to [www.ecoproducts.com](http://www.ecoproducts.com), BioBag compostable trash liners will biodegrade in as little as 45 days if disposed at a commercial compost facility. On the shelf they will be stable for up to two years. Multiple types of degradable bags are currently available, distinguished by their material components. They are composed of thermoplastic starch-based polymers, which are made with at least 90% starch from renewable resources such as corn, potato, tapioca, or wheat, or from polyesters, manufactured from hydrocarbons, or starch-polyester blends (James and Grant 2005).

Biodegradable plastics are defined according to the American Society for Testing and Materials (ASTM) D6400 standards as degradable in the presence of naturally occurring microorganisms. These plastics are capable of undergoing decomposition into carbon dioxide, methane, water, inorganic compounds, or biomass (Greene 2007). Compostable plastics are a subset of biodegradable plastics that are defined according to ASTM D6400 standards as those biodegradable plastics that will decompose during composting at a rate consistent with other known compostable materials and leave no visible distinguishable or toxic residue (CIWMB 2008). Many biodegradable plastic bags made of corn or potato starch, sugarcane, or polylactic (PLA) or polyhydroxyalkanoate (PHA) acid, are considered compostable. However, while PHA-

based bags will degrade in oceans and open lands, PLA-based bags will not degrade significantly in non-composting environments (CIWMB 2008). According to Greene (2007), polyethylene plastic bags produced with starch additives are not certified as compostable plastics because after disintegration they will leave small plastic fragments in the compost (Greene 2007). Two of the biodegradable plastics currently on the market are the corn-starched based polymer marketed by Novamont known as 'Mater-Bi,' and 'EcoFlex,' which is made of a polyester polymer. Ruiz (2007) examined both the Mater-Bi and EcoFlex bags to determine their ability to degrade in an aerobic composting environment. Both of these bags disintegrated within 30-60 days under laboratory composting conditions (Ruiz 2007). Mohee et al. (2006) also tested the rate of composting for Mater-Bi bags compared with plastic bags made with biodegradable additive. Although the Mater-Bi bags made of starch degraded completely within 60 days, the others required a significantly longer time frame (Mohee et al. 2006).

Biodegradable bags often take months or years to decompose, and, depending on their material composition, only do so in ideal composting environments (i.e., PLA-based plastic bags). Clearly, if a bag begins to decompose too early due to exposure to high temperatures, light, or moisture, its carrying capacity would be compromised (Cadman et al. 2005). Although the bags may be unstable in extreme conditions, initial studies have indicated that end-of-life biodegradable bags may decompose slowly if at all. Greene (2007) tested the degradation of a corn starch-based compostable bag compared to a Kraft paper bag in a green yard-waste composting environment. After 20 weeks, each bag had degraded between 80% and 90% (Greene 2007). Given that PHA-based plastics do not degrade unless in a composting environment, and the compostable bag required 20 weeks for incomplete degradation under ideal conditions, the claim that biodegradable bags will solve the plastic bag litter problem because they will degrade may be somewhat misleading.

Furthermore, although some regions within California have processing facilities that are prepared for biodegradable bags, others may not. For instance, an article in the Los Angeles Times (Proctor 2007) pointed out that although biodegradable bags are required in San Francisco, this policy may not be appropriate in Los Angeles due to the lack of processing facilities to handle biodegradable bags (Proctor 2007). Biodegradable bags that end up in the ocean may not decompose quickly enough to prevent the risks of injury to marine animals.

Additional characteristics of biodegradable bags suggest that they are not an appropriate substitute for HDPE plastic bags. Biodegradable bags cannot be recycled with other plastic bags. If they enter the recycling material stream, they could contaminate the resulting recycled material, making it unusable (Cadman et al. 2005).

Biodegradable bags made of Mater-Bi provide a convenient example of the manufacturing process. They are manufactured following the steps outlined in Figure 5. These bags are approximately the same size and weight as single-use HDPE plastic bags, but are substantially more expensive. They can be purchased in bulk for approximately 12-30 cents per bag ([www.ecoproducts.com](http://www.ecoproducts.com)) (ICF International, 2010).



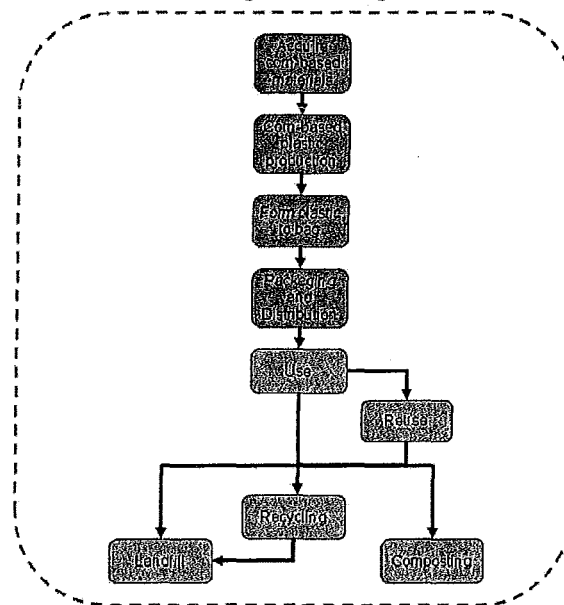
### Reusable Bags

Reusable bags can be made of various materials including polyethylene (PE) plastic, polypropylene (PP) plastics, multiple types of cloth (cotton canvas, nylon, etc.), and recycled plastic beverage containers (polyethylene terephthalate, or PET), among others. The State of California under AB 2449 defines these bags as “a bag with handles that is specifically designed and manufactured for multiple reuse and is either made of cloth or other machine washable fabric, and/or thick, durable plastic (at least 2.25 mils thick). These bags differ from the single-use bags in their weight and longevity. Built to withstand many uses, they typically cost approximately \$1-5 wholesale, weigh at least 10 times an HDPE plastic bag and 2 times a paper bag, and require significantly greater material consumption on a per bag basis than HDPE plastic bags (ExcelPlas Australia 2004). However, because they can be used hundreds of times, reusable bags can be expected to have a lower environmental impact than plastic bags.

Many types of reusable bags are available today. These include: non-woven polypropylene (100% recyclable) ranging from \$1-\$2.50 per bag; cotton canvas, which is approximately \$5.00 per bag; 100% recycled plastic water/soda bottles, which is approximately \$6.00 per bag; polyester and vinyl, which is approximately \$10.00 per bag; and 100% cotton, which is approximately \$10.00 per bag. At the same time, some stores offer reusable bags at substantially less cost in order to reduce the number of single-use bags being used. For example, in early 2010, Whole Foods Markets was selling a small grocery bag made of 80% post-consumer recycled plastic bottles for \$0.79. The production stages in reusable bag life cycles depend on the materials used. Once used, these bags are reused until worn out through washing or multiple uses, and then disposed either in the landfill or recycling facility. Due to their weight, they are less likely than plastic bags to blow off a landfill and become litter.

No comprehensive California-specific life-cycle study has been conducted of the reusable bags commonly used in the state. Therefore, it is unclear which types of reusable bags have the least environmental impacts. However, previous LCAs not focused in California (James and Grant 2005, and Hyder Consulting 2007) suggest that the non-woven plastic durable bag has the greatest environmental benefits overall, based on an analysis of multiple types of reusable bags (ICF International, 2010).

Figure 5  
Life Cycle of Mater-Bi and Other Corn-based Biodegradable Bags



Source: ICF International 2010

## REGULATORY ENVIRONMENT

The following is a general overview of the regulatory requirements that are relevant to plastic carryout bags.

### California Statutes

#### **AB 2449**

In 2006, California enacted AB 2449 (Chapter 845, Statutes of 2006), which became effective on July 1, 2007. The statute provides that stores that provide plastic carryout bags to customers must provide at least one plastic bag collection bin in an accessible spot to collect used bags for recycling. The store is required to keep records describing the collection, transport, and recycling of plastic bags collected for a minimum of three years and make the records available to state or the local jurisdiction, upon request, to demonstrate compliance with this law (Public Resources Code Section 42252(d)).

AB 2449 applies to retail stores of over 10,000 square feet that include a licensed pharmacy and to supermarkets with gross annual sales of \$2 million or more, which sell dry groceries canned goods, nonfood items, or perishable goods. Stores are required to maintain records of their AB 2449 compliance and make them available to the CIWMB or local jurisdiction.

AB 2449 restricts the ability of cities (including charter cities) and counties to regulate single-use plastic grocery bags through imposition of a store charge. Public Resources Code Section 42254(b) provides as follows:

- (b) Unless expressly authorized by this chapter, a city, county, or other public agency shall not adopt, implement, or enforce an ordinance, resolution, regulation, or rule to do any of the following:
  - (1) Require a store that is in compliance with this chapter to collect, transport, or recycle plastic carryout bags.
  - (2) Impose a plastic carryout bag fee upon a store that is in compliance with this chapter.
  - (3) Require auditing or reporting requirements that are in addition to what is required by subdivision (d) of Section 42252, upon a store that is in compliance with this chapter.

AB 2449 expires under its own terms on January 13, 2013, unless extended. There are no other California statutes that directly focus on grocery bags.

#### **AB 1972**

The statute restricts the labeling of grocery bags as "compostable" or "marine degradable" and otherwise prohibits use of the terms "biodegradable," "degradable," or "decomposable" when describing plastic bags. (Public Resources Code Section 42353, et seq.) Public Resources Code Section 42357 provides as follows:

- (a) (1) A person shall not sell a plastic bag in this state that is labeled with the "compostable" or "marine degradable," unless, at the time of sale, the plastic bag meets the applicable ASTM standard specification, as specified in paragraph (1) of subdivision (b) of Section 42356.
  - (2) Compliance with only a section or a portion of a section of an applicable ASTM standard specification does not constitute compliance with paragraph (1).
- (b) Except as provided in subdivision (a), a person shall not sell a plastic bag in this state that is labeled with the term "biodegradable," "degradable," or "decomposable," or any form of those terms, or in any way imply that the bag will break down, fragment, biodegrade, or decompose in a landfill or other environment.

- (c) A manufacturer or supplier, upon the request of a member of the public, shall submit to that member, within 90 days of the request, information and documentation demonstrating compliance with this chapter, in a format that is easy to understand and scientifically accurate.

### **AB 258**

AB 258 was enacted in 2008 to address the problems associated with releasing "preproduction plastic" (including plastic resin pellets and powdered coloring for plastics) into the environment. It enacted Water Code Section 13367 requiring the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) to implement a program to control discharges of preproduction plastic from point and non-point sources.

Program control measures must, at a minimum, include waste discharge, monitoring, and reporting requirements that target plastic manufacturing, handling, and transportation facilities. The program must, at a minimum, require plastic manufacturing, handling, and transportation facilities to implement best management practices to control discharges of preproduction plastics. This includes containment systems, careful storage of pre-production plastics, and the use of capture devices to collect any spills.

### **DETAILED PROJECT DESCRIPTION:**

The project is a proposed ordinance that would eliminate the use of single use plastic carryout bags (plastic bags) and reduce the use of paper carryout bags (paper bags) in the unincorporated areas of Santa Cruz County (Figure 1, Regional Location Map), thereby reducing the number of bags manufactured, and the number that are released to the natural environment or disposed of in landfills. Plastic bags refer to single-use bags of any size that are both compostable and non-compostable plastic bags. Paper checkout bags would be required to have minimum of 40% post consumer recycled content.

Chapter 5.48 of the County Code would prohibit retail product stores from making plastic bags available at checkout stands, and would require them to charge \$0.10 on each paper checkout bag at the point of sale for a period of one year from the date Chapter 5.48 of the County Code takes effect. The store charge would be increased to \$0.25 on each paper carryout bag beyond the initial one-year period. The Board of Supervisors may periodically review the store charge to judge its effectiveness. It has been conservatively estimated that the proposed ordinance would apply to approximately 485 retail establishments within the unincorporated County (see Attachment 2). However, "Optional" language contained within the proposed ordinance would allow single-use paper carryout bags (no plastic) to be distributed by food vendors for the transportation of prepared take-out food intended for consumption off the food vendor's premises without a store charge. Under the "Optional" scenario, the proposed ordinance would fully apply to approximately 400 retail establishments within the unincorporated County by adding Sections 5.48.015(A)(8 and 9) and 5.48.020(I). Under the "Optional" scenario, approximately 85 food establishments would be exempt from the store charge on single-use paper bags.

The ordinance would become effective six (6) months after the date of final passage by the County of Santa Cruz Board of Supervisors. Sixty days before the ordinance would

take effect, the County of Santa Cruz would mail or deliver a copy of Chapter 5.48 of the County Code to every retail establishment within the unincorporated County of Santa Cruz. The County would also distribute a reproducible placard to each store that is designed to inform shoppers of the County of Santa Cruz policy for carryout bags.

This ordinance applies to bags provided at the checkout counter. It does not apply to bags used within the store to contain loose items prior to checkout such as meat, produce, bulk goods, or pre-packaged products. Purchases made under the State Department of Social Services Food Stamp Program, California Special Supplemental Food Program for Women, Infants, and Children (WIC), and other such government-subsidized purchase programs for low-income residents would be exempt from the store charge on paper bags.

This ordinance establishes a ban rather than a store charge on plastic carryout bags, because current California state law prohibits local jurisdictions from charging for plastic bags. (AB 2449 2006). State law does not prohibit jurisdictions from placing a store charge on paper bags.

The County of Santa Cruz has an obligation to protect the environment, the economy and public health, and the County of Santa Cruz has a 75% waste reduction goal by 2010, which is to be reached by waste reduction, reuse, recycling, and composting.

The project proposes to add Chapter 5.48 (The Reduction of Single-use Plastic and Paper Carryout Bags) to Title 5 (Business Regulations) of the Santa Cruz County Code (see Attachment 1 for Chapter 5.48 in its entirety):

**5.48.010 PURPOSE AND FINDINGS.**

- A. It is the intent of the County of Santa Cruz, in enacting Chapter 5.48 to eliminate the common use of plastic single-use carryout bags, encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general.
- B. Whereas the County of Santa Cruz has an obligation to protect the environment, the economy and public health, and the County of Santa Cruz has a 75 percent waste reduction goal by 2010, which is to be reached by waste reduction, reuse, recycling, and composting, the County of Santa Cruz makes the following findings:
  - 1. Globally, an estimated 500 billion to 1 trillion petroleum-based plastic bags are used each year, which equals over one million per minute, the production and use of which uses over 12 million barrels of oil. The California Integrated Waste Management Board estimates that Californians use nearly 20 billion single-use plastic bags per year and discard over 100 plastic bags per second. Further, the Environmental Protection Agency estimates that only 5 percent of the plastic bags in California and nationwide are currently recycled.
  - 2. The production and disposal of plastic bags have caused significant environmental impacts, including contamination of the environment, the deaths of thousands of marine animals through ingestion and entanglement, widespread litter and debasement of the urban environment, and increased waste disposal costs.
  - 3. Most plastic carryout bags do not biodegrade, but instead persist in the environment for hundreds of years. Rather than breaking down, they slowly break up through abrasion, tearing, and photo degradation into toxic plastic bits that contaminate soil and water, while entering the food web when animals inadvertently ingest these materials. Toxic

substances present in plastics are known to cause death or reproductive failure in fish, shellfish, wildlife, and in the humans ingesting the fish.

4. Plastic bits absorb dangerous compounds such as dichlorodiphenyldichloroethylene (DDE), Polychlorinated Biphenyl (PCB), and other toxic materials present in ocean water. Plastics have been found to concentrate these toxic chemicals at levels of up to one million times the levels found in seawater. Plastic bits have displaced plankton in the Pacific Gyre.
5. The U.S. Marine Mammal Commission estimates that 257 marine species have been reported entangled in or having ingested marine debris. Plastic can constrict the animals' movements or block their digestive system, killing the animals through starvation, exhaustion, or infection from deep wounds caused by tightening material.
6. According to Save Our Shores, a Santa Cruz based marine conservation nonprofit that conducts beach, river, and inland cleanups in the coastal regions of Santa Cruz, San Mateo, and Monterey County; from June 2007 to March 2010 they conducted 395 cleanups where volunteers removed a total of 19,080 plastic bags. Unchecked, this material would have likely entered the marine environment of the Monterey Bay National Marine Sanctuary.
7. Plastic bags returned to supermarkets may be recycled into plastic lumber; however, a very low percentage of bags are actually returned. Recycling bags into lumber does not reduce the impact of making new plastic carryout bags.
8. Compostable plastic carryout bags, are currently manufactured, do not solve the problems of wildlife damage, litter, or resource use addressed by the proposed ordinance. Compostable carryout bags are designed to remain intact until placed in a professional compost facility, so they do not degrade quickly as litter or in a marine environment. Producing compostable bags consumes nearly as much fossil fuel as non-compostable bags. Mixing compostable bags with regular plastic bags prevents recycling or composting either of them. Therefore, there is no exemption in the proposed ordinance for compostable carryout bags.
9. According to Californians Against Waste, Californians pay up to \$200 per household each year in state and federal taxes to clean up litter and waste associated with single-use bags, on top of the \$40 per household per year in hidden grocery costs to offset the expense of nearly 1,000 "free" bags received from grocers.
10. Reusable bags are readily available from numerous sources and vendors. Many grocery and other retail establishments throughout the County of Santa Cruz already offer reusable bags for sale at a price as low as 25 cents.
11. The proposed ordinance recognizes that there are energy and environmental consequences of using paper bags. While paper bags do not have the end of use impacts of plastic bags, they may use comparable or more energy and resources to manufacture. For this reason, a store charge on paper bags is indicated, as an incentive to reduce their use and encourage reusable bags. Paper bags that contain a minimum of 40% post consumer recycled content have fewer negative impacts than virgin paper bags.
12. Paper shopping bags with 40% post consumer recycled content are easily available, and such bags are widely used by County of Santa Cruz merchants.
13. State law currently prohibits local jurisdictions from charging for single-use carryout plastic bags. Therefore, several California cities have adopted or are pursuing a ban

as the most effective remaining means to eliminate the impacts these plastic bags cause. State law does not prohibit jurisdictions from charging for paper bags.

**5.48.015 DEFINITIONS.**

A. For the purposes of this Chapter, the following definitions apply:

1. "Carryout bags" means bags provided by retailers to customers at the point of sale to hold customers' purchases. "Carryout bags" do not include bags used to contain loose items prior to checkout, such as meat, produce and bulk goods, and does not include prepackaged products.
2. "Single-use plastic bag" or "single-use plastic checkout bag" means a single-use checkout bag of any size that is made from plastic and provided at point of sale to customers by a retail establishment and is not reusable. Single-use plastic carryout bags include both compostable and non-compostable carryout bags.
3. "Single-use paper bag" means a checkout bag provided by a retail establishment at the point of sale that is made from paper and is not a reusable bag.
4. "Recyclable" means material that can be sorted, cleansed, and reconstituted using the County's available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating, converting, or otherwise thermally destroying solid waste.
5. "Reusable bag" means any bag with handles that is specifically designed and manufactured for multiple reuse, and is either 1) made of cloth or other washable fabric, or 2) made of durable material that is at least 2.25 mils thick and is specifically designed to carry a minimum of 22 pounds for at least 125 times over a distance of 175 feet (A "reusable bag" may be made of plastic), 3) Have printed on the bag, or on a tag attached to the bag that is not intended to be removed, and in a manner visible to the consumer the following information: (A) The name of the manufacturer, (B) The location (country) where the bag was manufactured, (C) A recycling symbol or end-of-life management instructions, and (D) The percentage of postconsumer recycled material, if any; and 4) It shall not contain lead, cadmium, or any other heavy metal in toxic amounts.
6. "Retail establishment" or "retail store" means all sales outlets, stores, shops, restaurants, vehicles or other places of business located within the County of Santa Cruz which operate primarily to sell or convey goods, including "to go" food, directly to the ultimate consumer.
7. "Exempted uses" means those point-of-purchase or delivery sales, which have received an exemption, under Section 5.48.030 that allows the use of single-use bags.
8. **(OPTIONAL)** *"Prepared food" means foods or beverages which are prepared on vendor's premises by cooking, chopping, slicing, mixing, freezing or squeezing, and which require no further preparation to be consumed. "Prepared food" does not include any raw uncooked meat product or fruits or vegetables, which are not chopped, squeezed, or mixed.*
9. **(OPTIONAL)** *"Take-out food" means prepared food or beverages requiring no further preparation to be consumed, and which are generally purchased in order to be consumed off restaurant or retail food vendor's premises.*

**5.48.020 BAN ON PLASTIC CARRYOUT BAGS AND STORE CHARGE FOR OTHER SINGLE-USE CARRYOUT BAGS.**

- A. No retail establishment shall provide single-use plastic carryout bags to customers at the point of sale, except as permitted in Section 5.48.030 of this chapter.
- B. Single-use paper carryout bags provided to customers shall contain a minimum of 40 percent post consumer recycled paper fiber, and be recyclable in the County of Santa Cruz's curbside recycling program. In addition, all retail stores subject to this ordinance shall provide

- independent certification (e.g., Forest Stewardship Council; Rainforest Alliance) that paper carryout bags being distributed originate from 40 percent post-consumer recycled fiber. Proof of certification shall be provided once annually to the Director of Public Works, or designee.
- C. During the period of time starting on the date that this chapter takes effect and continuing for one year thereafter, retail establishments shall charge 10-cents for each single-use paper checkout bag provided to customers at the point of sale. At the completion of the initial one-year period established by this subdivision, the charge shall increase to 25 cents per bag provided. There shall be a rebuttal presumption that this amount shall not be less than 10 cents for the first year and 25 cents thereafter. A store may charge a lesser amount if it submits a full accounting to the Director of Public Works, signed by a responsible manager under penalty of perjury, that identifies all costs including bag purchase, shipping handling and storage, showing a lesser actual cost to the store for each bag. Any such accounting shall expire one year from the date of original submission and must be resubmitted. Retail establishments shall keep annual records of paper bag distribution to be made available to the Director of Public Works, or designee upon request. The records shall be evaluated annually for the first five years by the County to ensure the effectiveness of the ordinance. If it is determined that single-use paper bag use has increased beyond anticipated levels, the Board of Supervisors shall consider increasing the minimum store charge to improve the effectiveness of the ordinance.
  - D. The store charge imposed pursuant to this section shall not apply to customers participating in the California Special Supplemental Food Program for Women, Infants, and Children, the State Department of Social Services Food Stamp Program, or other government-subsidized purchase programs for low-income residents.
  - E. The ban on single-use plastic bags and the store charge on single-use paper bags would not apply to plastic or paper bags used to protect produce, meat, or otherwise used to protect items as they are put into a carryout bag at checkout. Other examples include: paper bags to protect bottles, plastic bags around ice cream or other wet items, paper bags used to weigh candy, pharmacy bags or bags to protect greeting cards.
  - F. Retail establishments are strongly encouraged to make reusable bags available for sale to customers at a reasonable price.
  - G. Retail establishments shall indicate on the customer transaction receipt the number of paper carryout bags provided, and the total amount charged for those bags.
  - H. County of Santa Cruz contractors and special events promoters, and their vendors, shall not provide plastic carryout bags to participants while performing under a County of Santa Cruz contract or permit.
  - I. *(OPTIONAL) Notwithstanding the store charge in Section 5.48.020(C) on single-use paper carryout bags, single-use paper carryout bags may be distributed by food vendors for the transportation of prepared take-out food intended for consumption off the food vendor's premises without a store charge.*

#### **5.48.025 IMPLEMENTATION**

- A. Sixty days before this ordinance takes effect, the County of Santa Cruz shall mail or deliver a copy of it to every retail establishment within the unincorporated County of Santa Cruz.
- B. The County of Santa Cruz will distribute to each store a reproducible placard designed to inform shoppers of the County of Santa Cruz policy for carryout bags.

#### **5.48.030 EXEMPTIONS ALLOWING SINGLE-USE PLASTIC CARRYOUT BAGS**

- A. The Director of Public Works, or the Director's designee, may exempt a retail establishment from the requirement set forth in Section 5.48.020(A) of this chapter for a one-year period upon the retail establishment showing, in writing, that this chapter would create an undue hardship or practical difficulty not generally applicable to other persons in similar circumstances. The

- decision to grant or deny an exemption shall be in writing, and the Director's or the designee's decision shall be final.
- B. An exemption application shall include all information necessary for the Director of Public Works or the designee to make a decision, including but not limited to documentation showing factual support for the claimed exemption. The Director or the Director's designee may require the applicant to provide additional information.
  - C. The Director of Public Works or designee may approve the exemption application in whole or in part, with or without conditions.

**5.48.035 ENFORCEMENT**

Enforcement of this ordinance shall be as follows:

- A. The Director of Public Works, or designee, shall have primary responsibility for enforcement of this ordinance and shall have authority to issue citations for violation of this chapter. The director, or designee, is authorized to establish regulations or administrative procedures to ensure compliance with this chapter.
- B. A person or entity violating or failing to comply with any of the requirements of this chapter shall be guilty of an infraction.
- C. The County of Santa Cruz may seek legal, injunctive, or any other relief to enforce the provisions of this chapter and any regulation or administrative procedure authorized by it.
- D. The remedies and penalties provided in this chapter are cumulative and not exclusive of one another.
- E. The Director of Public Works, or designee, may inspect any retail establishment's premises to verify compliance with this ordinance.

**5.48.040 VIOLATIONS**

Violations of this ordinance shall be enforced as follows:

- A. Violation of this chapter is hereby declared to be a public nuisance. Any violation described in the preceding paragraph shall be subject to abatement by the County of Santa Cruz, as well as any other remedies that may be permitted by law for public nuisances, and may be enforced by injunction upon a showing of violation.
- B. Upon a first violation by a retail establishment, the Director of Public Works, or designee, shall mail a written warning to the retail establishment. The warning shall recite the violation, and advise that future violations may result in fines.
- C. Upon a second or subsequent violation by a retail establishment, the following penalties will apply:
  - 1. A fine not exceeding one hundred dollars (\$100) for the first violation that occurs 30 days or more after the first warning.
  - 2. A fine not exceeding two hundred dollars (\$200) for the second violation that occurs 60 or more days after the first warning.
- D. Special Events promoters and their vendors who violate this ordinance in connection with commercial or noncommercial special events shall be assessed fines as follows:
  - 1. A fine not exceeding two hundred dollars (\$200) for an event of 1 to 200 persons.
  - 2. A fine not exceeding four hundred dollars (\$400) for an event of 201 to 400 persons.
  - 3. A fine not exceeding six hundred dollars (\$600) for an event of 401 to 600 persons.
  - 4. A fine not exceeding one thousand dollars (\$1,000) for an event fo 601 or more persons.
- E. Remedies and fines under this section are cumulative.



**5.48.45 SEVERABILITY.**

If any word, phrase, sentence, part, section, subsection, or other portion of this chapter, or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such work, phrase, sentence part, section, subsection, or other portion, or the proscribed application thereof, shall be severable, and the remaining provisions of this chapter, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect. The County of Santa Cruz hereby declares that it would have passed this title, and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases had been declared invalid or unconstitutional.

**5.48.50 EFFECTIVE DATE**

This ordinance shall become effective six (6) months after the date of final passage by the County of Santa Cruz Board of Supervisors.

**5.48.55 NO CONFLICT WITH FEDERAL OR STATE LAW.**

Nothing in this ordinance shall be interpreted or applied so as to create any requirement, power or duty in conflict with any federal or state law.

**5.48.60 PREEMPTION.**

The provisions of this chapter shall be null and void if state or federal legislation, or administrative regulation, takes effect with the same or substantially similar provisions as contained in this chapter. The Board of Supervisors shall determine whether or not identical or substantially similar statewide legislation has been enacted or regulations issued.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**III. ENVIRONMENTAL REVIEW CHECKLIST**

The following analysis assumes that the proposed impacts and mitigation are equivalent for both the proposed ordinance, and the proposed ordinance under the "Optional" scenario unless specifically stated.

**A. GEOLOGY AND SOILS**

Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   |                          |                          |                          |                                     |
| A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| B. Strong seismic ground shaking?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| C. Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| D. Landslides?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion (A through D):** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on the geology, soils and seismicity of the unincorporated areas of Santa Cruz County.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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would not result in an impact on the geology, soils and seismicity of the unincorporated areas of Santa Cruz County.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Develop land with a slope exceeding 30%? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on the geology, soils and seismicity of the unincorporated areas of Santa Cruz County.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on the geology, soils and seismicity of the unincorporated areas of Santa Cruz County.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on the geology, soils and seismicity of the unincorporated areas of Santa Cruz County.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. Place sewage disposal systems in areas dependent upon soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on the geology and soils of the unincorporated areas of Santa Cruz County from sewage disposal systems.

- |                                     |                          |                          |                          |                                     |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Result in coastal cliff erosion? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on coastal cliff erosion within the unincorporated areas of

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Santa Cruz County.

**B. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY**

Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Place development within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on hydrology, water supply, and water quality within the unincorporated areas of Santa Cruz county. No impact is anticipated.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on hydrology, water supply, and water quality within the unincorporated areas of Santa Cruz county. No impact is anticipated.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Be inundated by a seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on hydrology, water supply, and water quality within the unincorporated areas of Santa Cruz county. No impact is anticipated.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. | Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** Implementation of the proposed ordinance would not result in any potentially significant impacts related to increased water use within Santa Cruz County. Implementation of the ordinance would result in the removal of approximately

Potentially Significant Impact      Less than Significant with Mitigation Incorporated      Less than Significant Impact      No Impact

50,000,000 plastic carryout bags annually (see Attachment 2) from distribution in the unincorporated areas, to be replaced by the use of reusable bags and 40% recyclable Kraft paper bags.

As opposed to single-use carryout bags, reusable bags are intended to be used multiple times over many months (or years). As these bags become soiled or dirty from multiple uses (to carryout retail items or to carry other items) it is expected that the user would hand wash or launder the bags. The hand washing of reusable bags or inclusion of reusable bags in routine laundering would not result in any substantial increase in the demand for potable water or significantly impact wastewater treatment capacity within Santa Cruz County. Those who launder their bags would likely place the bags in laundry loads with other clothes and materials, resulting in no new significant water demand. The cleaning of reusable bags by hand usually entails the use of soap with a damp sponge, which requires no significant amounts of water.

Indicator of Environmental Impact	HDPE <sup>2</sup> Plastic Bag	Reusable LDPE <sup>3</sup> Plastic Bag					Kraft Paper Bag
	Single Use	Single Use	Used 2x	Used 4x	Used 20x	Used 50x	Single Use
Water Consumption	1.0	2.60	1.30	0.65	0.13	0.05	4.0
Eutrophication <sup>4</sup> of Water Bodies	1.0	2.80	1.40	0.70	0.14	0.06	14.0




Notes:  
 1. Numbers *greater* than one indicate a *greater* environmental impact compared with single-use HDPE plastic bags. Numbers *less* than one indicate a *lesser* environmental impact.  
 2. High-density Polyethylene Plastic  
 3. Low-density Polyethylene Plastic  
 4. Eutrophication - nitrate and phosphate pollution to water  
 Sources: AEA Technology, 2005 and Ecobilan 2004.

Bag manufacture uses substantial amounts of water. The Ecobilan report (2004) indicates that water consumption over a paper bag's life cycle is 4 times that of an HDPE plastic bag. A reusable LDPE plastic bag results in 2.6 times the consumption of water of an HDPE plastic bag when compared on a per bag basis (Table 1; Ecobilan 2004). In Table 1, the HDPE single-use plastic bag has been given a score of "1" in both categories as a reference point. A score "greater than 1" indicates that another bag (LDPE or Kraft paper) makes more contribution water impacts than the HDPE single-use plastic bag when normalized against volume of shopping carried. A score of "less than 1" indicates that it makes less of a contribution, i.e., less water-related impacts than a HDPE single-use plastic bag. Reuse of the LDPE (reusable) plastic bag three times would be sufficient for per-use water consumption impacts to be less than for HDPE (single-use) plastic bags (*This analysis assumes that reusable LDPE plastic bags would be used on average of twice per week for a one-year period before disposal or recycling.*). When considering an anticipated increase in Kraft paper bag use of 5.5 million bags annually with the addition of approximately 750,000 reusable bags annually under the proposed ordinance (within the unincorporated County of Santa Cruz), the collective water use during their life cycle using Ecobilan (2004) methodology would be roughly 44% of the water currently used to supply 50,000,000

Potentially Significant Impact      Less than Significant with Mitigation Incorporated      Less than Significant Impact      No Impact

plastic bags to the unincorporated County annually. Although shopping bags are not produced in the unincorporated County, this would be a 56% reduction in water use. A beneficial impact is anticipated to water supply.

In addition, Table 2 summarizes the findings of the streamlined environmental assessment of shopping bag alternatives conducted by Hyder (2007). A rating of one to five was used to show the diversity of impacts for each of the criteria, with one being the lowest impact. In some cases at the high impact end, the impact value of the bag fell outside the rating scale. Impacts cannot be added together to produce an overall bag rating (Hyder 2007). Table 2 clearly shows that the life cycle of the HDPE bag uses the least amount of water. Kraft paper bags with 100% recycled content would likely be a close second in terms of water use. However, due to the reduced production and consumption of paper bags as described above, water consumption would be reduced under the proposed ordinance.

Table 2 Environmental Impacts of Single-use HDPE Shopping Bags and Potential Alternatives Considering their Life Cycle							
Bag Type	Material Consumption (lbs)	Global Warming (lbs CO <sub>2</sub> eq)	Energy Consumption (MW)	Water Use (gal H <sub>2</sub> O)	Litter Marine Biodiversity (lbs/y)	Litter Aesthetics (ft <sup>2</sup> /y)	Disposal Options
Reusable Non-woven Plastic (Polypropylene) 	2	2	2	2	2	2	Curbside and Major Supermarket Recycling
Reusable Cloth Bag (Typically Cotton or Canvas)	2	2	2	222222	2	2	No Recycling, Dispose to Landfill
Single-use Plastic (HDPE) Bag <sup>1</sup> 	222	22	2222	2	222222	222222	Curbside and Major Supermarket Recycling <sup>1</sup>
Single-use Compostable Mater-Bi Plastic Bag	2222	2	2	222222	2	2	Compost (degrades within six months under ideal conditions)
Single-use Kraft Paper Bag with 100% Recycled Content	222222	222222	2222	2	2	22	Curbside Recycling
Single-use Kraft Paper Bag (100% Virgin Content)	222222	222222	222222	22	2	22	Curbside Recycling
Single-use 'boutique' Plastic (LDPE) Bag 	222222	222222	222222	2	222222	222222	Curbside Recycling

Notes: (1) Roughly 5% of plastic bags in California and nationwide are currently recycled (U.S. EPA 2005).

- **Material consumption:** Material used in the manufacture of the bag (i.e. mass of the bag multiplied by the number consumed over one year).
- **Global warming:** Climate change effects resulting from the emission of CO<sub>2</sub>, methane or other greenhouse gases into the atmosphere. Greenhouse impacts are dominated by carbon dioxide through electricity and fuels consumption, methane emissions through degradation of materials in anaerobic conditions (e.g. landfill), and nitrous oxide (N<sub>2</sub>O) emissions in fertilizer applications on crops.
- **Energy consumption:** Total energy use including fossil fuel, renewable, electrical and feedstock (i.e. the energy embodied in a bag's material).
- **Water use:** Net water use including potable, process, cooling water. Water quality, water depletion, and biodiversity.
- **Litter marine biodiversity:** This indicator estimates the time that litter in marine environments has the potential for ingestion or entanglement by marine fauna. This indicator is mostly affected by the propensity of the material to float or sink.
- **Litter aesthetics:** This indicator attempts to represent the visual impact of litter, related to the areas of the material and the time before it would degrade. To model this indicator an estimate of the average time a piece of litter may remain in the litter stream was needed. The data used for different materials was as follows:
  - o Plastics (both single use and reusable, but not degradable polymers) – five years
  - o Paper and degradable polymers – six months
  - o Cloth – two years.

Source: Hyder 2007 and County of Santa Cruz 2010.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Furthermore, according to the Ecobilan study (2004), paper bags have 14 times the impact of HDPE single-use plastic bags on eutrophication (e.g., nitrate and phosphate emissions into water that stimulate excessive growth of algae and other aquatic life) as a result of their manufacturing process. Reusable LDPE plastic bags have 2.8 times the impact when used only once. In Table 1, the HDPE plastic bag has been given a score of 1.0, the Kraft paper bag, a score of 14, and the reusable LDPE plastic bag, a score of 0.06 (*assumes 50 uses annually*). When considering an anticipated increase in Kraft paper bag use of 5.5 million bags annually with the addition of approximately 750,000 reusable bags annually under the proposed ordinance, the collective increase in eutrophication of water bodies during their life cycle using Ecobilan (2004) methodology would be roughly 150% of the current rate of generation to supply 50,000,000 plastic bags to the unincorporated county annually (see Attachment 2). Although shopping bags are not produced in the unincorporated county, this would be roughly a 50% increase in the eutrophication of water bodies. The incremental increase in water quality impacts, should they occur, would not be significant at a paper bag manufacturing plant that meets current national Clean Water Act standards for water discharged back into the environment. Therefore, implementation of the proposed ordinance would not result in significant adverse impacts to water supply or water quality.

5. Substantially degrade a public or private water supply? (Including the contribution of urban contaminants, nutrient enrichments, or other agricultural chemicals or seawater intrusion).

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on hydrology, water supply, and water quality within the unincorporated areas of Santa Cruz County. No impact is anticipated.

6. Degrade septic system functioning?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact to septic systems within the unincorporated areas of Santa Cruz County. No impact is anticipated.

7. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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which would result in flooding, on- or off-site?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not existing drainage patterns within the unincorporated areas of Santa Cruz County. No impact is anticipated.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 8. | Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems, or provide additional sources of polluted runoff within the unincorporated areas of Santa Cruz County. No impact is anticipated.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 9. | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam within the unincorporated areas of Santa Cruz County. No impact is anticipated.

- |     |  |                          |                          |                          |                                     |
|-----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 10. | Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not degrade water quality within the unincorporated areas of Santa Cruz County. No impact is anticipated.

**C. BIOLOGICAL RESOURCES**

Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?

**Discussion:**

There are approximately 32 special status wildlife species that occur within the unincorporated County of Santa Cruz in habitats associated with rivers, wetlands, riparian areas, and Monterey Bay (see Table 3). In addition, there are additional special status species that occur within the MBNMS (Figure 6). The infiltration of litter into the natural biotic system poses a substantial threat to wildlife including special status species.

Plastic single-use bags enter the biological environment primarily as litter. This can adversely affect terrestrial animal species, birds, and marine species that ingest the plastic bags, the residue of plastic bags, or become tangled in the bag. Plastic bags and food containers are a significant portion of the trash in urban surface water runoff in California. The proportion of this trash or litter that is made up of single-use plastic bags is unknown.

Over 260 species of wildlife, including invertebrates, turtles, fish, seabirds and mammals, have been reported to ingest or become entangled in plastic debris (see Figure 7). The results include impaired movement and feeding, reduced reproduction, lacerations, ulcers, and death (Laist (1997), Derraik and Gregory (2009)). Ingested plastic bags impact wildlife by clogging animal throats and causing choking, filling animal



Figure 6 – Monterey Bay National Marine Sanctuary  
Source: NOAA 2010.

stomachs so that they cannot consume real food, infecting animals with toxins from the plastic, and entangling animals in the plastic. ExcelPlas Australia (2004) reports that sea turtles sometimes mistake plastic bags for jellyfish, one of their primary food sources. Many have been found bloated with plastic bags in their digestive tract and gut (ExcelPlas Australia, 2004). According to the International Coastal Clean-up Report (2005), 2.2% of all animals found dead during the 2004 survey had been entangled in plastic bags (Ocean Conservancy, 2009). The proportion of these bags that were grocery bags is unknown.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Less directly, the small plastic pellets that are eventually manufactured into bags often end up in storm drains (SWRCB 2010). Mistaken for fish eggs, they are consumed by marine life. A study conducted by Tokyo University geochemist Hideshige Takada found that the toxic chemicals in plastic pellets accumulate in birds at levels of up to one million times the normal level in seawater (Herrera et al, 2008).



Mother otter at Elkhorn Slough in Moss Landing California tries to free her pup from a single-use plastic bag. Photo by Terry McCormac

Figure 7 – Wildlife Entanglement

According to the ExcelPlas Australia (2004) study, material density is more important than degradability in determining the risk of harmful impacts to marine wildlife. Biodegradable plastic bags may have a similar impact, because they only biodegrade at a relatively fast rate when in a composting facility in the presence of microorganisms. In oceans they can take more than five months to partially decompose, leaving a substantial time period during which they may affect wildlife (McClure, 1996). In a study of early Mater-Bi material composed of thermoplastic starch and polycaprolactone, McClure (1996) concluded that starch-based plastics are likely to be a lower risk to marine animals than conventional HDPE plastics (McClure, 1996). However, Herrera et al (2008) points out that while partially degraded smaller pieces of plastic are less likely to be consumed by large marine animals, they may be mistaken as food for smaller animals (Herrera et al., 2008). It is still uncertain whether or not these smaller pieces pose a significant risk, as they may continue to degrade in the smaller animal's digestive tracts (Cadman et al., 2005).

Paper bags are also present in litter but paper does not survive as long or maintain its physical form in the natural environment. Heavy, large single-use Kraft paper grocery bags are not as easily windblown as single-use plastic bags. Lighter weight single-use paper bags are more easily windblown and also break down more quickly. Paper tears easily, especially when wet, and animals are not caught or entangled by paper. When paper degrades, it becomes wood fiber, an organic material. Dyes and inks on or in paper, like the dyes and inks on plastic film, can be either soy-based or petroleum-based and contain chemicals that enter the natural environment when the paper deteriorates.

Although no reviewed studies comprehensively reviewed the impacts of reusable bags on biological resources, it is believed that these bags would not have a significant impact on marine life. Due to the weight and sturdiness of these bags made for multiple uses, reusable bags are unlikely to be littered or carried from landfills by the wind as litter. Therefore, they are less likely to enter the oceans as waste. However, additional research is needed to identify other potential biological resource hazards

Potentially Significant Impact      Less than Significant with Mitigation Incorporated      Less than Significant Impact      No Impact

associated with various types of reusable bags.

Table 3 Special Status Wildlife Species Occurring in Santa Cruz County		
Common/Scientific Name	Federal/State Status	Habitat
<b>Birds</b>		
Marbled murrelet ( <i>Brachyramphus marmoratus</i> )	FT/CE	Forages along coastline and offshore, nests in older stands of coastal redwood and Douglas fir forest within approximately 30 miles of the coast. Nests are created in moss and leaf litter on large diameter branches.
California Brown Pelican ( <i>Pelecanus occidentalis californicus</i> )	FE/DL	Coastal areas, with nesting occurring on islands. Species found occasionally along Arizona's lakes and rivers. The subspecies occurred on the Pacific coast from Canada through Mexico. Breeding was only as far north as central California. It was found on the Lower Colorado River as an annual post-breeding wanderer.
American White Pelican ( <i>Pelecanus erythrorhynchos</i> )	--/CSC	Nests at large freshwater and saltwater lakes, usually on small islands or remote dikes. Nest-site must be flat or gently sloping, lacking shrubs or other obstructions.
Western snowy plover ( <i>Charadrius alexandrinus nivosus</i> )	FT/CSC	Beaches, dry mud or salt flats, sandy banks of rivers, lakes, and ponds. Nests on ground in open beaches and salt or dry mudflats on isolated beaches
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	DL/CE	Breeds near coastal areas and large water bodies. Roosts in conifers or other sheltered sites in winter in some areas. Nests in tall trees and cliffs
Golden Eagle ( <i>Aquila chrysaetos</i> )	--/FP, WL	Found in mountainous areas, canyons, shrubland and grassland. During the winter they are found in shrub-steppe vegetation, also wetlands, river systems and estuaries.
Double crested cormorant ( <i>Phalacrocorax auritus</i> )	--/WL	Nests on rocky islands, cliffs facing water, and stands of trees near water
American peregrine falcon ( <i>Falco peregrinus anatum</i> )	DL/CE	Forages in marshes and grasslands. Nesting habitat includes high, protected cliffs and ledges near water, including man-made structures.
Tricolored blackbird ( <i>Agelaius tricolor</i> )	FSC/CSC	Nomadic resident of Sacramento-San Joaquin Valley and low foothills; nests in colonies within vicinity of fresh water/marshy areas. Colonies prefer heavy growths of cattails and tules.
Northern harrier ( <i>Circus cyaneus</i> )	--/CSC	Nests in coastal freshwater and saltwater marshes; forages in grasslands, agricultural fields, and marshes.
Bank swallow ( <i>Riparia riparia</i> )	--/CT	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/ cliffs with fine-textured/ sandy soils near streams, rivers, and lakes.
California black rail ( <i>Laterallus jamaicensis coturniculus</i> )	--/CT	Saline, brackish, and fresh emergent wetlands. Usually found in immediate vicinity of tidal flooding, not in low wetland areas with considerable annual and/or daily fluctuations in water levels. Nest concealed in dense vegetation, often pickleweed near upper limit of tidal flooding.
Least Bell's vireo ( <i>Vireo bellii pusillus</i> )	FE/CE	Nesting habitat typically consists of well-developed overstories, understories, and low densities of aquatic and herbaceous cover. The understory frequently contains dense subshrub or shrub thickets. Significant overstory species include mature arroyo willows and black willows. Occasional cottonwoods ( <i>Populus</i> sp.) and western sycamore ( <i>Platanus racemosa</i> ) occur in some least Bell's vireo habitats.
Willow flycatcher ( <i>Empidonax traillii</i> )	--/CE	Dense willow thickets are required for nesting and roosting. Low, exposed branches are used for singing posts and hunting perches.
Yellow billed cuckoo ( <i>Coccyzus americanus</i> )	C/CE	Riparian habitat densely foliated, deciduous trees shrubs, especially willows, required for roosting sites Nests in dense cover. Inhabits extensive deciduous riparian thickets or forest with dense, low-level, or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps. Willow almost always a dominant component of vegetation.
Ashy Storm-Petrel ( <i>Oceanodroma homochroa</i> )	--/CSC	Occurs year-round in offshore waters of the continental slope (200-2,000 meters deep) from Cape Mendocino to northern Baja California, Mexico. Spends most of its time at sea, coming to land only to reproduce. Breeds on offshore islands at 17 localities from Southeast Farallon Island to Los Coronados. Nests in natural cavities, sea caves, or rock crevices on islands and on the mainland.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Black Storm-Petrel ( <i>Oceanodroma melania</i> )	--/CSC	See Ashy Storm-Petrel.			
Black Swift ( <i>Cypseloides niger</i> )	--/CSC	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea bluffs above surf, forages widely. Known from the coastal belt of Santa Cruz and Monterey counties, Central and Southern Sierra Nevada, San Bernardino and San Jacinto Mountains.			
Common Loon ( <i>Gavia immer</i> )	--/CSC	Estuarine and subtidal marine habitats along the coast, and uncommon on large, deep lakes in valleys and foothills. Common migrant along coast, including offshore, in November and May.			
Cooper's Hawk ( <i>Accipiter cooperii</i> )	--/CSC	Usually nests in second-growth conifer stands or in deciduous riparian areas, usually near streams. Frequents landscapes where wooded areas occur in patches and groves. Often uses patchy woodlands and edges with snags for perching. Dense stands with moderate crown-depths used for nesting.			
Elegant Tern ( <i>Thalasseus elegans</i> )	--/WL	Primarily feeds in shallow ocean waters beyond the turbulent breaker zone, but also may forage in protected bays			
Saltmarsh Common Yellowthroat ( <i>Geothlypis trichas sinuosa</i> )	--/CSC	Resident of the San Francisco Bay region (including north coastal Santa Cruz county), in fresh and saltwater marshes, requires thick, continuous cover down to water surface for foraging; requires tall grasses, tule patches, willows for nesting.			
Sharp-shinned Hawk ( <i>Accipiter striatus</i> )	--/WL	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements.			
White-faced Ibis ( <i>Plegadis chihli</i> )	--/WL	Prefers to feed in fresh emergent wetland, shallow lacustrine waters, and muddy ground of wet meadows and irrigated, or flooded, pastures and croplands. Nests in dense, fresh emergent wetland. Extensive marshes are required for nesting. Nest made of dead tules or cattails, is built amidst tall marsh plants, sometimes on mounds of vegetation. Considered to be a "rare" summer resident in terms of occurrence in Santa Cruz county.			
Yellow Warbler ( <i>Dendroica petechia brewsteri</i> )	--/CSC	Prefers moist habitats including the edges of marshes and swamps, willow-lined streams, and leafy bogs. It also in habitats dry areas such as thickets, orchards, farmlands, forest edges and suburban yards and gardens. This species is partial to areas of scattered trees, dense shrubbery and any other kinds of moist shady locale. Nests in small trees or dense shrubbery, typically 3 to 8 feet above the ground but occasionally as high as 40 feet.			
<b>Marine Mammals</b>					
Steller sea lion ( <i>Eumetopias jubatus</i> )	FT/--	At sea, Steller sea lions are found primarily over the continental shelf, from nearshore waters out to the shelf break, but some may be found in deeper waters. Rookeries and haul-outs tend to be located in remote areas, usually on exposed reefs, ledges, and beaches. Steller sea lions are found throughout the North Pacific Rim from southern California through the Aleutian and Pribilof Islands to northern Japan and the Okhotsk Sea. Breeding occurs from Año Nuevo Island to the Kuril Islands, with the greatest concentration of rookeries in the Gulf of Alaska and Aleutian Islands.			
Southern sea otter ( <i>Enhydra lutris nereis</i> )	FP/CT	Coastal waters with kelp beds			
<b>Fish</b>					
Tidewater goby ( <i>Eucyclogobius newberryi</i> )	FE/CSC	Benthic communities along shallow waters of Pacific coastal streams and lagoons			
Central Coast Steelhead ESU ( <i>Oncorhynchus mykiss irideus</i> )	FT/--	Fresh water, bays, and nearshore marine waters			
Coho salmon – Central California ESU ( <i>Oncorhynchus kisutch</i> )	FE (FT)/CE	Bay, nearshore marine habitats, and freshwater rivers and creeks that primarily occur in redwood forests			
<b>Reptiles</b>					
Western Pond Turtle ( <i>Clemmys marmorata</i> )	--/CSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation, need basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg laying.			
San Francisco garter snake ( <i>Thamnophis sirtalis tetrataenia</i> )	FE/CE	Potential habitat in northern Santa Cruz county from Waddell Creek north. Wetlands or grasslands, near ponds, marshes, and streams. Preferred habitat is a densely vegetated pond close to a hillside.			

Potentially Significant Impact      Less than Significant with Mitigation Incorporated      Less than Significant Impact      No Impact

Amphibians														
California red-legged frog ( <i>Rana draytonii</i> )	FT/CSC	Occurs in a broad range of freshwater and associated upland habitats throughout the Coast Range, Sierra Nevada and foothills, often found in perennial to seasonal drainages with dense vegetation.												
Foothill yellow-legged frog ( <i>Rana boylei</i> )	FSC/CSC	Partly-shaded, shallow stream and riffles with a rocky substrate in a variety of habitats, requires at least some cobble-sized substrate for egg-laying.												
California tiger salamander ( <i>Ambystoma californiense</i> )	FT/CSC	Annual grasslands and grassy understory of hardwood habitats; need underground refuges (i.e., ground squirrel burrows); need seasonal water sources for breeding.												
Santa Cruz long-toed salamander ( <i>Ambystoma macrodactylum croceum</i> )	FE/CE	Ponds, upland habitat, and linkages in between (which are poorly understood). It frequents coastal woodlands and chaparral near the ponds and freshwater marshes in which it breeds. Burrows of small mammals such as mice, gophers, and moles. It can also be found among the root systems of some plants in upland chaparral and wooded areas. Typically breeds in shallow, temporary freshwater ponds, both natural and human-made. Upland chaparral and woodlands, temporary ponds. The extent of upland habitat adjacent to the ponds varies from a narrow ring of riparian vegetation on the perimeter of the pond to as far as one mile or more out from the pond.												
<p>Notes:</p> <table border="0"> <tr> <td>FE – Federally Endangered</td> <td>CT – California Threatened</td> <td>CSC – California Species of Concern</td> </tr> <tr> <td>FT – Federally Threatened</td> <td>WL – CDFG Watch List</td> <td>DL – De-listed</td> </tr> <tr> <td>C – Federal Candidate for Listing</td> <td>FP – CDFG Fully Protected</td> <td>FSC – Federal Species of Concern</td> </tr> <tr> <td>CE – California Endangered</td> <td></td> <td></td> </tr> </table> <p>Source: CDFG 2009.</p>			FE – Federally Endangered	CT – California Threatened	CSC – California Species of Concern	FT – Federally Threatened	WL – CDFG Watch List	DL – De-listed	C – Federal Candidate for Listing	FP – CDFG Fully Protected	FSC – Federal Species of Concern	CE – California Endangered		
FE – Federally Endangered	CT – California Threatened	CSC – California Species of Concern												
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CE – California Endangered														

Studies and expeditions have documented the mass of trash formed in the Pacific Gyre (also sometimes called the North Pacific Gyre). A gyre is an area within which little wind and extremely high pressure weather systems combine to greatly reduce ocean circulation. The subtropical gyres (they are found in all oceans near the equator) contain the doldrums mentioned in historic texts. The Pacific Gyre contains a growing mass of floating garbage, much of which is plastic. The conditions in the gyre have been well documented since at least 1997 by photographers, biologists, meteorologists, and various governmental agencies and nonprofit organizations.

Gordon Moore, founder of the Algalita Marine Research Foundation, sailed through the Pacific Gyre in 1997. Moore and his crew said that they identified plastic bags from “Sears, Bristol Farms, The Baby Store, El Pollo Loco, Fred Meyer, and Taco Bell ‘Chalupa’ bags.” The Taco Bell bags were the “T-shirt bags with two hand-hold holes that were introduced in the United States in 1979. The Pacific Gyre continues to grow and now reaches into the eastern Pacific and portions of the Hawaiian archipelago and the Papahānaumokuākea Marine National Monument.

Closer home, the National Oceanic and Atmospheric Administration (NOAA) has extensive documentation on contamination by plastic debris in all of the national marine sanctuaries. Three of the sanctuaries are located adjacent to the coast of Northern California and are likely to receive runoff from Monterey Bay, the San Francisco Bay area – Cordell Bank, and the Gulf of the Farallones.

Levels of debris in both the ocean and at the land-sea interface are of growing concern. Various types of debris are known to have adverse effects on marine species. Plastics in the marine environment never fully degrade and recent studies show plastic is consumed by organisms at all levels of the marine food web. DDT and other hydrophobic compounds are known to adhere to plastics. Ingestion and entanglement are two of the many problems associated with marine debris, and may lead to death for many organisms. Types of marine debris of particular concern include balloons,

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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abandoned/discarded fishing gear, plastics and Styrofoam, and consumer goods (e.g., 6-pack rings, plastic shopping bags, beverage bottles). Marine debris originates from both land and ocean-based sources, although the majority of marine debris (approximately 80%) appears to come from land-based sources (U.S. Department of Commerce and U.S. Navy 1999). Land-based sources include: littering, storm water runoff, coastal municipal landfills, loss during garbage transport, open trash collection containers, industrial facilities, and beach-goers. Ocean-based sources include: commercial and recreational fishing, overboard disposal of passenger and commercial shipboard waste, and cargo containers falling off ships in high seas (Source: <http://sanctuaries.noaa.gov/science/condition/cbnms/pressures.html>).

In addition, Table 2 summarizes the findings of the streamlined environmental assessment of shopping bag alternatives conducted by Hyder (2007). A rating of one to five was used to show the diversity of impacts for each of the criteria, with one being the lowest impact. Table 2 clearly shows that the life cycle of the HDPE and LDPE bags result in the greatest impact to marine resources as marine debris due to the increased time required for degradation. Kraft paper bags, and all other reusable bags were determined to result in the least impact on marine resources (Hyder 2007).

The proposed bag ordinance would reduce the amount of plastic that enters the environment through land-based sources within the unincorporated areas of Santa Cruz County; therefore, reducing the impact on special status species occurring within wetland, riparian and marine environments. The Ordinance would be considered beneficial to special status species by reducing the amount of plastic entering the environment. No impact would result from project implementation.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed ordinance would be consistent with the County of Santa Cruz General Plan Policies and Code. The proposed ordinance would also reduce the amount of plastic that enters the environment through land-based sources within the unincorporated areas of Santa Cruz County; therefore, reducing the adverse impacts on wetland and riparian habitats, and the marine environment. The Ordinance would be considered beneficial to sensitive natural communities by reducing the amount of plastic entering the environment. No impact would result from project implementation.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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with established native resident or migratory wildlife corridors, or impede the use of native or migratory wildlife nursery sites?

**Discussion:** The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site. The proposed Ordinance would reduce the amount of plastic that enters the environment through land-based sources within the unincorporated areas of Santa Cruz County; therefore, reducing the adverse impacts on wetland and riparian habitats, and the marine environment. The Ordinance would be considered beneficial to sensitive natural communities by reducing the amount of plastic entering the environment. No impact would result from project implementation.

4. Produce nighttime lighting that would substantially illuminate wildlife habitats?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not produce nighttime lighting that would substantially illuminate wildlife habitats. No impact is anticipated.

5. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

**Discussion:** Please see discussion provided under C-1. The proposed Ordinance would reduce the amount of plastic that enters the environment through land-based sources within the unincorporated areas of Santa Cruz County; therefore, reducing impacts to wetland, riparian and marine environments. The Ordinance would be considered beneficial to federally protected wetlands by reducing the amount of plastic entering the environment. No impact would result from project implementation.

6. Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**Discussion:** Please see discussion provided under C-1. The proposed Ordinance would reduce the amount of plastic that enters the environment through land-based sources within the unincorporated areas of Santa Cruz County; therefore, reducing impacts to wetland, riparian and marine environments. The Ordinance would be considered beneficial to sensitive habitats, and riparian and wetlands by reducing the amount of plastic entering the environment. No impact would result from project implementation.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. | Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

**D. AGRICULTURE AND FOREST RESOURCES**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the unincorporated areas of Santa Cruz County.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Single-use Bag Reduction Ordinance



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on existing zoning for agricultural use, or a Williamson Act contract within the unincorporated areas of Santa Cruz County.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact on existing zoning within the unincorporated areas of Santa Cruz County.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. | Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in a loss of forest land or conversion of forest land within the unincorporated areas of Santa Cruz County.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use within the unincorporated areas of Santa Cruz County.

**E. MINERAL RESOURCES**

Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in the loss of a known mineral resource that would be of value to the region and the residents of the state within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

**F. VISUAL RESOURCES AND AESTHETICS**

Would the project:

1. Have an adverse effect on a scenic vista?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an adverse effect on a scenic vista as designated in the County's General Plan (1994), within the unincorporated areas of Santa Cruz County. The proposed ordinance would likely result in a substantial benefit to the aesthetic environment. Table 2 summarizes the findings of the streamlined environmental assessment of shopping bag alternatives conducted by Hyder (2007). A rating of one to five was used to show the diversity of impacts for each of the criteria, with one being the lowest impact. Table 2 shows that the life cycles of single-use HDPE and LDPE bags result in a substantially higher impact to aesthetic resources from litter than single-use Kraft paper bags (Hyder 2007). Paper bags decompose in the environment at a much higher rate than either of the plastic bags resulting in fewer visual impacts. Therefore, no impact is anticipated from project implementation.

2. Substantially damage scenic resources, within a designated scenic corridor or public view shed area including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

**Discussion:** Also see the discussion under F1. The proposed Ordinance regulates

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not damage scenic resources, within a designated scenic corridor or public view shed area as designated in the County's General Plan (1994). Therefore, no impact is anticipated from project implementation.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Substantially degrade the existing visual character or quality of the site and its surroundings, including substantial change in topography or ground surface relief features, and/or development on a ridgeline? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not degrade the existing visual character of a site within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not create a new source of substantial light or glare, within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

**G. CULTURAL RESOURCES**

Would the project:

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in a substantial adverse change in the significance of a historical resource within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in a substantial adverse change in the significance of an archaeological resource within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

3. Disturb any human remains, including those interred outside of formal cemeteries?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not disturb any human remains, including those interred outside of formal cemeteries within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

4. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

#### H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1. Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials?

**Discussion:** Hygiene associated with reusable bag use has been raised as a concern by the plastic bag industry. Part of the appeal of single-use plastic bags is their cleanliness. Once food has contaminated them, they are usually disposed of. Paper bags are not waterproof, so they are less effective at preventing food contamination of surfaces. However, like single-use plastic bags, they are usually disposed of once contaminated. In contrast, food residue on reusable bags may lead to the growth of mold or harbor bacteria, which in turn may come in contact with other foods. This concern is mostly associated with reusable plastic bags; reusable cloth bags – commonly used in California – are more durable and are routinely tossed into the laundry for cleaning (ICF International, 2010).

The Environment and Plastics Council (EPIC), a standing committee of the Canadian Plastics Industry Association, examined the cleanliness of reusable bags in Canada.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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The study tested 24 reusable plastic bags ranging in age from one month to 3 years, which were obtained from shoppers. Although not explicitly noted, it appears that none of the bags were cloth bags. An open question is whether the results of this study would be repeated if reusable cloth were tested. The plastic bags in this study were tested for 'total plate count', total coliforms, *Escherichia coli* (*E. coli*), *Salmonella*, mold, and yeast. Results suggest that a number of the tested bags had become breeding grounds for yeast and mold; 64% showed some level of bacterial contamination; almost 30% had bacterial counts higher than those considered safe for drinking water; mold was present in 6 of the bags; a few bags had an unacceptable total coliform count (these particular bags had been in use from between 1 and 3 years); but no *E. coli* or salmonella was present (EPIC 2009). EPIC notes that although these bags in theory can be cleaned, it is difficult to thoroughly dry them without first encouraging microbial growth. Furthermore, their flimsiness deters scrubbing (ICF International, 2010).

No studies were found that examine the hygiene of reusing single-use plastic bags. When a plastic bag that originally carried meat or other groceries can leave residues that may lead to the growth of mold or harbor bacteria is subsequently used to carry food, there may be the potential for hygiene problems. However, the health effects of this use, if any, are not expected to be significant.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not create a significant hazard to the public or the environment through the release of hazardous materials into the environment within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school within the unincorporated areas of Santa Cruz County. Therefore, no impact is anticipated from project implementation.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not be located on any hazardous materials sites listed pursuant to Government Code Section 65962.5. Therefore, no impact is anticipated from project implementation.

5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in a safety hazard for people residing or working in a project area. Therefore, no impact is anticipated from project implementation.

6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in a safety hazard for people residing or working in a project area. Therefore, no impact is anticipated from project implementation.

7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, no impact is anticipated from project implementation.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
8. Expose people to electro-magnetic fields associated with electrical transmission lines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not expose people to electro-magnetic fields associated with electrical transmission lines. Therefore, no impact is anticipated from project implementation.

9. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Therefore, no impact is anticipated from project implementation.

**I. TRANSPORTATION/TRAFFIC**

Would the project:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. Although there has been speculation that the elimination of plastic carryout bags would result in an increase in delivery truck trips to the Santa Cruz region due to the increased bulk of Kraft paper bags, calculations show that it would result in approximately one additional truck trip annually within the unincorporated County area. However with the adoption of the proposed ordinance with the "Optional" language exempting food establishments from the store fee on single-use paper bags, approximately 38 additional truck trips would

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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be generated annually. No significant impact to impact is anticipated from project implementation under either scenario.

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not affect air traffic patterns or traffic levels. Therefore, no impact is anticipated from project implementation.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not increase transportation hazards. As a result, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in inadequate emergency access. Therefore, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. Cause an increase in parking demand which cannot be accommodated by existing parking facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an increase in parking demand. Therefore, no impact is anticipated from project implementation.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags.



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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No physical or land use changes are proposed; and therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the County General Plan for designated intersections, roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an increase in traffic that would exceed either individually or cumulatively the level of service standard established by the County General Plan for designated intersections, roads or highways. Therefore, no impact is anticipated from project implementation.

**J. NOISE**

Would the project result in:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an increase ambient noise levels. Therefore, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an increase in groundbourne vibration or groundborne noise levels. Therefore, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Exposure of persons to or generation of noise levels in excess of standards established in the General Plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**Discussion:** Per County policy, average hourly noise levels shall not exceed the General Plan threshold of 50 Leq during the day and 45 Leq during the nighttime. The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an increase in ambient noise levels. Therefore, no impact is anticipated from project implementation.

4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in a temporary or periodic increase in ambient noise levels. Therefore, no impact is anticipated from project implementation.

5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags for the entire unincorporated County. No physical or land use changes are proposed; and therefore, the proposed project would not expose people to excessive noise levels. Therefore, no impact is anticipated from project implementation.

6. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags for the entire unincorporated County. No physical or land use changes are proposed; and therefore, the proposed project would not expose people to excessive noise levels. Therefore, no impact is anticipated from project implementation.

**K. AIR QUALITY**

Where available, the significance criteria established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) may be relied upon to make the following determinations. Would the project:

1. Violate any air quality standard or

*Single-use Bag Reduction Ordinance*

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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contribute substantially to an existing or projected air quality violation?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags for the entire unincorporated County. No physical or land use changes are proposed. Although the North Central Coast Air Basin does not meet state standards for ozone and particulate matter (PM<sub>10</sub>), the proposed project would not contribute to PM<sub>10</sub> or ozone; and therefore would not violate any air quality standard or contribute substantially to an existing projected air quality violation.

2. Conflict with or obstruct implementation of the applicable air quality plan?

**Discussion:** The project would not conflict with or obstruct implementation of the regional air quality plan. See K-1 above. Therefore, no impact would occur.

3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags for the entire unincorporated County. No physical or land use changes are proposed; and therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutants. Therefore, no impact is anticipated from project implementation.

4. Expose sensitive receptors to substantial pollutant concentrations?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags for the entire unincorporated County. No physical or land use changes are proposed; and therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, no impact is anticipated from project implementation.

5. Create objectionable odors affecting a substantial number of people?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags for the entire unincorporated County. No physical or land use changes are proposed; and therefore, the proposed project would not create objectionable odors. Therefore, no impact is anticipated from project implementation.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**L. GREENHOUSE GAS EMISSIONS**

Would the project:

- |   |                          |                                     |                          |                          |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

**Discussion:**

**REGULATORY ENVIRONMENT**

**Federal**

***Federal Clean Air Act***

The Federal Clean Air Act (CAA) requires that federally supported activities must conform to the State Implementation Plan (SIP), whose purpose is that of attaining and maintaining the National Ambient Air Quality Standards (NAAQS). Section 176 (c) of the Federal CAA as amended in 1990, established the criteria and procedures by which the Federal Highway Administration (United States Code, Title 23), the Federal Transit Administrations (U.S. EPA 1996), and metropolitan planning organizations (MPOs) determine the conformity of federally funded or approved highway and transit plans, programs, and projects to SIPs. The provisions of Code of Federal Regulations, Title 40, Parts 51 and 93 apply in all non-attainment and maintenance areas for transportation-related criteria pollutants for which the area is designated non-attainment or has a maintenance plan.

The USEPA sets NAAQS. Primary standards are designed to protect public health, including sensitive individuals such as the children and the elderly, whereas secondary standards are designed to protect public welfare, such as visibility and crop or material damage. The Federal CAA requires the USEPA to routinely review and update the NAAQS in accordance with the latest available scientific evidence.

**State**

***California Clean Air Act***

The California CAA of 1988 requires all air-pollution control districts in the state to endeavor to achieve and maintain state ambient air quality standards by the earliest practicable date and to develop plans and regulations specifying how they will meet this goal. On April 2, 2007, the Supreme Court ruled in Massachusetts, et al. v. Environmental Protection Agency, et al. (549 U.S. 1438; 127 S. Ct. 1438) that the CAA gives the USEPA the authority to regulate emissions of GHGs, including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases, such as Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur hexafluoride (SF<sub>6</sub>), thereby legitimizing GHGs as air pollutants under the California CAA.

***Executive Order S-3-05***

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. Recognizing that California is particularly vulnerable to the impacts of climate change,

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Executive Order S-3-05 establishes statewide climate change emission reduction targets to reduce CO<sub>2</sub> equivalent (CO<sub>2</sub>e) to the 2000 level (473 million metric tons) by 2010, to the 1990 level (427 million metric tons of CO<sub>2</sub>e) by 2020, and to 80% below the 1990 level (85 million metric tons of CO<sub>2</sub>e) by 2050, California Business-as-usual Greenhouse Gas Emissions and Targets; California Climate Action Team 2006a). The executive order directs the Cal/EPA Secretary to coordinate and oversee efforts from multiple agencies (i.e., Secretary of the Business, Transportation and Housing Agency; Secretary of the Department of Food and Agriculture; Secretary of the Resources Agency; Chairperson of the Air Resources Board; Chairperson of the Energy Commission; and President of the Public Utilities Commission) to reduce GHG emissions to achieve the target levels. In addition, the Cal/EPA Secretary is responsible for submitting biannual reports to the governor and state legislature that outline 1) progress made toward reaching the emission targets, 2) impacts of global warming on California's resources, and 3) measures and adaptation plans to mitigate these impacts. To further ensure the accomplishment of the targets, the Secretary of Cal/EPA created a Climate Action Team made up of representatives from agencies listed above to implement global warming emission reduction programs and report on the progress made toward meeting the statewide GHG targets established in this executive order. In 2006, the first report was released and identified that "the climate change emission reduction targets [could] be met without adversely affecting the California economy," and "when all [the] strategies are implemented, those underway and those needed to meet the Governor's targets, the economy will benefit (California Climate Action Team 2006b)."

**Assembly Bill 32: Global Warming Solutions Act of 2006**

In September 2006, Governor Arnold Schwarzenegger signed into law the Global Warming Solutions Act, or Assembly Bill 32 (AB 32), which requires a statewide commitment and effort to reduce GHG emissions to 1990 levels by 2020 (25% below business-as-usual). This intended reduction in GHG emissions will be accomplished with an enforceable statewide cap on GHG emissions, which will be phased in 2012. To effectively implement the cap, AB 32 requires CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels from stationary sources.

This bill is the first statewide policy in the United States to mitigate GHG emissions and to include penalties for non-compliance. Consistent with goals and targets set by other actions taking place at the regional and international levels, AB 32 sets precedence in inventorying and reducing GHG emissions.

In passing AB 32, the state legislature acknowledged that global warming and related effects of climate change are a significant environmental issue, particularly the anthropogenic causes that are believed to be largely attributable to increased concentration of GHGs in the atmosphere.

**Executive Order S-20-06**

On October 17, 2006, Governor Arnold Schwarzenegger signed Executive Order S-20-06, which calls for continued efforts and coordination among state agencies on the

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implementation of GHG emission reduction policies and AB 32 and Health and Safety Code (Division 25.5) through the design and development of a market-based compliance program. In addition, Executive Order S-20-06 requires the development of GHG reporting and reduction protocols and a multi-state registry through joint efforts among CARB, Cal/EPA, and the California Climate Action Registry (CCAR). Executive Order S-20-06 directs the Secretary for Environmental Protection to coordinate with the Climate Action Team to develop a plan to create incentives for market-based mechanisms that have the potential of reducing GHG emissions.

**California Senate Bill 97**

Approved by Governor Arnold Schwarzenegger on August 24, 2007, Senate Bill (SB) 97 is designed to work in conjunction with the State CEQA Guidelines and AB 32. Pursuant to the State CEQA Guidelines, the Office of Planning and Research (OPR) is required to prepare for and develop proposed guidelines for implementation of CEQA by public agencies. Pursuant to AB 32, the CARB is required to monitor and regulate emission sources of GHGs that cause global warming in order to reduce GHG emissions. SB 97 states, "SB 97 requires OPR, by July 1, 2009, to prepare, develop, and transmit to the [CARB] guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption." As directed by SB 97, the Natural Resources Agency adopted amendments to the CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010.

In addition, OPR and CARB are required to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to AB 32. SB 97 applies to any environmental documents, including an Environmental Impact Report, a Negative Declaration, a Mitigated Negative Declaration, or other documents required by CEQA that have not been certified or adopted by the CEQA lead agency by the date of the adoption of the regulations.

**State of California Office of the Attorney General Guidance Letter on California Environmental Quality Act, Addressing Global Warming Impacts at the Local Agency Level**

On May 21, 2008, the California Office of the Attorney General provided guidance to public agencies on how to address global warming impacts in CEQA documents. In the publication entitled "*The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level*," the Office of the Attorney General directs public agencies to take a leadership role in integrating sustainability into public projects by providing 52 project-level mitigation measures for consideration in the development of projects (Office of Attorney General 2008). In addition, the Office of the Attorney General has negotiated four settlement agreements under CEQA, all of which require the project proponents to consider sustainable design for projects and feasible mitigation measures and alternatives to substantially lessen global warming related

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effects.

### ***State of California Office of Planning and Research Technical Advisory***

On June 19, 2008, the California OPR provided guidance on how to address climate change in CEQA documents. In the technical advisory, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, OPR issues technical guidance on how to perform GHG analyses in the interim before further state guidelines become available (California Governor's Office of Planning and Research 2008).

### **Regional**

#### ***Monterey Bay Unified Air Pollution Control District***

The proposed project is located within the North Central Coast Air Basin (Basin) that is under the jurisdiction of the MBUAPCD. The MBUAPCD is responsible for regulating stationary, indirect and area sources of pollution within the Basin. The MBUAPCD's jurisdiction includes Monterey, Santa Cruz and San Benito counties. The MBUAPCD is one out of 35 air quality management districts that have prepared Air Quality Management Plans (AQMPs) to accomplish the 5% annual reduction goal required by the California Clean Air Act (CCAA). The Basin is not in attainment of the California Ambient Air Quality Standards (CAAQS) for PM<sub>10</sub> and O<sub>3</sub>. The Basin is in attainment of all NAAQS.

The MBUAPCD's primary means of implementing air quality plans and policies is through adoption and enforcement of rules and regulations. Some of the key rules that may be applicable to the proposed project as they relate to landfill gas generation are discussed below:

- **Rule 437 (Municipal Solid Waste Landfills)** is intended to control emissions from existing Municipal Solid Waste Landfills as required under the provisions of the Federal Clean Air Act and regulations promulgated by USEPA at 40 CFR Part 60 Subpart Cc.
- **Rule 1010 (Air Toxic Control Measure for Stationary Compression Ignition Engines)** to reduce diesel particulate matter (PM) from stationary diesel-fueled compression ignition (CI) engines and consistent with California Health and Safety Code Section 39666(d) is a replacement rule for 17 California Code of Regulations Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines.

### **Local**

#### ***County of Santa Cruz General Plan***

The proposed Ordinance would be expected to be consistent with the County of Santa Cruz General Plan governing air quality and would not be expected to result in a change to the population growth assumption used by the AMBAG for attainment planning. The County of Santa Cruz General Plan has developed goals and policies for improving air quality in the county. Many policies are transportation-based because of the direct link between air quality and the circulation element. There is one objective

*Single-use Bag Reduction Ordinance*

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and one related policy relevant to the county's proposed Ordinance that is capable of contributing toward avoiding and reducing the generation of GHG emissions (County of Santa Cruz 1994):

- **Objective 5.18:** To improve air quality of Santa Cruz County by meeting or exceeding state and federal ambient air quality standards, protect county residents from the health hazards of air pollution, protect agriculture from air pollution induced crop losses and prevent degradation of the scenic character of the area.
- **Policy 5.18.9:** Greenhouse Gas Reduction – Implement state and federal legislation promoting the national goal of 35% reduction of carbon dioxide and other greenhouse gases by 2000.

**County of Santa Cruz Zero Waste Goal (Resolution No. 440.99)**

The County of Santa Cruz Board of Supervisors passed Resolution No. 440.99 on November 2, 1999. The resolution states, "The County of Santa Cruz hereby encourages the pursuit of zero waste as a long-term goal in order to eliminate waste and pollution in the manufacture, use, storage, and recycling of materials. This goal can be achieved through action plans and measures that significantly reduce waste and pollution. These measures will include encouragement of residents, businesses and agencies to judiciously use, reuse, and recycle materials, and motivation of businesses to manufacture and market less toxic and more durable, repairable, reusable, recycled, and recyclable products." The proposed Ordinance would be consistent with this resolution by encouraging the use of reusable shopping bags, eliminating the distribution of single-use plastic carryout bags, and placing a store charge on single-use paper carryout bags to discourage their use.

**Climate Action Planning**

The County of Santa Cruz is currently working with the Association of Monterey Bay Area Governments (AMBAG) and ICLEI (Local Governments for Sustainability) to prepare the greenhouse gas emissions inventories for both the municipality (county operations) and the community-wide (all unincorporated areas in Santa Cruz County) inventories. Following the completion of the greenhouse gas inventories in December 2010, the county will begin preparation of a Climate Action Plan.

**EXISTING CONDITIONS**

**North Central Coast Air Basin**

The Basin, which is just south of the San Francisco Bay Area Air Basin, covers an area of 5,159 square miles and consists of the counties of Santa Cruz, San Benito, and Monterey. Westerly winds predominate in all seasons, but are strongest and most persistent during the spring and summer months. The extent and severity of the air pollution problems in the Basin are a function of the area's natural physical characteristics (weather and topography), as well as human created influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall and topography all affect the accumulation and/or dispersion of



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pollutants throughout the Basin area. In general, air pollution potential of the coastal areas is relatively low due to persistent winds. The Basin is, however, subject to temperature inversions that restrict vertical mixing of pollutants and the warmer inland valleys of the Basin have a high pollution potential.

### Global Climate Change Gases

The natural process through which heat is retained in the troposphere is called the “greenhouse effect.” The greenhouse effect traps heat in the troposphere through a three fold process as follows: shortwave radiation emitted by the sun is absorbed by the earth; the earth emits a portion of this energy in the form of longwave radiation; and greenhouse gases in the upper atmosphere absorb this longwave radiation and emit this longwave radiation both into space and back toward earth. This “trapping” of the longwave (thermal) radiation emitted back toward the earth is the underlying process of the greenhouse effect.

The most abundant greenhouse gases are water vapor and carbon dioxide. While many other trace gases have greater ability to absorb and re-radiate longwave radiation, these gases are not as plentiful in the atmosphere. For this reason, and to gauge the potency of greenhouse gases, scientists have established a Global Warming Potential for each greenhouse gas based on its ability to absorb and re-radiate long-wave radiation. The Global Warming Potential of a gas is determined using carbon dioxide as the reference gas with a Global Warming Potential of 1. The principal greenhouse gases that enter the atmosphere because of human activities are:

- **Carbon Dioxide (CO<sub>2</sub>):** Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle. This gas has a global warming potential of 1.
- **Methane (CH<sub>4</sub>):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills. This gas has a global warming potential of 21.
- **Nitrous Oxide (N<sub>2</sub>O):** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste. This gas has a global warming potential of 310.
- **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases (“High GWP gases”) (U.S. EPA 2010). These gases

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have global warming potentials as high as 23,900.

## IMPACTS

### Thresholds of Significance

For the purposes of this Initial Study, a global climate change impact is considered significant if the project would:

- generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

### Greenhouse Gas Emissions Discussion

Various life cycle assessments (LCAs) of single-use carryout bags have been completed in support of bag regulation policies worldwide. Most LCAs try to account for greenhouse gas emissions that result from all stages of product life, from product creation to disposal. LCAs do not have consistent methodologies, and frequently use assumptions that differ from each other, and from local conditions. One example is the assumption that some percentage of single-use bags in the waste stream would be incinerated in a waste-to-energy system. Other than wood chips sold as fuel, waste in the County of Santa Cruz is never incinerated because there is no municipal solid waste incinerator in the area. Including it in a discussion of paper and plastic bags is, therefore, not relevant. This discussion of impacts does not, therefore, rely on the various LCAs for any purpose other than as a point of comparison.

According to some LCAs prepared by consultants to the plastic bag industry, single-use paper bags generally result in greater greenhouse gas emissions when compared to single-use plastic bags and reusable bags. This is attributed to several factors, including the manufacturing process and the effect of paper bag weight and bulk on the transportation process, plus the eventual degradation of paper bags in landfills. The findings from other LCAs seem to differ depending on the study, and no comprehensive comparison of the studies has been made by a neutral third party. In addition, no LCA was found that looked at the emissions associated with the manufacture of 40% or 100% recycled content paper bags.

Additionally, heavier single-use plastic bags made of LDPE, which are often used by clothing and boutique stores, were found by some studies to result in greater greenhouse gas emissions than both single-use paper bags and single-use plastic bags made of HDPE, which are most typically used by grocery stores and large format retail stores.

There is a quantity of energy required to deliver all types of single-use bags to the stores where they are given away, and further energy use associated with picking up those that end up as litter, and with removing those that are discarded as solid waste. Because the county was unable to identify any delivery system dedicated only to distribution to users of plastic (or paper) single-use bags, the exact increment of energy use, and the resulting greenhouse gas emissions, associated with their delivery

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to the location where they are given to the public is unknown.

For the purposes of this Initial Study, the County of Santa Cruz is assuming that single-use plastic bags currently distributed to the customers of businesses in the unincorporated areas of Santa Cruz County total approximately 138,000 plastic bags per day (see Attachment 2). Under the proposed Ordinance (§5.48.015(2)), single-use plastic carryout bags would be reduced to zero.

**Greenhouse Gas Emissions Impacts**

It has been suggested by opponents that ordinances proposing the ban of single-use plastic carryout bags would lead to an increase in single-use paper bag use, because consumers would be willing to pay the store charge to use paper bags. An increase in single-use paper bag use could then lead to incremental increases in gas emissions associated with their manufacture and delivery. Of course, a substantial decrease in greenhouse gas emissions associated with the elimination of plastic bag manufacturing and delivery to the county would be occurring simultaneously. Based on available information, it cannot be definitively determined what the net increases or decreases in greenhouse gas emissions would be from the proposed ordinance.

Although programs to eliminate or reduce single-use disposable bags have been implemented all over the world, there are variations in the programs. The most well known example is the country of Ireland, which placed a charge on single-use plastic carryout bags in 2002. As a result of the charge, the use of single-use plastic bags was reduced by 90% almost immediately. Additionally, surveys completed in 2003 indicated that approximately 90% of consumers were using reusable bags, so it does not appear that there was a dramatic shift to paper bag use. Individual stores in Australia and Canada that charge for single-use plastic bags have experienced reductions of 83 and 97%, respectively. In recent follow-up to a charge on single-use carryout bags enacted in the District of Columbia, a \$0.05 charge for all single-use bags resulted in an immediate substantial reduction in their use during the first month. District staff estimates that the reduction is in the 50-80% range for both paper and plastic single-use carryout bags (Weise 2010).

Taiwan introduced its “Restricted Use Policy on Plastic Shopping Bags” in 2002. The policy does not mandate a particular level of levy. Retailers have the ability to set and retain the levy per plastic bag. Before the introduction of the levy, the plastic shopping bag usage in Taiwan was about 2.5 bags/person/day. After the introduction of the levy, the plastic shopping bag usage dropped by 80% in the first year, but slightly rebounded subsequently (Hong Kong Legislative Council, 2009).

A survey of residents of the City of San Jose, California conducted in the spring/summer of 2010 did indeed verify that a higher charge on single-use paper bags and a ban on single-use plastic bags would increase customers’ use of reusable bags. But the survey also identified a very high level of initial participation even with a \$0.10 charge. Of those responding to the survey, 81% indicated they would bring reusable bags for shopping if plastic bags were banned and recycled content paper bags cost \$0.10. With a \$0.25 charge on paper bags, 90% of the survey respondents would bring reusable bags (City of San Jose, 2010). This supports the County’s assumptions

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in drafting the proposed ordinance that the environmentally aware citizens of Santa Cruz County would respond positively to the proposed ordinance. Based on these results, it is anticipated that the number of single-use paper bags used in the unincorporated County may be substantially reduced when a store charge is imposed.

Since single-use paper bags sold to consumers would be required to have at least 40% recycled content under the proposed ordinance, the total quantity of greenhouse gas emissions resulting from a change from a plastic to a paper bag may not increase substantially because manufacture of paper using recycled content results in less greenhouse gas emissions than bags manufactured using virgin material (Environmental Defense Fund, 2010). In addition, paper bags used in grocery stores are larger than the HDPE plastic bags and would require fewer bags for more merchandise.

To arrive at estimates of potential impacts, three pieces of information are needed: (1) the current number of single-use paper and plastic bags used in unincorporated areas of Santa Cruz county; (2) the future number of single-use paper and plastic bags used as a result of the proposed ordinance; and (3) the per-bag impacts as reported in the Boustead LCA (2007). It is estimated that currently there are approximately 50 million single-use plastic bags and approximately 12 million single-use paper bags used in the unincorporated areas of Santa Cruz county every year. Using the behavior change estimates described above and in the Herrera report, it is estimated that with the ban on plastic bags and a \$0.10 charge on paper bags, 65% of people would use reusable bags or no bag, and 35% of people would use paper bags. Using these percentages, it is possible to estimate the number of bags that would be used in the unincorporated areas of the county.

For paper bags, the size ratio compared to plastic bags is important to consider when estimating the effect of consumers switching from plastic bags to paper bags. There are a variety of bag sizes for both types of single-use carryout bags. The most commonly used of each type are summarized in Table 4 as small plastic, large plastic, small Kraft paper and large Kraft paper. All of these bags are currently used in the unincorporated areas of Santa Cruz county. For example: the small paper and small plastic bags are presently distributed by Safeway and Home Depot; the large paper bags are distributed by Deluxe Foods and New Leaf Community Markets; and the large plastic bags are distributed at Toys R Us. The size ratio of all for sizes of bags is summarized in Table 4.

The bags evaluated in the Boustead LCA were the large plastic and Large Kraft paper bags. Boustead assumed that everyone used the same size bags. It becomes very difficult to estimate the number and size plastic bags that would be replaced by the number and size paper bags. Since the larger grocery store chains use the smaller plastic bags. It is likely that most of the estimated 50 million plastic carryout bags currently used annually in the County are the smaller size since most of the grocery stores that provide the larger capacity paper bags do not currently offer single-use plastic carryout bags as an option.

Since it is not possible to predict how many of which size paper bags might be

Potentially Significant Impact      Less than Significant with Mitigation Incorporated      Less than Significant Impact      No Impact

purchased in the future, this discussion assumes that any additional number of single-use carryout paper bags would replace single-use plastic bags at a conservative ratio of 1.5:1 rather than 2:1, compared to the number of single-use plastic carryout bags presently used by the same customers. However, it should also be noted that when customers are paying for bags, they may insist on the larger Kraft paper bags, which could also influence their willingness to pay for the smaller bags, making the larger ratio (2:1) more appropriate. Therefore, an increase of approximately 5 million additional single-use paper carryout bags annually within the unincorporated County would be a conservative estimate.

Table 4 Capacities of Common Single-Use Bags		
Bag	Tennis Balls	Capacity
Small Plastic: HDPE <sup>2</sup> Plastic (Safeway and Home Depot)	57	1
Large Plastic: LDPE <sup>3</sup> Plastic (Toys R Us)	70	1.2
Small Paper: Kraft Paper 14x12x7 (Safeway)	86	1.5
Large Paper: Kraft Paper 17x12x7 (Deluxe Market)	114	2
Notes: 1. Capacities are relative to that of the Small Plastic Bag, which is considered to have a baseline capacity of one. 2. HDPE = High-density Polyethylene 3. LDPE = Low-density Polyethylene Sources: City of San Jose 2010 and County of Santa Cruz 2010.		

In addition, Table 2 summarizes the findings of the streamlined environmental assessment of shopping bag alternatives conducted by Hyder (2007). A rating of one to five was used to show the diversity of impacts for each of the criteria, with one being the lowest impact. Table 2 shows that the life cycle of single-use HDPE bags result in slightly higher greenhouse gas emissions than reusable cloth bags, and substantially fewer than single-use Kraft paper and single-use LDPE plastic bags (Hyder 2007).

However, using the methodology described earlier, the data from Boustead (2007) shows that there would be an annual reduction in greenhouse gas emissions of 372 tons of CO<sub>2</sub> equivalent compared to existing conditions with the elimination of carryout plastic bag use and the anticipated minor increase of Kraft paper bag use combined with reusable bag use (see Table 5). With the inclusion of the "Optional" language exempting approximately 85 food establishments from the store charge on paper bags, the annual reduction in greenhouse gas emissions would be reduced to approximately 205 tons of CO<sub>2</sub> equivalent compared to existing conditions. The subsequent increase from \$0.10 to \$0.25 proposed by the ordinance would likely result in the further reduction of single-use paper bag use, which would further reduce CO<sub>2</sub> equivalent emissions. In addition, the proposed ordinance would require that retail establishments keep annual records of paper bag distribution to be made available to the Director of Public Works, or designee upon request. The records would be evaluated annually for the first five years by the County to ensure the effectiveness of the ordinance. If it is determined that single-use paper bag use has increased beyond the anticipated levels, the Board of Supervisors may consider increasing the store

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charge to improve the effectiveness of the ordinance.

Type of Single-use Shopping Bag	Estimated Number of Shopping Bags Used Annually Under Existing Conditions	Estimated Number of Shopping Bags Used Annually Under Proposed Ordinance	Estimated Number of Shopping Bags Used Annually Under Proposed Ordinance "Optional"	Change in Annual CO <sub>2</sub> Equivalent Emissions Under Proposed Ordinance	Change in Annual CO <sub>2</sub> Equivalent Emissions Under Proposed Ordinance "Optional"
High-density Polyethylene (HDPE) Plastic Bag	50,000,000	(50,000,000) <sup>2</sup>	(50,000,000) <sup>2</sup>	(1,175 tons) <sup>3</sup>	(1,175 tons) <sup>3</sup>
Kraft Paper Bag	12,000,000	17,000,000	23,000,000	719 tons <sup>3</sup>	929 tons <sup>3</sup>
Reusable Bag	19,000 <sup>4</sup>	356,000	356,000	41 tons <sup>5</sup>	41 tons <sup>5</sup>
<b>Total Paper and Plastic</b>	<b>62,000,000</b>	<b>(33,000,000)</b>	<b>(27,000,000)</b>	<b>(372 tons)</b>	<b>(205 tons)</b>

Notes:

- Annual change in greenhouse gas emissions (shown as CO<sub>2</sub> equivalent) is based on the entire lifecycle of the bags beginning with the raw materials for production through the product's end of life.
- Approximately 50,000,000 polyethylene plastic bags provide the equivalent capacity of 37,500,000 Kraft paper bags. This assumes that paper bags would replace plastic bags at a ratio of 1 paper bag for every 1.5 plastic bags based on their capacity.
- Tons calculated using methodology provided by Boustead (2007).
- The actual number of reusable shopping bags is unknown and greater than zero. Therefore, a 5% figure has been used as a conservative estimate.
- This number assumes that each reusable shopping bag is reused a total of 100 times annually, or twice per week prior to recycling or disposal. Total CO<sub>2</sub> equivalent per 1,000 reusable shopping bags used is 0.1146 tons (AEA Technology 2005)

Source: County of Santa Cruz 2011.

It should also be noted that a methane gas collection system currently in place at the Buena Vista landfill has been designed to capture a minimum of 75% of all landfill gas (a CO<sub>2</sub> equivalent of 21) generated through decomposition (ICLEI 2008). The collected landfill gas (composed of approximately 50-55% methane and 40-45% carbon dioxide; U.S. EPA 2000) is then burned at the cogeneration plant to produce electricity, releasing only CO<sub>2</sub>. As a result, those single-use Kraft paper bags that do become landfilled at the Buena Vista Landfill would result in the release of much lower levels of CO<sub>2</sub> equivalents than suggested in the 2007 Boustead study.

The elimination of single-use plastic carryout bags used daily in the unincorporated County would result in a decrease in the shipping capacity needed to transport those bags to their regional distribution centers and eventually to stores. Since the bags are generally transported to users in mixed loads (groceries and non-food items, etc.), there may be no reduction in trips. Capacity in the trucks may be used to transport reusable bags offered for sale in the stores, or other commodities handled by the distributor.

Even if it were assumed that bags would be transported in discrete truckloads, it would require approximately 22 truck trips (each carrying 24 pallets x 48 cases) to transport 50,000,000 HDPE shopping bags. Under the proposed ordinance, these trips would be eliminated. However, there would be an estimated annual demand for an additional 5,000,000 Kraft paper bags from existing conditions. This would require an additional

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23 truck trips (each carrying 23 pallets x 18 cases) to transport the estimated 5,000,000 Kraft paper shopping bags. This would result in one additional truck trips annually under the proposed ordinance.

Under the "Optional" scenario exempting food establishments from the store charge on paper bags, there would be an estimated annual demand for an additional 13,000,000 Kraft paper bags from existing conditions. This would require an additional 60 truck trips (each carrying 23 pallets x 18 cases) to transport the estimated 13,000,000 Kraft paper shopping bags. This would result in 38 additional truck trips annually under the "Optional" scenario.

**To ensure a reduction in greenhouse gasses is the result following adoption and implementation of the ordinance, it is vital that reusable carryout bags are made available and used at County of Santa Cruz retailers. To ensure this reduction, the following mitigation shall be implemented:** *The County will work with retailers and members of the community to increase the availability and use of reusable carryout bags. The County is currently a member of the Central Coast Recycling Media Coalition (CCRMC), which coordinates education and outreach for numerous cities and counties in the Monterey Bay Area. The County of Santa Cruz Department of Public Works will continue to contribute a minimum of \$10,000 per year to CCRMC in support of ongoing programs promoting the use of reusable shopping bags. Bag use would be reduced even further when the store charge for single-use paper bags is raised to \$0.25 one year after implementation.*

Project impacts from greenhouse gas emissions would be less than significant with the implementation of the required mitigation.

2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**Discussion:**

The proposed County of Santa Cruz Single-use Bag Ordinance would be consistent with the following policies and regulations adopted for the purposes of reducing greenhouse gas emissions.

**Executive Order S-3-05**

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. Recognizing that California is particularly vulnerable to the impacts of climate change, Executive Order S-3-05 establishes statewide climate change emission reduction targets to reduce CO<sub>2</sub> equivalent (CO<sub>2</sub>e) to the 2000 level (473 million metric tons) by 2010, to the 1990 level (427 million metric tons of CO<sub>2</sub>e) by 2020, and to 80% below the 1990 level (85 million metric tons of CO<sub>2</sub>e) by 2050, California Business-as-usual Greenhouse Gas Emissions and Targets; Climate Action Team 2006a). The proposed ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 372 tons (see Table 5). Under the "Optional" scenario exempting the store charge on

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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paper bags for food establishments, the ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 205 tons annually (see Table 5).

**AB 32 – Global Warming Solutions Act of 2006**

In September 2006, Governor Arnold Schwarzenegger signed into law the Global Warming Solutions Act, or Assembly Bill 32 (AB 32), which requires a statewide commitment and effort to reduce GHG emissions to 1990 levels by 2020 (25% below business-as-usual). This intended reduction in GHG emissions will be accomplished with an enforceable statewide cap on GHG emissions, which will be phased in 2012. The proposed Ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 372 tons (see Table 5). Under the “Optional” scenario exempting the store charge on paper bags for food establishments, the ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 205 tons annually (see Table 5).

**Monterey Bay Unified APCD (Rule 437)**

Rule 437 (Municipal Solid Waste Landfills) intended to control emissions from existing municipal solid waste landfills as required under the provisions of the Federal Clean Air Act and regulations promulgated by USEPA at 40 CFR Part 60 Subpart Cc. Although the proposed ordinance may result in a slight increase in greenhouse gas emissions resulting from the anticipated minor increase in paper bag use (approximately 5.5 million bags annually), the net annual reduction of greenhouse gas emissions (CO<sub>2</sub> equivalent) would be 372 tons (see Table 5). Under the “Optional” scenario exempting the store charge on paper bags for food establishments, the ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 205 tons annually (see Table 5).

**County of Santa Cruz General Plan**

- **Objective 5.18:** “To improve air quality of Santa Cruz County by meeting or exceeding state and federal ambient air quality standards, protect county residents from the health hazards of air pollution, protect agriculture from air pollution induced crop losses and prevent degradation of the scenic character of the area.” The proposed Ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 372 tons (see Table 5). Under the “Optional” scenario exempting the store charge on paper bags for food establishments, the ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 205 tons annually (see Table 5).
- **Policy 5.18.9:** “Greenhouse Gas Reduction – Implement state and federal legislation promoting the national goal of 35% reduction of carbon dioxide and other greenhouse gases by 2000.” The proposed Ordinance would reduce greenhouse gas emissions (CO<sub>2</sub> equivalent) by a minimum of 372 tons (see Table 5). Under the “Optional” scenario exempting the store charge on paper bags for food establishments, the ordinance would reduce greenhouse gas



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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emissions (CO<sub>2</sub> equivalent) by a minimum of 205 tons annually (see Table 5).

**County of Santa Cruz Zero Waste Goal (Resolution No. 440.99)**

The County of Santa Cruz Board of Supervisors passed Resolution No. 440.99 on November 2, 1999. The resolution states, "The County of Santa Cruz hereby encourages the pursuit of zero waste as a long-term goal in order to eliminate waste and pollution in the manufacture, use, storage, and recycling of materials. This goal can be achieved through action plans and measures that significantly reduce waste and pollution. These measures will include encouragement of residents, businesses and agencies to judiciously use, reuse, and recycle materials, and motivation of businesses to manufacture and market less toxic and more durable, repairable, reusable, recycled, and recyclable products." The proposed Ordinance would be consistent with this resolution by encouraging the use of reusable shopping bags, eliminating the distribution of single-use plastic carryout bags, and placing a store charge on single-use paper carryout bags to discourage their use.

**County of Santa Cruz Climate Action Planning**

The proposed Ordinance, unlike most development projects, would result in the reduction of greenhouse gas emissions through the ban on distributing an estimated 50,000,000 HDPE plastic shopping bags annually within the unincorporated County of Santa Cruz. At this time, Santa Cruz County is in the process of developing a Climate Action Plan (CAP) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under AB 32 legislation. Until the CAP is completed, there are no specific standards or criteria to apply to this proposal. However, only beneficial effects to green house gas emissions would be expected from this proposal.

**M. PUBLIC SERVICES**

Would the project:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a. Fire protection?

b. Police protection?

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks or other recreational activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities; including the maintenance of roads?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion (a through e):** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an impact to public services. Therefore, no impact is anticipated from project implementation.

**N. RECREATION**

Would the project:

1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	-------------------------------------

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an increase in the use of parks or other recreational facilities. Therefore, no impact is anticipated from project implementation.

2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not require the construction or expansion of recreational facilities. Therefore, no impact is anticipated from project implementation.

**O. UTILITIES AND SERVICE SYSTEMS**

Would the project:

1. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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significant environmental effects?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not require the construction or expansion of storm water drainage facilities. Therefore, no impact is anticipated from project implementation.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not require the construction or expansion of water or wastewater facilities. Therefore, no impact is anticipated from project implementation.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in an exceedance of wastewater treatment requirements. Therefore, no impact is anticipated from project implementation.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. | Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not require additional water supplies or expanded entitlements. Therefore, no impact is anticipated from project implementation.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. | Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not generate additional wastewater requiring additional capacity. Therefore, no impact is anticipated from project implementation.

6. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not generate additional solid waste necessitating an increase in landfill capacity. Therefore, no impact is anticipated from project implementation.

7. Comply with federal, state, and local statutes and regulations related to solid waste?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not generate additional solid waste necessitating an increase in landfill capacity. The proposed project may actually reduce the amount of solid waste generated in the county through the increased use of reusable carryout bags and the reduction of disposable paper and plastic carryout bags. Therefore, no adverse impact is anticipated from project implementation.

**P. LAND USE AND PLANNING**

Would the project:

1. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not conflict with any regulations or policies adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project would be consistent with the following General Plan Policies.

Policy 5.3.1: Support the Monterey Bay Sanctuary (LCP)

“Support the mission of the Monterey Bay National Marine Sanctuary to facilitate the long-term management, protection, understanding and awareness of its resources and

*Single-use Bag Reduction Ordinance*

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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qualities.”

Policy 5.4.1: Protecting the Monterey Bay National Marine Sanctuary from Adverse Impacts (LCP)

“Prohibit activities which could adversely impact sensitive habitats of the Monterey Bay National Marine Sanctuary, including the discharge of wastes and hazardous materials. The main sources of concern are wastewater discharge, urban runoff, and toxic agricultural drainage water, including that originating outside of Santa Cruz County, and the accidental release of oil or other hazardous material from coastal tanker traffic.”

**Monterey Bay National Marine Sanctuary**

The MBNMS, designated in 1992, is a federally protected marine area offshore of California’s central coast (see Figure 6). Stretching from Marin County to Cambria, the MBNMS encompasses a shoreline length of 276 miles and 5,322 square miles of ocean, extending an average distance of 25 miles from shore. At its deepest point, the MBNMS reaches down 10,663 feet (more than two miles). The MBNMS encompasses a range of habitats from sandy beaches to rocky intertidal areas to open ocean, as well as the nation’s largest kelp forest and submarine canyon. Its highly productive biological communities host one of the highest levels of marine biodiversity in the world, including twenty-six threatened and endangered species. The MBNMS is adjacent to one of the largest urban concentrations in North America with several population centers of approximately eight million people living within 50 miles of its shoreline, many who rely on MBNMS resources for pleasure or work.

**The National Marine Sanctuaries Act**

The National Marine Sanctuaries Act, as amended, (NMSA) (16 U.S.C. §1431 et seq.) is the law that governs the National Marine Sanctuaries Program (NMSP). The NMSA authorizes the Secretary of Commerce to designate as national marine sanctuaries areas of the marine environment or Great Lakes with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or aesthetic qualities. Additionally, the NMSA established the NMSP as the federal program charged with managing national marine sanctuaries. The primary objective of the NMSA is to protect marine resources. The NMSA also directs the NMSP to facilitate all public and private uses of those resources compatible with the primary objective of resource protection.

The purposes and policies of the Monterey Bay National Marine Sanctuary Act are:

1. To identify and designate as national marine sanctuaries areas of the marine environment which are of special national significance and to manage these areas as the National Marine Sanctuaries Program;
2. To provide authority for comprehensive and coordinated conservation and management of these marine areas, and activities affecting them, in a manner that complements existing regulatory authorities;
3. To maintain the natural biological communities in the national marine sanctuaries, and to protect, and, where appropriate, restore and enhance

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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natural habitats, populations, and ecological processes;

4. To enhance public awareness, understanding, appreciation, and wise and sustainable use of the marine environment, and the natural, historical, cultural, and archeological resources of the National Marine Sanctuaries Program;
5. To support, promote, and coordinate scientific research on, and long-term monitoring of, the resources of these marine areas;
6. To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities;
7. To develop and implement coordinated plans for the protection and management of these areas with appropriate federal agencies, state and local governments, Native American tribes and organizations, international organizations, and other public and private interests concerned with the continuing health and resilience of these marine areas;
8. To create models of, and incentives for, ways to conserve and manage these areas, including the application of innovative management techniques; and
9. To cooperate with global programs encouraging conservation of marine resources.

The proposed project would contribute to the protection of both aesthetic and aquatic resources, resulting in fewer plastic and paper carryout bags collecting in wetland and riparian areas, and within the marine environment. Therefore, the proposed project would be consistent with both the County of Santa Cruz General Plan policies and the National Marine Sanctuaries Act. As a result, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not conflict with any applicable conservation plan. A reduction of single use paper and plastic bags released into the environment would be considered a beneficial effect of the proposed project. Therefore, no adverse impact is anticipated from project implementation.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not physically divide an established community. Therefore, no impact is anticipated from project implementation.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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**Q. POPULATION AND HOUSING**

Would the project:

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags and would not induce population growth within the unincorporated county. The proposed project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in the area including, but not limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multi-family use; or regulatory changes including General Plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations; or Local Agency Formation Commission annexation actions. Therefore, no impact is anticipated from project implementation.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not displace any existing housing. Therefore, no impact is anticipated from project implementation.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed Ordinance regulates single-use plastic and paper bags. No physical or land use changes are proposed; and therefore, the proposed project would not result in the displacement of people. Therefore, no impact is anticipated from project implementation.

**R. MANDATORY FINDINGS OF SIGNIFICANCE**

- |   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant Impact | No Impact                           |
|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| 1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**Discussion:** The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in Section III-C of this Initial Study. No biological resources would be impacted by implementation of the proposed Ordinance. The proposed Ordinance would result in beneficial effects from the reduction of single-use plastic bags being released into the environment. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

- |  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant Impact | No Impact                           |
|--|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| 2. Does the project have impacts that are individually limited, but cumulatively considerable? (“cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**Discussion:** In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. Although the potential exists for significant cumulative impacts from greenhouse gas emissions following project approval and implementation, proposed mitigation measures to track and report paper bag use at the retail level and increase public education and outreach would ensure that paper bag use is reduced below anticipated levels, resulting in an



overall reduction of greenhouse gas emissions. As a result of this evaluation, there were determined to be no significant cumulative effects, and no substantial evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

- |   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant Impact | No Impact                           |
|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| 3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**Discussion:** In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in contained within Section III. As a result of this evaluation, there is no substantial evidence that there would be adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

**IV. TECHNICAL REVIEW CHECKLIST**

	<b><u>REQUIRED</u></b>	<b><u>DATE COMPLETED</u></b>
Agricultural Policy Advisory Commission (APAC) Review	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Archaeological Review	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Biotic Report/Assessment	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Geologic Hazards Assessment (GHA)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Geologic Report	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Geotechnical (Soils) Report	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Riparian Pre-Site	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Septic Lot Check	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____
Other:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	_____

## **V. REFERENCES USED IN THE COMPLETION OF THIS ENVIRONMENTAL REVIEW INITIAL STUDY**

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<http://www.epa.gov/climatechange/emissions/index.html>

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Personal communication with Barry Weise, J.D., Legislative & Regulatory Analyst for the District of Columbia Department of the Environment, by the City of San Jose. June 2, 2010.

**VI. ATTACHMENTS**

1. County of Santa Cruz Board Letter dated, April 1, 2010 to *Consider Proposed Addition of Chapter 5.48 to the Santa Cruz County Code Regarding Reducing the Consumption of Single-use Plastic Bags within the County.*
2. Estimated Daily Single-use Bag Demand for the Unincorporated County of Santa Cruz, October 2010. Prepared by the County of Santa Cruz Planning Department.

**ATTACHMENT 1**

**SINGLE-USE BAG REDUCTON ORDINANCE**

**ORDINANCE ADDING CHAPTER 5.48 TO SANTA CRUZ COUNTY CODE  
RELATING TO THE REDUCTION OF SINGLE-USE PLASTIC AND PAPER  
CARRYOUT BAGS**

ORDINANCE NO. \_\_\_\_\_

**ORDINANCE ADDING CHAPTER 5.48 TO SANTA CRUZ COUNTY CODE  
RELATING TO THE REDUCTION OF SINGLE USE PLASTIC AND PAPER  
CARRYOUT BAGS**

The Board of Supervisors of the County of Santa Cruz ordains as follows:

**SECTION I**

Chapter 5.48 of the Santa Cruz County Code is enacted to read as follows:

**SINGLE-USE BAG REDUCTION ORDINANCE**

**Sections:**

- 5.48.010 Purpose and Findings.**
- 5.48.015 Definitions.**
- 5.48.020 Ban on Plastic Carryout Bags and Store Charge for Other Single-Use Carryout Bags.**
- 5.48.025 Implementation.**
- 5.48.030 Exemptions Allowing Single Use Bags.**
- 5.48.035 Enforcement.**
- 5.48.040 Violations.**
- 5.48.045 Severability.**
- 5.48.050 Effective Date.**
- 5.48.055 No Conflict with Federal or State Law.**
- 5.48.060 Preemption.**
- 5.48.010 PURPOSE AND FINDINGS.**

- A. It is the intent of the County of Santa Cruz, in enacting Chapter 5.48 to eliminate the common use of plastic single-use carryout bags, encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general.
- B. Whereas the County of Santa Cruz has an obligation to protect the environment, the economy and public health, and the County of Santa Cruz has a 75 percent waste reduction goal by 2010, which is to be reached by waste reduction, reuse, recycling, and composting, the County of Santa Cruz makes the following findings:
  - 1. Globally, and estimated 500 billion to 1 trillion petroleum-based plastic bags are used each year, which equals over one million per minute, the production and use of which uses over 12 million barrels of oil. The California Integrated Waste Management Board estimates that Californians use nearly 20 billion single-use plastic bags per year and discard over 100 plastic bags per second. Further, the Environmental Protection Agency estimates that only 5 percent of the plastic bags in California and nationwide are currently recycled.



2. The production and disposal of plastic bags have caused significant environmental impacts, including contamination of the environment, the deaths of thousands of marine animals through ingestion and entanglement, widespread litter and debasement of the urban environment, and increased waste disposal costs.
3. Most plastic carryout bags do not biodegrade, but instead persist in the environment for hundreds of years. Rather than breaking down, they slowly break up through abrasion, tearing, and photo degradation into toxic plastic bits that contaminate soil and water, while entering the food web when animals inadvertently ingest these materials. Toxic substances present in plastics are known to cause death or reproductive failure in fish, shellfish, wildlife, and in the humans ingesting the fish.
4. Plastic bits absorb dangerous compounds such as dichlorodiphenyldichloroethylene (DDE), Polychlorinated Biphenyl (PCB), and other toxic materials present in ocean water. Plastics have been found to concentrate these toxic chemicals at levels of up to one million times the levels found in seawater. Plastic bits have displaced plankton in the Pacific Gyre.
5. The U.S. Marine Mammal Commission estimates that 257 marine species have been reported entangled in or having ingested marine debris. Plastic can constrict the animals' movements or block their digestive system, killing the animals through starvation, exhaustion, or infection from deep wounds caused by tightening material.
6. According to Save Our Shores, a Santa Cruz based marine conservation nonprofit that conducts beach, river, and inland cleanups in the coastal regions of Santa Cruz, San Mateo, and Monterey County; from June 2007 to March 2010 they conducted 395 cleanups where volunteers removed a total of 19,080 plastic bags. Unchecked, this material would have likely entered the marine environment of the Monterey Bay National Marine Sanctuary.
7. Plastic bags returned to supermarkets may be recycled into plastic lumber; however, a very low percentage of bags are actually returned. Recycling bags into lumber does not reduce the impact of making new plastic carryout bags.
8. Compostable plastic carryout bags, are currently manufactured, do not solve the problems of wildlife damage, litter, or resource use addressed by the proposed ordinance. Compostable carryout are designed to remain intact until placed in a professional compost facility, so they do not degrade quickly as litter or in a marine

environment. Producing compostable bags consumes nearly as much fossil fuel as non-compostable bags. Mixing compostable bags with regular plastic bags prevents recycling or composting either of them. Therefore, there is no exemption in the proposed ordinance for compostable carryout bags.

9. According to Californians Against Waste, Californians pay up to \$200 per household each year in state and federal taxes to clean up litter and waste associated with single-use bags, on top of the \$40 per household per year in hidden grocery costs to offset the expense to nearly 1,000 “free” bags received from grocers.
10. Reusable bags are readily available from numerous sources and vendors. Many grocery and other retail establishments throughout the County of Santa Cruz already offer reusable bags for sale at a price as low as 25 cents.
11. The proposed ordinance recognizes that there are energy and environmental consequences of using paper bags. While paper bags do not have the end of use impacts of plastic bags, they may use comparable or more energy and resources to manufacture. For this reason, a store charge on paper bags is indicated, as an incentive to reduce their use and encourage reusable bags. Paper bags that contain a minimum of 40% post consumer recycled content have fewer negative impacts than virgin paper bags.
12. Paper shopping bags with 40% post consumer recycled content are easily available, and such bags are widely used by County of Santa Cruz merchants.
13. State law currently prohibits local jurisdictions from charging for single-use carryout plastic bags. Therefore, several California Cities have adopted or are pursuing a ban as the most effective remaining means to eliminate the impacts these plastic bags cause. State law does not prohibit jurisdictions from charging for paper bags.

**5.48.015**     **DEFINITIONS.**

- A. For the purposes of this Chapter, the following definitions apply:
  1. “Carryout bags” means bags provided by retailers to customers at the point to sale to hold customers’ purchases. “Carryout bags” do not include bags used to contain loose items prior to checkout, such as meat, produce and bulk goods, and does not include prepackaged products.
  2. “Single-use plastic bag” or “single-use plastic carryout bag” means a single-use carryout bag of any size that is made from plastic and

provided at point of sale to customers by a retail establishment and is not reusable. Single-use plastic carryout bags include both compostable and non-compostable carryout bags.

3. "Single-use paper bag" means a checkout bag provided by a retail establishment at the point of sale that is made from paper and is not a reusable bag.
4. "Recyclable" means material that can be sorted, cleansed, and reconstituted using the County's available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating, converting, or otherwise thermally destroying solid waste.
5. "Reusable bag" means any bag with handles that is specifically designed and manufactured for multiple reuse, and is either: 1) made of cloth or other washable fabric, 2) made of durable material that is at least 2.25 mils thick and is specifically designed to carry a minimum of 22 pounds for at least 125 times over a distance of 175 feet (A "reusable bag" may be made of plastic), 3) Have printed on the bag, or on a tag attached to the bag that is not intended to be removed, and in a manner visible to the consumer the following information: (A) The name of the manufacturer, (B) The location (country) where the bag was manufactured, (C) A recycling symbol or end-of-life management instructions, and (D) The percentage of postconsumer recycled material, if any; and 4) It shall not contain lead, cadmium, or any other heavy metal in toxic amounts.
6. "Retail establishment" or "retail store" means all sales outlets, stores, shops, restaurants, vehicles or other places of business located within the County of Santa Cruz which operate primarily to sell or convey goods, including "to go" food, directly to the ultimate consumer.
7. "Exempted uses" means those point-of-purchase or delivery sales, which have received an exemption, under Section 5.48.030 that allows the use of single-use bags.
8. (OPTIONAL) "Prepared food" means foods or beverages which are prepared on vendor's premises by cooking, chopping, slicing, mixing, freezing or squeezing, and which require no further preparation to be consumed. "Prepared food" does not include any raw uncooked meat product or fruits or vegetables, which are not chopped, squeezed, or mixed.
9. (OPTIONAL) "Take-out food" means prepared food or beverages requiring no further preparation to be consumed, and which are

generally purchased in order to be consumed off restaurant or retail food vendor's premises.

**5.48.020 BAN ON PLASTIC CARRYOUT BAGS AND STORE CHARGE FOR OTHER SINGLE-USE CARRYOUT BAGS.**

- A. No retail establishment shall provide single-use plastic carryout bags to customers at the point of sale, except as permitted in Section 5.48.030 of this chapter.
- B. Single-use paper carryout bags provided to customers shall contain a minimum of 40 percent post consumer recycled paper fiber, and be recyclable in the County of Santa Cruz's curbside recycling program. In addition, all retail stores subject to this ordinance shall provide independent certification (e.g., Forest Stewardship Council; Rainforest Alliance) that paper carryout bags being distributed originate from 40 percent post-consumer recycled fiber. Proof of certification shall be provided once annually to the Director of Public Works, or designee.
- C. During the period of time starting on the date that this chapter takes effect and continuing for one year thereafter, retail establishments shall charge 10-cents for each single-use paper checkout bag provided to customers at the point of sale. At the completion of the initial one-year period established by this subdivision, the charge shall increase to 25 cents per bag provided. There shall be a rebuttal presumption that this amount shall not be less than 10 cents for the first year and 25 cents thereafter. A store may charge a lesser amount if it submits a full accounting to the Director of Public Works, signed by a responsible manager under penalty of perjury, that identifies all costs including bag purchase, shipping handling and storage, showing a lesser actual cost to the store for each bag. Any such accounting shall expire one year from the date of original submission and must be resubmitted. Retail establishments shall keep annual records of paper bag distribution to be made available to the Director of Public Works, or designee upon request. The records shall be evaluated annually for the first five years by the County to ensure the effectiveness of the ordinance. If it is determined that single-use paper bag use has increased beyond anticipated levels, the Board of Supervisors shall consider increasing the minimum store charge to improve the effectiveness of the ordinance.
- D. The store charge imposed pursuant to this section shall not apply to customers participating in the California Special Supplemental Food Program for Women, Infants, and Children, the State Department of Social Services Food Stamp program, or other government-subsidized purchase programs for low-income residents.
- E. The ban on single-use plastic bags and the store charge on single-use paper bags would not apply to plastic or paper bags used to protect produce, meat, or otherwise used to protect items as they are put into a carryout bag at checkout. Other examples include: paper bags to

protect bottles, plastic bags around ice cream or other wet items, paper bags used to weigh candy, pharmacy bags or bags to protect greeting cards.

- F. Retail establishments are strongly encouraged to make reusable bags available for sale to customers at a reasonable price.
- G. Retail establishments shall indicate on the customer transaction receipt the number of paper carryout bags provided, and the total amount charged for those bags.
- H. County of Santa Cruz contractors and special events promoters, and their vendors, shall not provide plastic carryout bags to participants while performing under a County of Santa Cruz contract or permit.
- I. (*OPTIONAL*) Notwithstanding the store charge in Section 5.48.020(C) on single-use paper carryout bags, single-use paper carryout bags may be distributed by food vendors for the transportation of prepared take-out food intended for consumption off the food vendor's premises without a store charge.

#### **5.48.025 IMPLEMENTATION**

- A. Sixty days before this ordinance takes effect, the County of Santa Cruz shall mail or deliver a copy of it to every retail establishment within the unincorporated County of Santa Cruz.
- B. The County of Santa Cruz will distribute to each store a reproducible placard designed to inform shoppers of the County of Santa Cruz policy for carryout bags.

#### **5.48.030 EXEMPTIONS ALLOWING SINGLE-USE PLASTIC CARRYOUT BAGS**

- A. The Director of Public Works, or the Director's designee, may exempt a retail establishment from the requirement set forth in Section 5.48.020(A) of this chapter for a one-year period upon the retail establishment showing, in writing, that this chapter would create an undue hardship or practical difficulty not generally applicable to other persons in similar circumstances. The decision to grant or deny an exemption shall be in writing, and the Director's or the designee's decision shall be final.
- B. An exemption application shall include all information necessary for the Director of Public Works or the designee to make a decision, including but not limited to documentation showing factual support for the claimed exemption. The Director or the Director's designee may require the applicant to provide additional information.
- C. The Director of Public Works or designee may approve the exemption application in whole or in part, with or without conditions.

#### **5.48.035 ENFORCEMENT**

Enforcement of this ordinance shall be as follows:

- A. The Director of Public Works, or designee, shall have primary responsibility for enforcement of this ordinance and shall have authority to issue citations for violation of this chapter. The director, or designee, is authorized to establish regulations or administrative procedures to ensure compliance with this chapter.
- B. A person or entity violating or failing to comply with any of the requirements of this chapter shall be guilty of an infraction.
- C. The County of Santa Cruz may seek legal, injunctive, or any other relief to enforce the provisions of this chapter and any regulation or administrative procedure authorized by it.
- D. The remedies and penalties provided in this chapter are cumulative and not exclusive of one another.
- E. The Director of Public Works, or designee, may inspect any retail establishment's premises to verify compliance with this ordinance.

**5.48.040      VIOLATIONS**

Violations of this ordinance shall be enforced as follows:

- A. Violation of this chapter is hereby declared to be a public nuisance. Any violation described in the preceding paragraph shall be subject to abatement by the County of Santa Cruz, as well as any other remedies that may be permitted by law for public nuisances, and may be enforced by injunction upon a showing of violation.
- B. Upon a first violation by a retail establishment, the Director of Public Works, or designee, shall mail a written warning to the retail establishment. The warning shall recite the violation, and advise that future violations may result in fines.
- C. Upon a second or subsequent violation by a retail establishment, the following penalties will apply:
  - 1. A fine not exceeding one hundred dollars (\$100) for the first violation that occurs 30 days or more after the first warning.
  - 2. A fine not exceeding two hundred dollars (\$200) for the second violation that occurs 60 or more days after the first warning.
- D. Special Events promoters and their vendors who violate this ordinance in connection with commercial or noncommercial special events shall be assessed fines as follows:
  - 1. A fine not exceeding two hundred dollars (\$200) for an event of 1 to 200 persons.
  - 2. A fine not exceeding four hundred dollars (\$400) for an event of 201 to 400 persons.
  - 3. A fine not exceeding six hundred dollars (\$600) for an event of 401 to 600 persons.

4. A fine not exceeding one thousand dollars (\$1,000) for an event of 601 or more persons.

E. Remedies and fines under this Section are cumulative.

**5.48.45 SEVERABILITY.**

If any word, phrase, sentence, part, section, subsection, or other portion of this chapter, or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such work, phrase, sentence part, section, subsection, or other portion, or the proscribed application thereof, shall be severable, and the remaining provisions of this chapter, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect. The County of Santa Cruz hereby declares that it would have passed this title, and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases had been declared invalid or unconstitutional.

**5.48.50 EFFECTIVE DATE**

This ordinance shall become effective six (6) months after the date of final passage by the County of Santa Cruz Board of Supervisors.

**5.48.55 NO CONFLICT WITH FEDERAL OR STATE LAW.**

Nothing in this ordinance shall be interpreted or applied so as to create any requirement, power or duty in conflict with any federal or state law.

**5.48.60 PREEMPTION.**

The provisions of this chapter shall be null and void if state or federal legislation, or administrative regulation, takes effect with the same or substantially similar provisions as contained in this chapter. The Board of Supervisors shall determine whether or not identical or substantially similar statewide legislation has been enacted or regulations issued.

SECTION II

This ordinance shall take effect and be in force six months from the date of adoption.

PASSED AND ADOPTED this \_\_\_\_\_ day of, \_\_\_\_\_ 2010, by the Board of Supervisors of the County of Santa Cruz by the following vote:

AYES: SUPERVISORS  
NOES: SUPERVISORS

ABSENT: SUPERVISORS  
ABSTAIN: SUPERVISORS

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Chair of the Board of Supervisors

ATTEST: \_\_\_\_\_  
Clerk of the Board

Approved as to form:

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Office of County Counsel

DISTRIBUTION:

California Public Interest Group  
Clerk of the Board  
County Administrative Office  
County Counsel  
County Environmental Health Services  
Public Works, Solid Waste Division  
Each City Manager  
Save Our Shores of Santa Cruz  
Integrated Waste Management Local Task Force  
Santa Cruz Area Chamber of Commerce  
Santa Cruz Area Restaurant Association  
Unincorporated Area Chambers of Commerce



## ATTACHMENT 2

### Estimated Daily Single-use Bag Demand for the Unincorporated County of Santa Cruz, October 2010

#### Methodology

The County of Santa Cruz Planning Department contracted with InfoUSA.com to conduct a database search to determine who, and how many retail establishments currently exist in the unincorporated County. InfoUSA.com's databases include 210 million U.S. consumers, 14 million U.S. businesses, 13 million executives and professionals. A total of 672 potential businesses were identified based on the search criteria entered into their system. The search parameters included identification by zip codes, and by Standard Industrial Classification (SIC) Codes and Ranges. The zip codes and SIC Codes search are provided below. The results were provided to the County Planning Department in an Excel spreadsheet format. The spreadsheet was closely evaluated for accuracy and modified further to eliminate defunct or non-applicable businesses and/or to add new businesses that were not included in the database. Google Maps were reviewed in an effort to include other missing businesses that were not included in the database search. Ultimately, a conservative total of 485 businesses that may be affected by the proposed ordinance were identified. Each business identified was assigned a value for paper or plastic bag use on a per day basis. It was assumed for the purposes of this study that no reusable bags are in used in the unincorporated County due to lack of data. These assigned values are subjective and very conservative. A daily total of 32,800 paper bags were identified for the unincorporated County of Santa Cruz, compared to 137,675 plastic bags used daily. These two numbers were then multiplied by "a conservative" 365 days to determine the total annual paper and plastic bag use. Using the annual bag use numbers for both paper and plastic calculates out to a annual per capita use of 465 bags for the unincorporated County of Santa Cruz. The statewide average annual bag use per person is roughly 552. Please see the attached Excel spreadsheet for a list of businesses and their estimated single-use bag use.

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#### InfoUSA.com database Search Criteria

Dear Customer,  
Attached is your Market Research Report.  
Report Name: Bag Ordinance 1 (this has been saved in your account).  
Number of leads: 672

#### Tally by ZIP Code

City	State	ZIP Code	Number of Leads
Aptos	CA	95001	5
Aptos	CA	95003	185
Ben Lomond	CA	95005	42
Boulder Creek	CA	95006	58
Brookdale	CA	95007	2
Corralitos	CA	95076	3
Davenport	CA	95017	11
Felton	CA	95018	61
Freedom	CA	95019	64
La Selva Beach	CA	95076	5
Los Gatos	CA	95033	31
MT Hermon	CA	95041	1
Royal Oaks	CA	95076	46
Soquel	CA	95073	158
<b>Total</b>			<b>672</b>

#### Selection Criteria

## Item #: 9.B. Attach 1.pdf

SIC Codes and Ranges: General Merchandise Stores (53)  
SIC Codes and Ranges: Food Stores (54)  
SIC Codes and Ranges: Apparel & Accessory Stores (56)  
SIC Codes and Ranges: Home Furniture & Furnishings Stores (57)  
SIC Codes and Ranges: Eating & Drinking Places (58)  
SIC Codes and Ranges: Gasoline Service Stations (5541)  
SIC Codes and Ranges: Lumber & Other Building Materials (5211)  
SIC Codes and Ranges: Paint Glass & Wallpaper Stores (5231)  
SIC Codes and Ranges: Hardware Stores (5251)  
SIC Codes and Ranges: Retail Nurseries & Lawn Supply Stores (5261)  
SIC Codes and Ranges: Auto & Home Supply Stores (5531)  
SIC Codes and Ranges: Department Stores (5311)  
SIC Codes and Ranges: Variety Stores (5331)  
SIC Codes and Ranges: Misc General Merchandise Stores (5399)  
SIC Codes and Ranges: Grocery Stores (5411)  
SIC Codes and Ranges: Meat & Fish Markets (5421)  
SIC Codes and Ranges: Fruit & Vegetable Markets (5431)  
SIC Codes and Ranges: Candy Nut & Confectionery Stores (5441)  
SIC Codes and Ranges: Dairy Products Stores (5451)  
SIC Codes and Ranges: Retail Bakeries (5461)  
SIC Codes and Ranges: Miscellaneous Food Stores (5499)  
SIC Codes and Ranges: Mens & Boys Clothing Stores (5611)  
SIC Codes and Ranges: Womens Clothing Stores (5621)  
SIC Codes and Ranges: Womens Accessory & Specialty Stores (5632)  
SIC Codes and Ranges: Childrens & Infants Wear Stores (5641)  
SIC Codes and Ranges: Family Clothing Stores (5651)  
SIC Codes and Ranges: Shoe Stores (5661)  
SIC Codes and Ranges: Misc Apparel & Accessory Stores (5699)  
SIC Codes and Ranges: Furniture Stores (5712)  
SIC Codes and Ranges: Floor Covering Stores (5713)  
SIC Codes and Ranges: Drapery Curtain & Upholstery Stores (5714)  
SIC Codes and Ranges: Miscellaneous Homefurnishings Stores (5719)  
SIC Codes and Ranges: Household Appliance Stores (5722)  
SIC Codes and Ranges: Radio Tv & Electronics Stores (5731)  
SIC Codes and Ranges: Computer & Computer Software Stores (5734)  
SIC Codes and Ranges: Record & Prerecorded Tape Stores (5735)  
SIC Codes and Ranges: Musical Instrument Stores (5736)  
SIC Codes and Ranges: Eating Places (5812)  
SIC Codes and Ranges: Drinking Places (5813)  
SIC Codes and Ranges: Drug Stores & Proprietary Stores (5912)  
SIC Codes and Ranges: Liquor Stores (5921)  
SIC Codes and Ranges: Used Merchandise Stores (5932)  
SIC Codes and Ranges: Sporting Goods & Bicycle Shops (5941)  
SIC Codes and Ranges: Book Stores (5942)  
SIC Codes and Ranges: Stationery Stores (5943)  
SIC Codes and Ranges: Jewelry Stores (5944)  
SIC Codes and Ranges: Hobby Toy & Game Shops (5945)  
SIC Codes and Ranges: Camera & Photographic Supply Stores (5946)  
SIC Codes and Ranges: Gift Novelty & Souvenir Shops (5947)  
SIC Codes and Ranges: Luggage & Leather Goods Stores (5948)  
SIC Codes and Ranges: Sewing Needlework & Piece Goods (5949)  
SIC Codes and Ranges: Florists (5992)  
SIC Codes and Ranges: Tobacco Stores & Stands (5993)  
SIC Codes and Ranges: News Dealers & Newsstands (5994)  
SIC Codes and Ranges: Optical Goods Stores (5995)  
SIC Codes and Ranges: Miscellaneous Retail Stores Nec (5999)  
ZIP Code: 95001  
ZIP Code: 95005  
ZIP Code: 95007  
ZIP Code: 95018  
ZIP Code: 95033  
ZIP Code: 95003  
ZIP Code: 95006  
ZIP Code: 95017  
ZIP Code: 95019

ZIP Code: 95041  
ZIP Code: 95073  
ZIP Code: 95076  
Omit City: Watsonville, CA  
Omit City: Santa Cruz, CA  
Omit City: Capitola, CA  
Omit City: Scotts Valley, CA

Report request ID: 91833a89-7b7d-df11-9c52-005056bf65df  
Report job ID: 92833a89-7b7d-df11-9c52-005056bf65df

**List of Businesses and Their Estimated Daily Single-use Bag Demand**

**Prepared by  
The County of Santa Cruz Planning Department**

**October 2010**

Plastic/Day	Paper/Day	COMPANY NAME	ADDRESS	CITY	ZIP CODE	COUNTY	PHONE NUM	LAST NAME	FIRST NAME	CONTACT	ACTUAL	ACTUAL \$	PRIMARY SIC	DESCRIPTION	SECONDARY SIC DESCRIPTION #1	SECONDARY SIC DESCRIPTION #2	SQUARE FOOT
100	0	Alter Effects	4920 Soquel Dr	Soquel	95073-2431	Santa Cruz	8314755991				1	101000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Antiques	417 Trout Gulch Rd	Aptos	95003-3919	Santa Cruz	8316890688				13	1313000	Antiques-Dealers	Antiques-Dealers		2,500 - 9,999	
100	0	Boulder Creek Antiques	13164 Highway 9	Boulder Creek	95006-9120	Santa Cruz	8313306000	Flynn	Chris	Owner	23	2323000	Antiques-Dealers	Antiques-Dealers		2,500 - 9,999	
100	0	Brian W Curtis Antiques & Fine	4618 Soquel Dr	Soquel	95073-2125	Santa Cruz	8314820383	Curtis	Brian	Owner	2	202000	Antiques-Dealers	Antiques-Dealers	Art Galleries & Dealers	0 - 2,499	
100	0	Center Street Antiques	3010 Center St	Soquel	95073-2548	Santa Cruz	8314779211	Nix	Paige	Manager	25	2525000	Antiques-Dealers	Antiques-Dealers		2,500 - 9,999	
100	0	Cobblestone Antiques	4635 Soquel Dr	Soquel	95073	Santa Cruz	8314752535						Antiques-Dealers				
100	0	Crawford Antiques	4401 Soquel Dr	Soquel	95073-2120	Santa Cruz	8314821526	Crawford	John	Owner	2	202000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Cree Antiques	417 Trout Gulch Rd	Aptos	95003-3919	Santa Cruz	8316888101	Cosliello	Gail	Owner	1	101000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Edward & Sons Antiques	5025 Soquel Dr	Soquel	95073-2441	Santa Cruz	8314722122	Edward	Ed	Owner	1	101000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Frank's Antiques	4900 Soquel Dr	Soquel	95073-2431	Santa Cruz	8314623953	Triarico	Frank	Owner	1	101000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	LA Sirena Antiques	500 Highway 1	Davenport	95071-8740	Santa Cruz	8314272766	Kempke	Kim	Owner	2	202000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Lacey Days Antiques	9280 Highway 9	Ben Lomond	95005-9395	Santa Cruz	8313382686	Lacey	Tom	Owner	2	202000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Lily Wallace Antiques	448 Granite Way	Aptos	95003 0000	Santa Cruz	8316888101	Wallace	Lily	Owner	1	101000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Mary Lou's Antiques & Collectibles	6223 Highway 9	Felton	95018	Santa Cruz	8315663671						Antiques-Dealers				
100	0	Monterey Bay Estate Jewelry	7765 Soquel Dr # O	Aptos	95003-3963	Santa Cruz	8318628560	Craige	Michael	Owner	2	202000	Antiques-Dealers	Antiques-Dealers	Jewelry Buyers (Whls)	0 - 2,499	
100	0	Oak Hill Antiques	5015 Soquel Dr	Soquel	95073 0000	Santa Cruz	8312475206	Roth	Janelle	Owner	2	202000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Past Glass & Crafts	7222 Highway 9	Felton	95018-9327	Santa Cruz	8313357202	Lingscheid	Mdanie	Owner	1	101000	Antiques-Dealers	Antiques-Dealers	Federal Government Contractors	0 - 2,499	
100	0	Robert's Antiques	417 Trout Gulch Rd	Aptos	95003-3919	Santa Cruz	8316842942	Azensky	Robert	Owner	1	101000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Rust & Dust	3555 Trout Gulch Rd	Aptos	95003-2611	Santa Cruz	2096886675	Imlay	Edward	President	2	202000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Soquel Village Antiques	4700 Soquel Dr	Soquel	95073-2427	Santa Cruz	8314764747	Breckle	Kathy	Owner	2	202000	Antiques-Dealers	Antiques-Dealers	Jewelers-Retail	0 - 2,499	
100	0	Towne & Country Antiques	9280 Highway 9 # 22	Ben Lomond	95005-9393	Santa Cruz	8313659393	Camperi	Jan	Owner	1	101000	Antiques-Dealers	Antiques-Dealers		0 - 2,499	
100	0	Trader's Emporium Antiques	4940 Soquel Dr	Soquel	95073-2431	Santa Cruz	8314759201	Walker	Sharon	Owner	4	404000	Antiques-Dealers	Antiques-Dealers		2,500 - 9,999	
100	0	Vintage Antiques & Cllctbils	125 Sonala Ln	Aptos	95003-5529	Santa Cruz	8316841135	Nix	Paige	Owner	2	202000	Antiques-Dealers	Antiques-Dealers	Importers (Whls)	0 - 2,499	
100	0	Wisteria Antiques & Design	5870 Soquel Dr	Soquel	95073-2612	Santa Cruz	8314622900	Saveria	Carol	Owner	5	505000	Antiques-Dealers	Antiques-Dealers		2,500 - 9,999	
200	0	Aped Appliance Parts	2315 Soquel Dr	Santa Cruz	95065	Santa Cruz	8314623456						Appliances Parts-Retail				
50	0	Davenport Gallery	450 Highway 1	Davenport	95017 0000	Santa Cruz	8314210500						Art Galleries & Dealers			0 - 2,499	
50	0	Fine Art Enterprises	3100 Porter St	Soquel	95073-2218	Santa Cruz	8314772000	Hunter	Randy	President	7	2051000	Art Galleries & Dealers	Art Galleries & Dealers		2,500 - 9,999	
50	0	Ormsby Of Ca	380 Ranchitos Del Sol	Aptos	95003-8583	Santa Cruz	8316859010	Ormsby	Anne	Owner	1	291000	Art Galleries & Dealers	Art Galleries & Dealers	Artists-Fine Arts	0 - 2,499	
50	0	Pacific Art & Design	6010 Highway 9	Felton	95018-9535	Santa Cruz	8313353800						Art Galleries & Dealers			0 - 2,499	
50	0	Skyland Gallery	25079 Skyland Rd	Los Gatos	95033-8164	Santa Clara	4089533465	Cirocco	Frank	Owner	2	586000	Art Galleries & Dealers	Art Galleries & Dealers		0 - 2,499	
50	0	Studio 5 Art & Design	450 Swanton Rd	Davenport	95017-9712	Santa Cruz	8314201005	Niven	Sarah	Owner	1	293000	Art Galleries & Dealers	Art Galleries & Dealers		0 - 2,499	
200	0	Boulder Creek Auto Parts	12850 Highway 9	Boulder Creek	95006-9114	Santa Cruz	8313382147	Greedy	Sean	Manager	3	585000	Automobile Parts & Supplies-Retail-New	Automobile Parts & Supplies-Retail-New	Engines-Rebuilding & Exchanging	2,500 - 9,999	
100	0	Helitriser Customs	4631 Soquel Dr	Soquel	95073	Santa Cruz	8314641333						Motorcycle Parts & Supplies-Retail-New				
500	0	Kragen Auto Parts	1628 Freedom Blvd	Freedom	95019-3007	Santa Cruz	8317221108	Diaz	Waldo	Site Manag	20	3900000	Automobile Parts & Supplies-Retail-New	Automobile Parts & Supplies-Retail-New	Batteries-Storage-Retail	2,500 - 9,999	
200	0	Pajaro Valley Auto Parts	1862 Freedom Blvd	Freedom	95019-2837	Santa Cruz	8312860040	Bailey	Mike	Owner	3	585000	Automobile Parts & Supplies-Retail-New	Automobile Parts & Supplies-Retail-New		2,500 - 9,999	
200	0	Piccioni Pep	6412 Highway 9	Boulder Creek	95006 0000	Santa Cruz	8313366748						Automobile Parts & Supplies-Retail-New			2,500 - 9,999	
500	0	Winchester Auto Parts	3145 Soquel Dr	Soquel	95073-2032	Santa Cruz	8314752222	Froling	Mark	Owner	14	2730000	Automobile Parts & Supplies-Retail-New	Automobile Parts & Supplies-Retail-New	Batteries-Storage-Retail	2,500 - 9,999	
0	400	Bagelry	4763 Soquel Dr	Soquel	95073-2457	Santa Cruz	8314620686	Freelis	Chris	Site Manag	15	840000	Bagels	Bagels	Bakers-Retail	2,500 - 9,999	
0	400	Aldos Italian Bakery	4628 Soquel Dr	Soquel	95073-2125	Santa Cruz	8314763470	Oliveri	Mauro	Owner	12	852000	Bakers-Retail	Bakers-Retail	Bread/Other Bakery Prod-Ex Cookies	2,500 - 9,999	
0	100	Dessert First Bakery	13090 Highway 9 # 2	Boulder Creek	95006-9183	Santa Cruz	8313387008	Defratras	Lori	Owner	2	142000	Bakers-Retail	Bakers-Retail	Bread/Other Bakery Prod-Ex Cookies	0 - 2,499	
0	400	Heather's Pastisserie	7486 Soquel Dr	Aptos	95003-3820	Santa Cruz	8316623546	Liner	Heather	Owner	10	710000	Bakers-Retail	Bakers-Retail	Wedding Bakesies	2,500 - 9,999	
0	100	Jerry's Donuts	2022 Freedom Blvd	Freedom	95019-2821	Santa Cruz	8317616331						Bakers-Retail			0 - 2,499	
0	400	Santa Rosa Bakery	305 Salinas Rd	Royal Oaks	95076-5257	Santa Cruz	8317619158	Renteria	Jose	Owner	8	568000	Bakers-Retail	Bakers-Retail		2,500 - 9,999	
0	200	Scopazzo's	13300 Big Basin Way	Boulder Creek	95006-9238	Santa Cruz	8313386441	Violante	Paul	Owner	60	4560000	Banquet Rooms	Caterers	Bars	2,500 - 9,999	
25	0	Amadora	1720 Brommer St	Santa Cruz	95062	Santa Cruz	8314793754						Beauty Salons				
25	0	Bella Donna European Hair	3 Seascape Vtg	Aptos	95003-5102	Santa Cruz	8316881077	Perini	Donna	Owner	3	165000	Beauty Salons	Beauty Salons	Wigs Toupees & Hairpieces	0 - 2,499	
25	0	Brendain's Hair Design	6412 Highway 9	Felton	95018	Santa Cruz	8313357502						Beauty Salons				
25	0	Brookdale Inn & Spa	11570 Highway 9	Brookdale	95007	Santa Cruz	8313391300						Beauty Salons				
25	0	Charisma Inc	5441 Soquel Dr	Soquel	95073-2659	Santa Cruz	8314756960	Busenhart	Carolyn	Owner	1	55000	Beauty Salons	Beauty Salons	Hair Goods & Supplies-Retail	0 - 2,499	
25	0	Cottage Salon	402 Bemal Street	Aptos	95003	Santa Cruz	8316888736						Beauty Salons				
25	0	David Adams Salon	877 41st Av	Santa Cruz	95062	Santa Cruz	8314754838						Beauty Salons				
25	0	Fantastic Sam's	2750 41st Ave	Soquel	95073	Santa Cruz	8314755002						Beauty Salons				
25	0	Fusion Salon & Spa	1051 41st Ave	Santa Cruz	95062	Santa Cruz	8314793727						Beauty Salons				
25	0	Hair Shop Santa Cruz	2124 Soquel Av	Santa Cruz	95062	Santa Cruz	8314231900						Beauty Salons				
25	0	Head Over Heels	1515 Capitola Rd	Santa Cruz	95062	Santa Cruz	8314754940						Beauty Salons				
25	0	Isvara Organics	1007 41st Av	Santa Cruz	95062	Santa Cruz	8314768680						Beauty Salons				
25	0	Lather Hair Studio	1365 Capitola Rd	Santa Cruz	95062	Santa Cruz	8314663040						Beauty Salons				
25	0	Lee's Salon	6539 Highway 9	Felton	95018	Santa Cruz	8313354789						Beauty Salons				
25	0	Lola's Addiction	1200 17th Av	Santa Cruz	95062	Santa Cruz	8314757777						Beauty Salons				
25	0	Mecusa Hair Salon	22598 E. Cliff Dr	Santa Cruz	95062	Santa Cruz	8314752508						Beauty Salons				
25	0	Mill Street Hairquarters	9400 Mill St	Ben Lomond	95005	Santa Cruz	8313385402						Beauty Salons				
25	0	Oasis Hair & Skin Care	1664 Soquel Dr	Santa Cruz	95062	Santa Cruz	8314648550						Beauty Salons				
25	0	Pacific Skin Care	879 41st Av	Santa Cruz	95062	Santa Cruz	8314781060						Beauty Salons				
25	0	Santa Cruz Hair Designs	711 Carmel St	Santa Cruz	95062	Santa Cruz	8314756700						Beauty Salons				
25	0	Serenity Salon	8021 Soquel Drive	Aptos	95003	Santa Cruz	8316623815						Beauty Salons				
25	0	Redz	2841 Porter St # A	Soquel	95073-2466	Santa Cruz	8314641998	Cartwright	Lori	Owner	6	330000	Beauty Salons	Beauty Salons	Hair Goods & Supplies-Retail	0 - 2,499	
25	0	Spoiled Rotten Day Spa	9039 Soquel Dr	Aptos	95003	Santa Cruz	8316887714						Beauty Salons				
25	0	The Last Resort	5024 Soquel Dr	Soquel	95073	Santa Cruz	8314640464						Beauty Salons				
25	0	Toy Box Hair Salon	2870 Porter Street	Soquel	95073	Santa Cruz	8314768099						Beauty Salons				
25	0	Turning Heads Salon	2865 Soquel Av	Santa Cruz	95062	Santa Cruz	8314798232						Beauty Salons				
25	0	Urban Groove Hair Salon	575 7th Av	Santa Cruz	95062	Santa Cruz	8314768160						Beauty Salons				
100	0	Bike Station Aptos	36 Rancho Del Mar	Aptos	95003-3904	Santa Cruz	8316884169	Thompson	Joanne	Owner	3	444000	Bicycles-Dealers	Bicycles-Dealers		2,500 - 9,999	

0	100 White Raven	6253 Highway 9	Felton	95018-9710	Santa Cruz	8313353611	Mc Neill	Larry	Owner	5	550000	Espresso & Espresso Bars	Espresso & Espresso Bars				2,500 - 9,999
1000	0 Beverly's Fabric & Crafts	100 Colton Ln	Soquel	95073-2191	Santa Cruz	8314752811				43	20000000	Fabric Shops	Scrapbook Albums & Supplies	Importers (Whs)			2,500 - 9,999
100	0 Chick's with Silks	2425B Soquel Dr	Santa Cruz	95045	Santa Cruz	8314548121						Knitting Shop-Retail					
100	0 Monkey Girl Beads	1030 41st Av	Santa Cruz	95062	Santa Cruz	8314842223						Beads & Gifs-Retail					
0	100 Ana's Flowers	650 Capitola Rd	Santa Cruz	95062	Santa Cruz	8314643030						Florists-Retail					
0	100 Aptos Flowers	7520 Soquel Dr	Aptos	95003-3820	Santa Cruz	8316610515				2	176000	Florists-Retail	Florists-Retail				0 - 2,499
0	100 Fionna Floral Warehouse	3140 Porter St	Soquel	95073-2244	Santa Cruz	8314647636				2	176000	Florists-Retail	Florists-Retail				0 - 2,499
0	100 Flower Mill Florist Of Soquel	4600 Soquel Dr	Soquel	95073-2125	Santa Cruz	8314767920	Ash	Tina	Owner	5	440000	Florists-Retail	Florists-Retail	Wedding Supplies & Services			0 - 2,499
0	100 Seascapes Flowers & Antiques	5 Seascapes Vlg	Aptos	95003-6102	Santa Cruz	8316629030	Craig	Laurie	Owner	6	528000	Florists-Retail	Florists-Retail	Wedding Supplies & Services			0 - 2,499
0	100 Susi's Flowers	25 Rancho Del Mar	Aptos	95003-3902	Santa Cruz	8318628820	Jackson	Susi	Owner	2	176000	Florists-Retail	Florists-Retail	Wedding Supplies & Services			0 - 2,499
100	0 SUA Flower Outlet	1003 41st Av	Santa Cruz	95062	Santa Cruz	8314623033						Florists-Retail					
100	0 Panda Inn Restaurant	783 Rio Del Mar Blvd # 5	Aptos	95003-4700	Santa Cruz	8316888620	Chau	Wynnsomt	Owner	10	400000	Foods-Carry Out	Foods-Carry Out				2,500 - 9,999
100	0 Snow White Drive Inn	223 State Park Dr	Aptos	95003-4323	Santa Cruz	8316884747				4	160000	Foods-Carry Out	Foods-Carry Out				0 - 2,499
200	0 Rodriguez Produce	17 Porter Dr	Royal Oaks	95076-5338	Santa Cruz	8317637888	Rodriguez	Salvador	Owner	2	444000	Fruits & Vegetables & Produce-Retail	Fruits & Vegetables & Produce-Retail				0 - 2,499
500	0 Sunnyside Produce	2520 S Main St	Soquel	95073-2408	Santa Cruz	8314788904				16	3552000	Fruits & Vegetables & Produce-Retail	Grocers-Retail				2,500 - 9,999
0	100 Air & Fire	13124 Highway 9	Boulder Creek	95008-9120	Santa Cruz	8313387567	Pena	Alejandro	President	2	236000	Gift Shops	Gift Shops				0 - 2,499
0	0 Bob's Stop & Get It	9050 Highway 9 #A	Ben Lomond	95005	Santa Cruz	8313369496						Gift Shops					
100	100 Fleur	8063 Aptos St	Aptos	95003-3904	Santa Cruz	8316850606	Keil	Nancy	Owner	1	118000	Gift Shops	Garden Ornaments	Nurserymen			0 - 2,499
0	100 Gallery This At The Brookdale	11570 Highway 9	Brookdale	95007 0000	Santa Cruz	8313384770				1	118000	Gift Shops	Gift Shops				0 - 2,499
0	100 LA Tienda Bonita	110 Rancho Del Mar	Aptos	95003-3913	Santa Cruz	8315880341				1	118000	Gift Shops	Gift Shops				0 - 2,499
0	200 Le Chef Kitchen & More	94 Rancho Del Mar	Aptos	95003-3913	Santa Cruz	8316851808				3	354000	Gift Shops	Kitchen Accessories	Photographers-Passport			2,500 - 9,999
0	100 Mad Molecula	50 Rancho Del Mar	Aptos	95003	Santa Cruz	8316882868						Gift Shops					
0	100 Outside-In Home	7568 Soquel Dr	Aptos	95003	Santa Cruz	8316640178						Gift Shops					
0	100 Outside-In Kids	7560 Soquel Dr	Aptos	95003	Santa Cruz	8316840513						Gift Shops					
0	100 Virgo Rising	6264 Highway 9 # A	Felton	95018-8713	Santa Cruz	8313357722	Diamond	Karen	Owner	1	118000	Gift Shops	Gift Shops				0 - 2,499
0	100 Boulder Creek Golf-Country Ctlb	16901 Big Basin Way	Boulder Creek	95006-9218	Santa Cruz	8313382111	Aragona	William	President	75	6300000	Golf Courses	Restaurants	Hotels & Motels			2,500 - 9,999
0	100 Seascapes Golf Club	610 Clubhouse Dr	Aptos	95003-4899	Santa Cruz	8316883214				38	3192000	Golf Courses	Banquet Rooms				2,500 - 9,999
0	200 A J's Chevron Market-Car Wash	5855 Soquel Dr	Soquel	95073-2829	Santa Cruz	8314790399				5	1235000	Grocers-Retail	Convenience Stores	Diesel Fuel (Whs)			0 - 2,499
0	100 Azteca Market & Bakery	1813 Freedom Blvd	Freedom	95019-3018	Santa Cruz	8317633765	Jauregui	Nora	Owner	2	484000	Grocers-Retail	Grocers-Retail	Health & Diet Foods-Retail			2,500 - 9,999
0	5,000 Ben Lomond Market	9440 Mill St	Ben Lomond	95005-9301	Santa Cruz	8313363600	Clements	Ron	Owner	12	2964000	Grocers-Retail	Grocers-Retail	Gift Shops			2,500 - 9,999
500	0 Big Basin Redwood Co	21600 Big Basin Way	Boulder Creek	95008-9063	Santa Cruz	8313389745	Khair	Carric	Manager	7	1729000	Grocers-Retail	Grocers-Retail				2,500 - 9,999
500	0 Brothers Market	202 Buena Vista Dr	Freedom	95019-2711	Santa Cruz	8317868958	Saba	Ahamed	Manager	4	988000	Grocers-Retail	Grocers-Retail				0 - 2,499
500	0 Casalegno's Store	3 Laurel Glen Rd	Soquel	95073-9521	Santa Cruz	8314753918	Strup	Gina	Owner	3	741000	Grocers-Retail	Grocers-Retail				0 - 2,499
500	0 Corralitos Market & Sausage Co.	568 Corralitos Rd	Watsonville	95076	Santa Cruz	8317222633						Grocers-Retail					
500	0 Deke's Market	334 7th Av	Santa Cruz	95062	Santa Cruz	8314765897						Grocers-Retail					
0	5,000 Deluxe Foods Of Aptos	783 Rio Del Mar Blvd # 25	Aptos	95003-4798	Santa Cruz	8316887442	Monte	Mark	President	80	19780000	Grocers-Retail	Grocers-Retail	Meat-Retail			2,500 - 9,999
500	0 Elizabeth's Market	23040 E. Cliff Dr	Santa Cruz	95062	Santa Cruz	8314753356						Grocers-Retail					
1000	0 Four Corners Market	1003 Amesti Rd	Corralitos	95076-0626	Santa Cruz	8317222828	Chin	Debbie	Owner	8	1976000	Grocers-Retail	Grocers-Retail				2,500 - 9,999
500	0 Harvest Moon Market	518 Green Valley Rd	Watsonville	95076	Santa Cruz	8317222839						Grocers-Retail					
500	0 Hernandez Market	4623 Soquel Dr	Soquel	95073-2124	Santa Cruz	8314623894	Hernandez	Tony	Owner	2	494000	Grocers-Retail	Grocers-Retail				0 - 2,499
500	0 Johnnie's Super Market	13225 Highway 9	Boulder Creek	95006-9125	Santa Cruz	8313386463				30	7410000	Grocers-Retail	Grocers-Retail				2,500 - 9,999
500	0 Kong's Market	400 26th Av	Santa Cruz	95082	Santa Cruz	8314794947						Grocers-Retail					
500	0 LA Esperanza Market	103 Railroad Ave	Royal Oaks	95076-5308	Santa Cruz	8317225637	Balquif	Amelia	Owner	8	1976000	Grocers-Retail	Grocers-Retail				2,500 - 9,999
500	0 LA Esperanza Market	21400 E. Cliff Dr	Santa Cruz	95062	Santa Cruz	8314666361						Grocers-Retail					
500	0 Los Lomas Market	182 Hall Rd	Royal Oaks	95076-5697	Santa Cruz	8317249041	Mendoza	Javier	Owner	7	1729000	Grocers-Retail	Grocers-Retail				2,500 - 9,999
500	0 Live Oak Supermarket	1688 Capitola Rd	Santa Cruz	95062	Santa Cruz	8314753600						Grocers-Retail					
500	0 Mare's Meat Market	70 Porter Dr	Royal Oaks	95076-5223	Santa Cruz	8317687099	Gomez	Gilberto	Owner	3	741000	Grocers-Retail	Grocers-Retail				0 - 2,499
500	0 Mexico Meat Market	22 Porter Dr	Royal Oaks	95076-5223	Santa Cruz	8317246483	Martinez	Maria	Owner	2	494000	Grocers-Retail	Grocers-Retail				0 - 2,499
500	0 Mountain Store	125 Pool Dr	Boulder Creek	95006-9632	Santa Cruz	8313382731	Kim	Felix	Owner	2	494000	Grocers-Retail	Grocers-Retail				0 - 2,499
0	5,000 New Leaf Community Markets	13159 Highway 9	Boulder Creek	95006-9120	Santa Cruz	8313387211	Mace	Craig	Manager	14	3458000	Grocers-Retail	Grocers-Retail	Health & Diet Foods-Retail			2,500 - 9,999
0	5,000 New Leaf Community Markets	6240 Highway 9	Felton	95018-9713	Santa Cruz	8313357322	Locatelli	Bob	Owner	45	6795000	Grocers-Retail	Grocers-Retail	Vitamins			2,500 - 9,999
500	0 Pajaro Food Ctr	307 Salinas Rd	Royal Oaks	95076-5257	Santa Cruz	8317243654	Llamas	Hector	Owner	5	1235000	Grocers-Retail	Grocers-Retail				0 - 2,499
500	0 Phil's Market	4901 Soquel Dr	Soquel	95073-2430	Santa Cruz	8314794661	Elias	Phil	Owner	2	494000	Grocers-Retail	Grocers-Retail				0 - 2,499
500	0 Rio Market	139 Esplanade	Aptos	95003-4501	Santa Cruz	8316884017				1	247000	Grocers-Retail	Grocers-Retail				0 - 2,499
10,000	0 Safeway	16 Rancho Del Mar	Aptos	95003-3902	Santa Cruz	8316882775				120	29640000	Grocers-Retail	Grocers-Retail	Bakers-Retail			40,000+
10,000	0 Safeway	6255 Graham Hill Rd	Felton	95018-9723	Santa Cruz	8313353532	Ybarra	Robert	General M	75	18525000	Grocers-Retail	Grocers-Retail	Bakers-Retail			2,500 - 9,999
10,000	0 Safeway	2010 Freedom Blvd	Freedom	95019-2834	Santa Cruz	8317282640	Harros	Rafael	General M	120	29640000	Grocers-Retail	Grocers-Retail	Bakers-Retail			40,000+
10,000	0 Safeway	2720 41st Ave	Soquel	95073-2111	Santa Cruz	8314777212	Hubbard	Scott	General M	120	29640000	Grocers-Retail	Grocers-Retail	Bakers-Retail			40,000+
2,000	0 Seascapes Foods	1729	Aptos	95003-9100	Santa Cruz	831768934	Walker	Julie	Owner	15	3765000	Grocers-Retail	Grocers-Retail				2,500 - 9,999
500	0 Summit Store Inc	24187 Summit Rd	Los Gatos	95003-8237	Santa Clara	4083532186	Osborn	Danrell	Owner	30	7410000	Grocers-Retail	Grocers-Retail				2,500 - 9,999
500	0 Zayante Creek Market & Deli	9210 E Zayante Rd	Felton	95018-9015	Santa Cruz	8313352542				1	247000	Grocers-Retail	Food Markets	Video Tapes Discs & Cassettes			0 - 2,499
200	0 Valero	2501 S Main St	Soquel	95073-2407	Santa Cruz	8314755516				3	3411000	Grocers-Wholesale	Convenience Stores				10,000 - 38,999
100	0 Aptos Beauty Supply	120 Rancho Del Mar	Aptos	95003-3913	Santa Cruz	8316628000	Gauer	Edward	Owner	3	465000	Hair Goods & Supplies-Retail	Hair Goods & Supplies-Retail				2,500 - 9,999
1,000	0 Aptos Ace Hardware	72 Rancho Del Mar	Aptos	95003-3901	Santa Cruz	8316620222	Hoffer	Rodney	Owner	16	2832000	Hardware-Retail	Plumbing Fixtures & Supplies-New-Retail	Tools (Whs)			2,500 - 9,999
500	0 Boulder Creek True Value Hrdwr	13110 Highway 9	Boulder Creek	95006-9120	Santa Cruz	8313386833	Conrad	Doug	President	9	1593000	Hardware-Retail	Hardware-Retail				2,500 - 9,999
100	0 Felton Paint & Hardware	9219 Highway 9	Felton	95018-9710	Santa Cruz	8313354838	Walker	Don	Owner	1	177000	Hardware-Retail	Paint-Retail	Work Clothing-Retail			2,500 - 9,999
500	0 Freedom Ace Hardware	1684 Freedom Blvd	Freedom	95019-2837	Santa Cruz	8317244740	Rodriguez	Manuel	Site Mana	11	1947000	Hardware-Retail	Hardware-Retail				2,500 - 9,999
500	0 Monument True Value Lumber	2111 Freedom Blvd	Freedom	95018-2722	Santa Cruz	8317247537	Shugarl	Mark	Site Mana	13	2301000	Hardware-Retail	Building Materials	Builders Hardware (Whs)			2,500 - 9,999
2000	0 Scarborough Home Ctr	9470 Highway 9	Ben Lomond	95005-8228	Santa Cruz	8313365142	Scarborough	Nike	Owner	25	4425000	Hardware-Retail	Plumbing Fixtures & Supplies-New-Retail	Tools-Electric (Whs)			2,500 - 9,999
100	0 Bella Fiori Hats	7000 Soquel Dr # 3	Aptos	95003-3647	Santa Cruz	8316622730				1	155000	Hats-Retail	Hats-Retail				2,500 - 9,999
0	500 Aptos Natural Foods	7506 Soquel Dr	Aptos	95003-3820	Santa Cruz	8316853334	Riley	Mark	Owner	20	302000						

100	0 Nonno's Pizza & Pasta	21433 Broadway Rd	Los Gatos	95033-8969	Santa Clara	4083535633	DiIullo	Ralph	Owner	2	112000	Pizza	Restaurants		0 - 2,499	
100	0 Mangiamo Pizza	783 Rio Del Mar Blvd # 45	Aptos	95003-4700	Santa Cruz	8316881477	Pruett	Jeff	Owner	4	224000	Pizza	Restaurants		0 - 2,499	
100	0 Pops Pizza	22990 Santa Cruz Hwy	Los Gatos	95033-9021	Santa Clara	4083531477				5	280000	Pizza	Restaurants		0 - 2,499	
100	0 Redwood Pizzeria	6205 Highway 9	Felton	95018-9710	Santa Cruz	8313351500				8	448000	Pizza	Restaurants		2,500 - 9,999	
100	0 Round Table Pizza	13200 Highway 9 # B	Boulder Creek	95006-8912	Santa Cruz	8313382141	Acton	Jeff	Owner	19	1064000	Pizza	Foods-Carry Out	Restaurants	2,500 - 9,999	
100	0 Round Table Pizza	6267 Graham Hill Rd	Felton	95018-9723	Santa Cruz	8313355344	Deloor	Kelley	Site Mana	16	1008000	Pizza	Foods-Carry Out	Restaurants	2,500 - 9,999	
100	0 Round Table Pizza	2690 41st Ave	Soquel	95073-2109	Santa Cruz	8314759611	Phillips	David	Site Mana	32	1792000	Pizza	Foods-Carry Out	Restaurants	2,500 - 9,999	
100	0 Showtime Pizzeria	98 Rancho Del Mar	Aptos	95003-3913	Santa Cruz	8316623362	Gonzalez	Jose	Owner	6	336000	Pizza	Restaurants		0 - 2,499	
100	0 Straw Hat Pizza	2026 Freedom Blvd	Freedom	95019-2835	Santa Cruz	8317223555	Noyyar	Raj	Owner	8	448000	Pizza	Restaurants		2,500 - 9,999	
100	0 Pizza 1	253 Center Ave,	Aptos	95003	Santa Cruz	8316841110						Pizza	Restaurants			
100	0 Pleasure Pizza	4000 Portola Dr	Santa Cruz	95062	Santa Cruz	8314754999						Pizza	Restaurants			
100	0 Upper Crust Pizza & Pasta	2501 Soquel Dr	Santa Cruz	95065	Santa Cruz	8314762333						Pizza	Restaurants			
100	0 Village Host Pizza & Grill	4 Seascope Vlg	Aptos	95003-6100	Santa Cruz	8316858646	Sieweger	Tom	Owner	15	896000	Pizza	Restaurants			
100	0 Pottery Pantry	8035 Soquel Dr	Aptos	95003	Santa Cruz	8316842207	Doherty	Angie	Owner	1	186000	Pottery	Pottery		2,500 - 9,999	
100	0 Pottery Planet	2600 Soquel Av	Santa Cruz	95062	Santa Cruz	8314659216						Pottery	Pottery		2,500 - 9,999	
100	0 Ambrosia India Bistro	207 Sea Ridge Rd	Aptos	95003-4325	Santa Cruz	8316850610				6	240000	Restaurants	Restaurants			
100	0 Aptos Burger Co	106 Rancho Del Mar	Aptos	95003-3913	Santa Cruz	8316881282	Foltz	Terry	Owner	12	480000	Restaurants	Hamburger & Hot Dog Stands		0 - 2,499	
100	0 Aptos Street BBQ	8056 Aptos Street	Aptos	95003	Santa Cruz	8316621721						Restaurants	Restaurants		2,500 - 9,999	
100	0 100 Aptos Erik's Deli	102 Rancho Del Mar	Aptos	95003	Santa Cruz	8316856556				10	400000	Restaurants	Restaurants		2,500 - 9,999	
100	0 Aragonas Italian Restaurant	2591 S Main St	Soquel	95073-2407	Santa Cruz	8314625100				6	240000	Restaurants	Restaurants	Caterers	2,500 - 9,999	
100	0 Atmla Cabana Taqueria	3070 Porter St	Soquel	95073-2216	Santa Cruz	8314758960				6	240000	Restaurants	Restaurants		0 - 2,499	
100	0 Au Midi	7960 Soquel Cr # E	Aptos	95003-3945	Santa Cruz	8316852600				6	240000	Restaurants	Restaurants		0 - 2,499	
100	0 Bangkok West	2505 Cabrillo College Dr # 4	Aptos	95003-3166	Santa Cruz	8314798297	Watanedtom	Chai	Owner	11	440000	Restaurants	Restaurants		2,500 - 9,999	
100	0 Betty Burgers	1000 41st Av	Santa Cruz	95062	Santa Cruz	8314755901						Restaurants	Foods-Carry Out		2,500 - 9,999	
100	0 Bittersweet Bistro	787 Rio Del Mar Blvd	Aptos	95003-4727	Santa Cruz	8316629899	Vinolius	Elizabeth	Owner	150	6000000	Restaurants	Restaurants		2,500 - 9,999	
100	0 Boulder Creek Brewery & Cafe	13040 Highway 9	Boulder Creek	95006	Santa Cruz	8313387882						Restaurants	Restaurants		2,500 - 9,999	
100	0 Britannia Arms	8017 Soquel Or	Aptos	95003-3917	Santa Cruz	8316841233	Hewitt	Andrew	Owner	12	480000	Restaurants	Restaurants	Delicatessens		2,500 - 9,999
100	0 Brookdale Inn & Spa	11570 Highway 9	Brookdale	95007	Santa Cruz	8313381300						Restaurants	Restaurants		2,500 - 9,999	
100	0 Cadillac Cafe	2806 Freedom Blvd	Watsonville	95076	Santa Cruz	8317611038						Restaurants	Restaurants			
100	0 Cafe Cruz	2821 41st Ave	Soquel	95073-2138	Santa Cruz	8314783801	Wilson	Steve	Owner	50	2000000	Restaurants	Restaurants	Caterers	2,500 - 9,999	
100	0 Cafe Puerto Escondido	150 Owl Ridge Way	Aptos	95003-4997	Santa Cruz	8314697685				6	240000	Restaurants	Restaurants		0 - 2,499	
100	0 Cafe Sparrow	8042 Soquel Cr # A	Aptos	95003-4085	Santa Cruz	8316886238	Montague	Robert	President	20	800000	Restaurants	Restaurants		2,500 - 9,999	
100	0 California Grill Restaurant	1970 Freedom Blvd	Freedom	95019-2836	Santa Cruz	8317225052	Torabi	Paul	Owner	10	400000	Restaurants	Restaurants		2,500 - 9,999	
100	0 Camino Real Cafe	30 San Juan Rd	Royal Oaks	95076-5235	Santa Cruz	8317221506	Morales	Luis	Owner	4	160000	Restaurants	Restaurants		0 - 2,499	
100	0 Canton Restaurant	900 41st Av	Santa Cruz	95062	Santa Cruz	8314758751						Restaurants	Restaurants		0 - 2,499	
100	0 Carl's Jr	1901 Freedom Blvd	Freedom	95019-2819	Santa Cruz	8317226920	Miranda	Luz	Site Mana	20	800000	Restaurants	Restaurants		2,500 - 9,999	
100	0 Carpos	2400 Porter St	Soquel	95073-2417	Santa Cruz	8314766260	Todd	Tedd	Owner	40	1800000	Restaurants	Foods-Carry Out		2,500 - 9,999	
100	0 Casa Del 17	22990 Santa Cruz Hwy	Los Gatos	95033-9021	Santa Clara	4083531717				7	280000	Restaurants	Foods-Carry Out		2,500 - 9,999	
100	0 Casa Rosales	2808 Portola Dr	Santa Cruz	95062	Santa Cruz	8314626116						Restaurants	Restaurants		2,500 - 9,999	
100	0 Chili Out Cafe	860 41st Av	Santa Cruz	95062	Santa Cruz	8314770543						Restaurants	Pizza		2,500 - 9,999	
100	0 Chopstix	8249 Highway 9	Felton	95018-9710	Santa Cruz	8313359770				7	280000	Restaurants	Restaurants		2,500 - 9,999	
100	0 Ciao Bella Act II	9217 Highway 9	San Lomond	95005	Santa Cruz	8313368547						Restaurants	Restaurants			
100	0 Cliff Cafe	815 41st Av	Santa Cruz	95062	Santa Cruz	8314764424						Restaurants	Restaurants			
100	0 Cole's Bar-B-Q	770 28th Av	Santa Cruz	95062	Santa Cruz	8314761214						Restaurants	Restaurants			
100	0 Cowboy Bar & Grill	6155 Highway 9	Felton	95018-9701	Santa Cruz	8313352330	Geary	Jim	Owner	4	160000	Restaurants	Restaurants	Caterers	0 - 2,499	
100	0 Davenport Bakery Bar & Grill	PO Box 22	Davenport	95017-0022	Santa Cruz	8314239803	Hille	Amy	Manager	20	800000	Restaurants	Restaurants		0 - 2,499	
100	0 Davenport Roadhouse-The Cash	PO Box J	Davenport	95017-1009	Santa Cruz	8314264122	McDougal	Martha	President	60	2400000	Restaurants	Restaurants	Restaurants		2,500 - 9,999
100	0 Deli-Licious	21505 E. Cliff Dr	Santa Cruz	95062	Santa Cruz	8314823019						Restaurants	Restaurants		2,500 - 9,999	
100	0 Don Dulzote	6275 Highway 9	Felton	95018-9710	Santa Cruz	8313352800	Tate	Rosa	Manager	12	480000	Restaurants	Restaurants		2,500 - 9,999	
100	0 Dynasty Restaurant	3601 Portola Dr	Santa Cruz	95062	Santa Cruz	8314793388						Restaurants	Restaurants			
100	0 El Azuleo Mexican Restaurant	2904 Freedom Blvd	Watsonville	95076	Santa Cruz	8317285250						Restaurants	Restaurants		2,500 - 9,999	
100	0 El Chino Mexican Restaurant	2525 Soquel Dr	Santa Cruz	95065	Santa Cruz	8314767175						Restaurants	Restaurants			
100	0 El Chipotle Taqueria	74 Porter Dr	Soquel	95073-2427	Santa Cruz	831471048	Hernandez	Pedro	Owner	4	160000	Restaurants	Restaurants		0 - 2,499	
100	0 El Colima Restaurant	655 Capitola Rd	Royal Oaks	95076-5223	Santa Cruz	8317611241	Moran	Rosa	Owner	2	80000	Restaurants	Restaurants		0 - 2,499	
100	0 El Jardin Restaurant	230 Marigold Ave	Freedom	95062	Santa Cruz	8314779384						Restaurants	Restaurants			
100	0 El Rey Catering 2	460 7th Avenue	Santa Cruz	95062	Santa Cruz	8317680629	Gonzales	Marcela	Owner	1	40000	Restaurants	Restaurants		0 - 2,499	
100	0 Fandangos Mexican Cafe	6790 Soquel Or	Aptos	95003-3224	Santa Cruz	8314772506						Restaurants	Restaurants			
100	0 Farm Bakery & Cafe	6112 Highway 9	Felton	95018	Santa Cruz	8316840286	Boysol	Steve	Owner	45	1800000	Restaurants	Restaurants	Bakers-Retail	2,500 - 9,999	
100	0 Fidei's Mexican Food	301 Airport Blvd	Freedom	95019-2603	Santa Cruz	8317611321	Gracia	Jenny	Owner	4	160000	Restaurants	Restaurants	Gift Shops	2,500 - 9,999	
100	0 Golden Buddha	4610 Soquel Dr	Soquel	95073-2125	Santa Cruz	8314790788				6	240000	Restaurants	Restaurants		0 - 2,499	
100	0 Guang Zho Chinese Restaurant	3150 Portola Dr	Santa Cruz	95062	Santa Cruz	8314650988						Restaurants	Restaurants	Banquet Rooms	0 - 2,499	
100	0 Hanks at the Hook	80041st Av	Santa Cruz	95062	Santa Cruz	8314793862						Restaurants	Restaurants		0 - 2,499	
100	0 Happy Garden Chinese Rstnt	1980 Freedom Blvd	Freedom	95019-2837	Santa Cruz	8317284766				4	150000	Restaurants	Restaurants		0 - 2,499	
100	0 Harbor Cafe	535 7th Av	Santa Cruz	95062	Santa Cruz	8314754948						Restaurants	Restaurants		0 - 2,499	
100	0 Hole In The Wall Restaurant	257 Center Ave	Aptos	95003-4436	Santa Cruz	8316880200				6	240000	Restaurants	Restaurants		0 - 2,499	
100	0 Hong Kong Garden	14 Seascope Vlg	Aptos	95003-8100	Santa Cruz	8316883869	Gong	Venton	Manager	2	80000	Restaurants	Restaurants		0 - 2,499	
500	0 Jack In The Box	1700 Freedom Blvd	Freedom	95019-3025	Santa Cruz	8317249081				28	1120000	Restaurants	Restaurants		0 - 2,499	
500	0 KFC	150 Rancho Del Mar	Aptos	95003-3913	Santa Cruz	8316881328	Carricosa	Yesenia	Site Mana	15	600000	Restaurants	Foods-Carry Out		2,500 - 9,999	
500	0 KFC	1610 Freedom Blvd	Freedom	95019-3007	Santa Cruz	8317223302	Castillo	Cesar	Site Mana	30	1520000	Restaurants	Foods-Carry Out	Caterers	2,500 - 9,999	
100	0 Leo's Taco Bar	1710 Brommer St	Santa Cruz	95062	Santa Cruz	8314651195						Restaurants	Foods-Carry Out	Caterers	2,500 - 9,999	
100	0 Letty's Taqueria	4637 Soquel Dr	Soquel	95073-2124	Santa Cruz	8314752403				8	240000	Restaurants	Restaurants		0 - 2,499	
100	0 Little Tampico Restaurant	2605 S Main St	Soquel	95073-2409	Santa Cruz	8314754700	Kamsli	Said	Owner	25	1000000	Restaurants	Restaurants	Caterers	2,500 - 9,999	

200	0 Steve's 76	1500 Soquel Dr	Santa Cruz	95065	Santa Cruz	8314763857			Service Stations-Gasoline & Oil	Convenience Stores				
200	0 USA Gasoline	1902 Freedom Blvd	Freedom	95019-2820	Santa Cruz	8317223162		6	2784000	Service Stations-Gasoline & Oil	Service Stations-Gasoline & Oil	Petroleum Products (Whls)	0 - 2,499	
200	0 USA Gasoline	2700 41st Ave	Soquel	95073-2111	Santa Cruz	8314648351		4	1856000	Service Stations-Gasoline & Oil	Service Stations-Gasoline & Oil	Service Stations-Gasoline & Oil	0 - 2,499	
200	0 USA Gasoline	2680 Soquel Av	Santa Cruz	95062	Santa Cruz	8314763653				Service Stations-Gasoline & Oil	Convenience Stores			
200	0 Valero Corner Store	1701 Capitola Rd	Santa Cruz	95062	Santa Cruz	8314761845				Service Stations-Gasoline & Oil	Convenience Stores			
100	0 Sheepskin Outlet	5020 Soquel Dr	Soquel	95073-2402	Santa Cruz	8314764352	Rackley Dale	Owner	2	266000	Sheepskin Specialties	Sheepskin Specialties	Automobile Seatcovers Tops & Upholster	2,500 - 9,999
50	0 Fleet Feet Sports	26 Rancho Del Mar	Aptos	95003-3973	Santa Cruz	8316620886	Griffen Tom	Owner	6	864000	Shoes-Retail	Shoes-Retail	Automobile Seatcovers Tops & Upholster	2,500 - 9,999
50	0 Shoe Fetish	7542 Soquel Dr	Aptos	95003-3820	Santa Cruz	8316886500					Shoes-Retail			
50	0 Aqua Safari Scuba Center	6696 Soquel Av	Santa Cruz	95062	Santa Cruz	8314794386					Sporting Goods-Retail			
200	0 Outdoor World Inc	2720 S Rodeo Gulch Rd	Soquel	95073-2026	Santa Cruz	8314547186	Thomas Chris	President	0	0	Sporting Goods-Retail	Sporting Goods-Retail	Sporting Goods-Retail	2,500 - 9,999
50	0 Jerry's Sports	7000 Soquel Av	Santa Cruz	95062	Santa Cruz	8314651400					Sporting Goods-Retail			
50	0 Play It Again Sports	4770 Soquel Dr	Soquel	95073-2468	Santa Cruz	8314751988	Frankl Tom	Owner	7	1036000	Sporting Goods-Retail	Sporting Goods-Retail	Sporting Goods-Used	2,500 - 9,999
50	0 Ralston Rods & Tackle	6407 Highway 9	Felton	95018	Santa Cruz	8313353269					Sporting Goods-Retail			
50	0 Arrow Surf Products	1115 Thompson Av, #7	Santa Cruz	95062	Santa Cruz	8314622791					Surfboards			
100	0 Billabong Santa Cruz	4105 Portola Dr	Santa Cruz	95062	Santa Cruz	8314767873					Surfboards			
50	0 Freeline Design Surfboards	821 41st Av	Santa Cruz	95062	Santa Cruz	8314762950					Surfboards			
50	0 LA Selva Beach Surf Shop	308 Playa Blvd	La Selva Beach	95076-1781	Santa Cruz	8316940774	Kinion Todd	Owner	9	1332000	Surfboards	Surfboards	Surfboards	2,500 - 9,999
50	0 Paradise Surf Shop	3962 Portola Dr	Santa Cruz	95062	Santa Cruz	8314623880					Surfboards			
100	0 Santa Cruz Boardroom	825 41st Av	Santa Cruz	95062	Santa Cruz	8314642500					Surfboards and Skateboards			
50	0 Abbotts Thrift Shop	6184 Highway 9	Felton	95018-9704	Santa Cruz	8313350606	Buchhwehr James	Manager	15	1515000	Thrift Shops	Thrift Shops	Thrift Shops	2,500 - 9,999
2000	0 Toys R Us	1680 Commercial Wy	Santa Cruz	95065	Santa Cruz	8314794286					Toys-Retail			
50	0 Mohler & Sons Vacuum	4109 Soquel Dr	Soquel	95073-2115	Santa Cruz	8314753894	Mohler Kent	Owner	2	612000	Vacuum Cleaners-Household-Dealers	Vacuum Cleaners-Household-Dealers	Vacuum Cleaning Systems (Whls)	2,500 - 9,999
1000	0 Big Lots	1988 Freedom Blvd	Freedom	95019-2837	Santa Cruz	8317229726	Rubalcaba Blanca	Site Manag	30	3060000	Variety Stores	Department Stores	Retail Shops	2,500 - 9,999
100	0 Dollar City	10090 Highway 9	San Lomond	95005-8217	Santa Cruz	8313361000					Variety Stores			0 - 2,499
100	0 Dollar Tree	21515 E. Cliff Drive	Santa Cruz	95062	Santa Cruz	8314546766					Variety Stores			0 - 2,499
300	0 Blockbuster Video	1724 Freedom Blvd	Freedom	95018-3025	Santa Cruz	8317630795	Peno Mike	Site Manag	6	570000	Video Tapes & Discs-Renting & Leasing	Video Tapes Discs & Cassettes	Video Tapes Discs & Cassettes	2,500 - 9,999
100	0 SLV Video	9573 Highway 9	Ben Lomond	95005	Santa Cruz	8313368865					Video Tapes & Discs-Renting & Leasing			
100	0 Video USA	90 Rancho Del Mar	Aptos	95003	Santa Cruz	8316623984					Video Tapes & Discs-Renting & Leasing			
100	0 Video 9	12550 Highway 9	Boulder Creek	95008-9110	Santa Cruz	8313389515	Abed Sammy	Owner	5	875000	Video Tapes Discs & Cassettes	Video Tapes Discs & Cassettes	Video Recorders & Players-Renting	0 - 2,499
50	0 Felton Nutrition	6239 Graham Hill Rd	Felton	95018-9723	Santa Cruz	8313355633					Vitamins	Health & Diet Foods-Retail		2,500 - 9,999
200	0 Felton Pharmacy	6240 Highway 9	Felton	95018-9713	Santa Cruz	8313354461	Villa-Gomez Lisa	Manager	6	906000	Vitamins	Vitamins	Vitamins	2,500 - 9,999
50	0 Bargetto Winery	3535 N Main St	Soquel	95073-2530	Santa Cruz	8314752258	Bargetto Martin	President	45	24075000	Wineries (Mfrs)	Tasting Rooms	Wedding Chapels	2,500 - 9,999
50	0 Beauregard Tasting Room	10 Pine Flat Rd	Bonny Doon	95060	Santa Cruz	8314257777					Wineries (Mfrs)	Tasting Rooms		
50	0 Burrell School Vineyards	24060 Summit Rd	Los Gatos	95033-9290	Santa Clara	4083536290	Moulton David	Owner	20	10700000	Wineries (Mfrs)	Tasting Rooms	Vineyards	2,500 - 9,999
50	0 Halkrest Vineyards	379 Felton Empire Rd	Felton	95018-9167	Santa Cruz	8313354441	Schrumacher John	Owner	10	5350000	Wineries (Mfrs)	Organic Foods & Services		2,500 - 9,999
50	0 Loma Prieta Winery	26985 Loma Prieta Way	Los Gatos	95033-8103	Santa Clara	4083532950	Kemp Paul	Owner	3	1605000	Wineries (Mfrs)	Tasting Rooms		0 - 2,499
50	0 Regale Winery	24040 Summit Rd	Los Gatos	95033-9290	Santa Clara	4083532500					Wineries (Mfrs)	Tasting Rooms		0 - 2,499
200	0 Dear Park Wine & Spirits	783 Rio Del Mar Blvd # 27	Aptos	95003-4799	Santa Cruz	8316881228	Howell Stewart	Owner	2	646000	Wines-Retail	Wines-Retail		0 - 2,499
100	0 All Shook Up Vintage Clothing	861 41st Av	Santa Cruz	95062	Santa Cruz	8314658393					Women's Apparel-Retail			
100	0 Blue Moon Clothing Co	7558 Soquel Dr	Aptos	95003-3820	Santa Cruz	8316620914	Everett Nancy	Owner	1	158000	Women's Apparel-Retail	Women's Apparel-Retail		0 - 2,499
100	0 Cinnamon Bay Inc	6 Seascape Vlg	Aptos	95003-6100	Santa Cruz	8316851233	Janssen Heysa	Owner	4	632000	Women's Apparel-Retail	Men's Clothing & Furnishings-Retail	Swimwear & Accessories-Retail	2,500 - 9,999
100	0 Forget Me Not	275 Center Ave # A	Aptos	95003-4466	Santa Cruz	8316882787	Strickland Diane	Owner	3	474000	Women's Apparel-Retail	Women's Apparel-Retail	Women's Apparel-Retail	2,500 - 9,999
100	0 Seek and Find Vintage Collection	853 41st Av	Santa Cruz	95062	Santa Cruz	8314771497					Used Clothing			
100	0 Ivy Company	930 41st Av	Santa Cruz	95062	Santa Cruz	8314779051					Women's Apparel-Retail			
100	0 Outback Trading Co	6257 Highway 9	Felton	95018-9710	Santa Cruz	8313351076	Campbell Clare	Owner	2	316000	Women's Apparel-Retail	Women's Apparel-Retail	Gift Shops	0 - 2,499
100	0 Seventy Five-Seventy Seven	1771 Freedom Blvd	Freedom	95019 0000	Santa Cruz	8317224033					Women's Apparel-Retail			0 - 2,499
100	0 Susie's Deals	1994 Freedom Blvd	Freedom	95019-2837	Santa Cruz	8317860361	Lopez Cynthia	Site Manag	7	1106000	Women's Apparel-Retail	Women's Apparel-Retail	Women's Apparel-Retail	2,500 - 9,999
100	0 Tycoon Apparel	857 41st Av	Freedom	95062	Santa Cruz	8314758484					Women's Apparel-Retail			
137675	32800													



## RESPONSES TO COMMENT LETTERS RECEIVED

### I. Federal Agencies

No comments received.

### II. State Agencies

#### A. Governor's Office of Planning and Research, State Clearinghouse, dated March 16, 2011:

1. The letter acknowledges compliance with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA.

### III. Local Agencies

No comments received.

### IV. Private Organizations

#### A. Central Coast Sanctuary Alliance, dated March 15, 2011:

1. The commenter supports the proposed Single Use Bag Reduction Ordinance.
2. The commenter states that the proposed ordinance addresses the need to move toward reusable bags by banning plastic bags and placing a fee on paper bags so that the community will be encouraged to bring their own bags to the store.
3. The commenter also state that it is the hope of Save Our Shores and the Central Coast Sanctuary Alliance that the County moves forward with the ordinance as it is written and that it is put in place as soon as possible.

#### B. Sea Turtle Restoration Project, dated March 15, 2011:

1. The commenter supports the proposed Single Use Bag Reduction Ordinance.
2. The commenter states that plastic bags escape into storm drains, creeks and ultimately reach the Pacific coast and the sea, adding to the billions of tons of plastic which harms and kills approximately 100,000 sea turtles and other marine animals each year.
3. The commenter states: In order to stem the tide of plastic pouring into our oceans and harming endangered sea turtles in California, it is crucial that communities and governments at all levels make a commitment to reducing plastic use.
4. The commenter is pleased and encouraged that Santa Cruz County is on its way to joining the cities of San Francisco, Fairfax, Oakland, Palo

Alto, San Jose, Malibu, Los Angeles County, and Marin County by banning single-use plastic bags from stores.

**C. Defenders of Wildlife, Dated March 15, 2011:**

1. The commenter supports the proposed Single Use Bag Reduction Ordinance.
2. The commenter notes that the impact to marine birds, mammals, and countless marine wildlife can be deadly when these bags enter our oceans and, here in Monterey Bay area, the Monterey Bay National Marine Sanctuary.
3. It is the commenter's hope that the County move forward with the ordinance as it is written and that it is put in place as soon as possible.

**D. Big Sur Advocates for a Green Environment, dated March 15, 2011:**

1. The commenter supports the proposed Single Use Bag Reduction Ordinance.
2. The commenter states that the impact to marine life is deadly when we have these bags entering our Sanctuary.
3. The commenter notes that the ordinance addresses the need to move to reusable bags by banning plastic bags and placing a fee on paper bags so that the community will be encouraged to bring their own bags to the store. The county's ordinance also targets all retail stores and restaurants which makes it a comprehensive and effective ban.
4. Commenter states that it is their hope that the County move forward with the ordinance as it is written and that it is put in place as soon as possible.

**E. Oceana, dated March 15, 2011:**

1. The commenter supports the proposed Single Use Bag Reduction Ordinance.
2. The commenter notes that there are significant, documented impacts to marine life from plastic bag litter, including within the Monterey Bay National Marine Sanctuary. Single-use bags on our local beaches, and in our tributaries and oceans, are having detrimental effect on our ocean's habitat and marine life. In particular, single-use plastic bags threaten the endangered Pacific leatherback sea turtles that migrate to our coasts from Indonesia as the turtles easily mistake these bags for jellyfish, their main food source. The waters of the Monterey Bay National Marine Sanctuary are a key foraging area for endangered Pacific leatherbacks.
3. Commenter notes that their analysis and experience with the issue suggest that there are readily available, and more sustainable alternatives to single-use plastic bags and that attempts to increase

recycling of plastic bags simply do not effectively address the fundamental problem of litter.

4. The commenter states that the county's ordinance addresses the need to move toward reusable bags by banning plastic bags and placing a fee on paper bags so that the community will be encouraged to bring their own bags to the store, and also targets all retail stores and restaurants that make it a comprehensive and effective ban.

**F. American Chemistry Council, dated March 15, 2011:**

1. Comment noted. Following completion of the Environmental Review Initial Study Checklist, the County concluded that a Mitigated Negative Declaration would be prepared rather than an Environmental Impact Report. The proposed mitigation would reduce any potentially significant effect to a less than significant level.
2. Comment noted.
3. The County agrees with the reduce, reuse, recycle approach. The proposed ordinance would reduce the use of single-use plastic and paper bags within the County and encourage reusable bags. Single-use plastic shopping bags are not designed to be used multiple times as are reusable bags. The Initial Study shows that approximately 356,000 reusable shopping bags are intended to replace approximately 50,000,000 single-use plastic bags annually (see Table 5 on Page 58 of the Initial Study). This would be consistent with the reduce, reuse, recycle approach.
4. Comment noted. Section III of the Environmental Review Initial Study provides this analysis.
5. Comment noted. The proposed ordinance is not intended to increase the use of paper bags. The intent of the ordinance is to encourage the use of reusable bags in an effort to reduce the number of single-use paper and plastic bags used. A fee cannot be placed on single-use plastic carryout bags due to the requirements of AB 2449 (see Page 14 of the Initial Study). As a result, a ban has been proposed and a store charge is being proposed for paper bags.
6. Again, the intent of the proposed ordinance is not to increase the use of paper bags (see response G-5 above). The initial \$0.10 store charge and subsequent \$0.25 store charge are intended to provide enough incentive to shoppers to bring their own reusable bags to the store. Those who do not would be charged and would be given paper bags with a minimum of 40% recycled content. In addition, the ordinance provides a performance standard for monitoring the effectiveness of the ordinance (see Section 5.48.020(C) of the proposed ordinance for details (Page 19 of the Initial Study).
7. Page 43 of the Initial Study under Transportation/Traffic states, "Although there has been speculation that the elimination of plastic

carryout bags would result in an increase in delivery truck trips to the Santa Cruz region due to the increased bulk of Draft paper bags, calculations show that it would result in approximately one additional truck trip annually within the unincorporated County area.” No impact is anticipated.

8. Please see the discussion on Page 55 of the Initial Study under “Greenhouse Gas Emissions Impacts.” The data from Boustead (2007) shows that there would be an annual reduction in greenhouse gas emissions of 372 tons of CO<sub>2</sub> equivalent compared to existing conditions with the elimination of carryout plastic bag use and the anticipated minor increase of Kraft paper bag use combined with reusable bag use. A net reduction in CO<sub>2</sub> equivalent is anticipated.
9. No specific study has been sourced.
10. Comment noted. The problem is that most every plastic bag manufactured either ends up in the landfill or loose in the environment. The Environmental Protection Agency estimates that a mere 5% of plastic bags in California and nationwide are currently recycled (see response to Comment G-4).
11. Paper pulp used in the manufacturing of Kraft paper bags is derived from trees, a renewable resource. As stated by the commenter, trees sequester carbon dioxide during their lifetime prior to harvest and provide habitat for wildlife. However, plastic bags are manufactured from small resin pellets made from petroleum and natural gas, both non-renewable resources that require drilling or mining to acquire (see response to Comment G-5). The ordinance proposes that retailers provide paper bags with at least 40% recycled content. Under the proposed ordinance, paper bag use is not anticipated to increase substantially (see Page 55 of the Initial Study for a complete discussion).
12. According to the 2009 National Visible Litter Survey and Litter Cost Study, dated September 18, 2009,<sup>1</sup> “...the comparison of the 1969 and 2009 Studies shows a 61 percent decline in overall litter. This decline is reflected in the significant reduction of visible paper, glass, metal, and beverage container litter on our nation’s roadways. Conversely, the comparison shows there has been a significant increase – 165.4 percent – in visible plastic litter.” Please see response to Comment G-5, Widespread Litter and Degradation of the Urban Environment for a complete discussion of this issue. In addition, approximately 37% of paper bags nationwide are recycled.<sup>2</sup> The City of San Francisco’s Department of the Environment estimates that at least 60% of paper bags are recycled. According to StopWaste,

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<sup>1</sup> Mid Atlantic Solid Waste Consultants, 2009 National Visible Litter Survey and Litter Cost Study, September 18, 2009.

<sup>2</sup> U.S. EPA. Municipal Solid Waste in the United States, 2007 Facts and Figures. November 2008.

Alameda County currently achieves a 60-80% paper bag recycling rate.<sup>3</sup>

13. The proposed ordinance would not ban plastic products or plastic recycling. Recycling is encouraged by the County of Santa Cruz and would continue. As discussed on page 52 of the Initial Study, the County of Santa Cruz has a Zero Waste Goal (Resolution No. 440.99). "The County of Santa Cruz hereby encourages the pursuit of zero waste as a long-term goal in order to eliminate waste and pollution in the manufacture, use, storage, and recycling of materials."
14. See response to Comment G-12. Only a minor increase in paper bag use is anticipated. In addition, a very high percentage of paper bags are recycled and do not enter the landfill.
15. Implementation of the proposed ordinance would not result in a shortage of polyethylene resin. Currently only about 5-9% of all plastic bags in the U.S. are recycled. Increased recycling efforts would result in more than ample materials for increased composite lumber production.
16. As with other types of reusable items, it is possible for reusable shopping bags to become contaminated with bacteria and mold over time due to contact with food. It is up to the individual to monitor the cleanliness of their reusable bags as they would other reusable items such as kitchen utensils and towels. Reusable bags are designed to be washed when they become soiled. "Reusable bag" means either of the following: (1) A bag made of cloth or other machine washable fabric that has handles; (2) A durable plastic bag with handles that is at least 2.25 mils thick and is specifically designed and manufactured for multiple reuse."
17. Comment noted. Many of the reusable plastic bags can simply be wiped clean with a disinfectant. Cloth bags can be washed with a regular load of laundry. A substantial increase in water or energy consumption is not anticipated.

**G. Save the Plastic Bag Coalition (STPB), dated March 16, 2011:**

1. This comment does not have any relevance to the analysis within the Initial Study/Mitigated Negative Declaration (IS/MND). The information it is refuting was contained in a newspaper editorial and the rebuttal is based, in part, on another newspaper editorial. To the extent that some of these same statements directed at the editorial are reiterated in the following comments, they are responded to substantively in that context. The IS/MND has no obligation to defend the arguments made in newspaper editorials and, in addition, some of the information in the

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<sup>3</sup> StopWaste 2010. Comments provided to Green Cities California on Draft Master Environmental Assessment on Single-use and Reusable Bags.

editorial quoted above is different than the information in the IS/MND. To avoid confusion, no attempt is made to respond to this comment.

2. This comment does not have any relevance to the analysis within the IS/MND. Dr. Mark Gold's testimony to the Manhattan Beach City Council regarding "Bioplastics" is not relevant to the County of Santa Cruz proposed Ordinance. The proposed ordinance would not allow the retail distribution of single use bioplastic carryout bags.
3. Page 4 of the IS/MND states, "Globally, an estimated 500 to 1 trillion petroleum-based plastic bags are used each year, which is equal to approximately one million per minute, the production and use of which uses over 12 million barrels of oil." This statement has been revised as noted below.

As written in Assembly Bill 2449 (see page 7 of the IS/MND), "The people of the State of California do enact as follows:

SECTION 1. (a) The Legislature finds and declares all of the following: (1) On a global level, the production of plastic bags has significant environmental impacts each year, including the use of over 12 million barrels of oil, and the deaths of thousands of marine animals through ingestion and entanglement. (2) Each year, an estimated 500 billion to 1 trillion plastic bags are used worldwide, which is over one million bags per minute, and of which billions of bags end up as litter each year."

Fossil fuel use is clearly significant in the production of bags. According to Hyder Consulting (2007), single-use plastic bags, and single-reusable non-woven plastic polypropylene bags are produced through a by-product of gas or oil refining. In contrast, Kraft paper bags, cotton bags, and starch-based biodegradable bags are manufactured from renewable resources<sup>4</sup>. Even so, significant fossil fuel use is required for the manufacture of these types of bags. Manufacturing one billion super-thin plastic bags per day for one year requires 37 million barrels of oil<sup>5</sup>. Approximately 10% of U.S. oil and gas productions and imports are used in synthetic plastic production<sup>6</sup>. ExcelPlas Australia (2004) suggests that one of the main benefits of biodegradable bags is the potential for lower consumption of non-

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<sup>4</sup> Hyder Consulting (2007) Comparison of existing life cycle analyses of plastic bag alternatives. Final Report prepared by Hyder Consulting Pty Ltd., dated April 18, 2007.

<sup>5</sup> The statistic is based on a survey by the China Plastics Processing Industry Association; according to Zaleski 2008, as reported in Chan et al (2009) International Food and Agribusiness Management Review, Volume 12, Issue 4, 2009. Trade-offs between Shopping Bags Made of Non-degradable Plastics and Other Materials, Using Latent Class Analysis: The Case of Tianjin, China.

<sup>6</sup> DiGregorio, B.E. 2009. Biobased Performance Bioplastic: Mirel. Chemistry and Biology 16. January 30, 2009.

renewable resources due to a greater dependence on renewable resources such as crops<sup>7</sup>.

4. Page 6 of the IS/MND states, "Further, the Environmental Protection Agency estimates that only 5% of the plastic bags in California and nationwide are currently recycled." The following evidence for this statement has been cited. Customers may reuse the bags at home, but eventually the bags will be disposed in the landfill or recycling facility or discarded as litter. The majority of bags end up as litter or in the landfill, and even those in the landfill may be blown away as litter due to their light weight. Although some recycling facilities will handle plastic bags, most reject them because they can get caught in the machinery and cause malfunctioning, or are contaminated after use. Indeed, only approximately 5% of the plastic bags in California and nationwide are currently recycled<sup>8</sup>.

In 2006, California enacted AB 2449 (Chapter 845, Statutes of 2006), which became effective on July 1, 2007. The statute provides that stores that provide plastic carryout bags to customers must provide at least one plastic bag collection bin in an accessible spot to collect used bags for recycling. The store operator must also make reusable bags available to shoppers for purchase. AB 2449 is discussed below in the Regulatory Environment section. As of this time, there is no study of whether AB 2449 has either reduced single-use plastic bag use or resulted in an increase in the recycling rate.

5. Page 6 of the IS/MND states, "The production and disposal of plastic bags have caused significant environmental impacts, including contamination of the environment, the deaths of thousands of marine animals through ingestion and entanglement, widespread litter and degradation of the urban environment, and increased disposal costs".

#### Significant Environmental Impacts

##### *Contamination of the Environment*

A 2001 study found an average of 334,271 pieces of plastic per square mile in the North Pacific Central Gyre, which serves as a natural eddy system to concentrate material. Approximately 29 percent of the plastic pieces categorized were determined to be thin plastic films similar to those used in plastic bags. A total of 152,244 planktonic organisms weighing approximately 70 grams (dry weight) were also collected from the surface water. Plankton abundance was higher than plastic abundance in 8 out of 11 samples, with the difference being higher at night. In contrast, the mass of plastic was higher than the

<sup>7</sup> ExcelPlas Australia 2004. Centre for Design at RMIT, and NOLAN-ITU. 2004. The Impacts of Degradable Plastic Bags in Australia.

<sup>8</sup> US EPA 2005. Characterization of Municipal Solid Waste, Table 7, as reported in County of Los Angeles (2007); the LCA conducted by Boustead Associates (2007) assumes a 5.2% rate of recycling for plastic bags, based on 2005 EPA data.

planktonic mass in 6 out of 11 samples. The large ratio of plastic to plankton found in this study has the potential to affect many types of biota. Most susceptible are the birds and filter feeders that focus their feeding activities on the photic portions of the water column. Many birds have been examined and have been found to contain small debris in their stomachs, a result of mistaking plastic for food (Day *et al.*, 1985; Fry *et al.*, 1987; Ainley *et al.*, 1990; Ogi, 1990; Ryan, 1990; Laist, 1997).<sup>9</sup>

The distribution of plastic bags and other plastic debris is so abundant in the ocean that it is now a common item for nest building for numerous species of birds. However, this is another behavior that increases entanglement risks for adults and chicks of certain birds. Two species for which this behavior is common are northern gannets and double-crested cormorants. Bourne (1976) first reported the use of plastic debris in nest construction by gannets, and more recently Montevercchi (1991) reported that virtually all gannet nests sampled at colonies in eastern Newfoundland (97%, 722 of 741 nests) have plastics incorporated into them. Gannets collect nesting material almost exclusively from offshore areas, and the most common debris reported from their nests were scraps of fishing net, rope, and line. For double-crested cormorants, Podolsky and Kress (1989) reported 37% of examined nests (188 of 497) in the Gulf of Maine contained plastic materials, principally *plastic bags*, lobster pot lines, and fishing net fragments.<sup>10</sup>

To expand upon what is discussed on page 9 of the IS/MND, polyethylene resin pellets (mostly less than 5 millimeters in diameter that are the primary raw material required to manufacture HDPE and LDPE plastic bags and other products)<sup>11</sup> are widely distributed in oceans all over the world.<sup>12</sup> These plastic resin pellets also known as pre production plastic or nurdles are the raw material which is heated and chemically treated to mould or extrude plastic goods including single use plastic bags. Huge volumes of plastic resin pellets are produced and shipped around the world each year. An alarming number of these pellets are constantly being lost to the marine environment both from direct cargo loss at sea and from spillage around factories and transport routes on land. A large proportion of these land spillages eventually find their way into drainage systems

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<sup>9</sup> Moore, C. J., S. L. Moore, M. K. Leecaster, and S. B. Weisberg, 2001. A comparison of plastic and plankton in the North Pacific Central Gyre. In: *Marine Pollution Bulletin* 42, 1297-1300.

<sup>10</sup> Laist, D. W., 1997. Impacts of marine debris: entanglement of marine life in marine debris including a comprehensive list of species with entanglement and ingestion records. In: Coe, J. M. and D. B. Rogers (Eds.), *Marine Debris -- Sources, Impacts and Solutions*. Springer-Verlag, New York, pp. 99-139

<sup>11</sup> Moore, C.J., G.L. Lattin, A.F. Zellers, Measuring Effectiveness of Voluntary Plastic Industry Efforts: AMRF's Analysis of Operation Clean Sweep, in *Proceedings of the Plastic Debris Rivers to Sea Conference*, 2005.

<sup>12</sup> [www.pelletwatch.org](http://www.pelletwatch.org)



and out to sea. At sea pellets are circulated throughout the world's oceans. A survey done by S.L. Moore, et al., estimated that "approximately 106 million items, weighing 12 metric tons, occur in Orange County beaches...The three categories of plastics (pre-production plastic pellets, foamed plastics, and hard plastics) accounted for 99% of the total abundance and 51% of the total weight."<sup>13</sup>

According to the Operation Clean Sweep (OCS) Pellet Handling Manual prepared by and for the plastics industry, "In recent years and with increasing frequency, researchers have reported that seabirds, turtles and fish are ingesting a wide variety of plastic items that are killing them or affecting their health. Most of these plastics are used consumer products that have been carelessly discarded. Some of this litter is resin pellets that entered the waste stream and the oceans. When these pellets are eaten by wildlife they cannot be passed through their digestive tracts, leading to malnutrition and starvation. While consumers are responsible for the proper disposal of the products they use, the plastics industry must focus on proper containment of the products we use – plastic pellets, the basic raw material of our industry. We must prevent the pellets from getting into waterways that eventually lead to the sea."<sup>14</sup>

A 2005 study was commissioned to provide independent monitoring of the revised OCS Manual, to determine the adequacy of the voluntary best management practices in meeting the zero pellet loss goal. Ten plastic industry sites near the Los Angeles and San Gabriel rivers were monitored to study the effectiveness of Best Management Practices (BMPs). These companies comprised different specialties within the plastic industry: Bulk Transporters and Shippers, Injection Molding, Plastic Bag Manufacturing also use melted pellets and additives that are blown to stretch the plastic into thin sheeting to make plastic bags. The study area of each industrial site involved the industry property and the nearest storm drain. Two of the industrial sites had unique delivery conduit systems, a storm drain on the facility leading directly to the river or to a channel leading directly to the river. The study found that although the improvements were apparent, were not sufficient to prevent significant pellet production scrap losses to the storm drain system. The study found that the plastic bag manufacturing facility (Site 6) had spilled plastic pellets on the parking lot, by the pellet storage silos on the west and east sides of the main building, by the loading docks, covering the gravel on the railcar delivery area, on the paved machinery and equipment storage area, and next to the

<sup>13</sup> Moore, S.L., D. Gregorio, M. Carreon, S.B. Weisberg, & M.K. Leecaster. "Composition and Distribution of Beach Debris in Orange County, California." *Marine Pollution Bulletin* 42.3): 241-245,

<sup>14</sup> American Chemistry Council, undated, Operation Clean Sweep, Pellet Handling Manual, Make zero pellet loss your goal.

neighboring building on the east side of the facility. Although the study concluded that implementation of the BMPs had resulted in fewer large spills at the railroad track area, the facility continued to have a high rate of pellet loss on the ground. Many of the pellets were making their way to the storm drain system. It was concluded that samples taken in the drainage catch basin were reduced from 100,000 pellets pre BMP to 50,000 pellets post BMP. The study found plastic pellets and particles in and on rail yard gravel, combined with on site spills, to harbor 42.7 million plastic particles greater than 1mm in size capable of running off into the storm drain system prior to BMP implementation. The count after BMP implementation was 10.5 million. In all cases, facilities were unable to retain pellets on site during significant rain events resulting in significant pellet loss.<sup>15</sup>

Polyethylene resin pellets are known to accumulate pollutants from the ocean. A 2005 study that assessed plastic pellets and fragments between one and five millimeters in diameter collected from river banks and beaches in the Los Angeles and San Gabriel Rivers' Watersheds, found that all contained Polycyclic Aromatic Hydrocarbons (PAHs) and Phthalates. Nonylphenols were not analyzed; however, three chlorinated pesticides (chlordanes), and four base neutral compounds (two Chlorophenyl Phenylethers, Hexachlorobenzene, and n.Nitrosodimethylamine), were found in some samples. Thirteen grams of virgin PE pellets from a plastic bag manufacturer were analyzed and found to have no detectable PAHs or any other analytes except for phthalates, which are plastic conditioners probably added at the time of manufacture.<sup>16</sup> Many absorbed pollutants are organic compounds known as Persistent Organic Pollutants (POP's),<sup>17</sup> a growing number of which are proving to be Endocrine Disruptors – chemical compounds which interfere in differing ways and rates, with the normal functioning of organisms. While an adult affected by endocrine disrupting chemicals may not show any noticeable effects, devastating effects can occur in its offspring involving one or more of the growth, development, behavioral, reproductive and immune system processes. Organisms potentially affected by persistent organic pollutants range from invertebrates through to humans.<sup>18</sup>

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<sup>15</sup> Moore, C.J. et al., Measuring the Effectiveness of Voluntary Plastic Industry Efforts: AMRF's Analysis of Operation Clean Sweep, 2005.

<sup>16</sup> Moore, C.J, et al., A brief Analysis of Organic Pollutants Sorbed to Pre and Post-Production Plastic Particles from the Los Angeles and San Gabriel River Watersheds. Algalita Marine Research Foundation, 2005.

<sup>17</sup> Mato, Y.; Isobe, T.; Takada, H.; Kanehiro, H.; Ohtake, C.; Kaminuma, T. Plastic resin pellets as a transport medium for toxic chemicals in the marine environment. *Environ. Sci. Technol.* 2001, 35 308-324.

<sup>18</sup> United States Environmental Protection Agency. 1997. Special Report on Environmental Endocrine Disruption: An Effects Assessment and Analysis. Prepared for the Risk Assessment Forum USEPA. EPA/630/R-96/012.

Plastic resin pellets are mistaken by seabirds and other marine organisms as food or are inadvertently ingested. They are known to be ingested by many forms of sea life thus becoming a conduit into the marine food web for persistent Organic Pollutants. Japanese researchers have established that levels of POP's can range up to one million times greater on pellets than in surrounding seawater.<sup>19</sup>

*Deaths of Thousands of Marine Animals through Ingestion*

According to the Marine Mammal Commission Annual Report for 1997, Entanglement and ingestion incidents have been reported for at least 267 species, including at least 43 percent of the world's marine mammal species, at least 44 percent of the world's seabird species, and all but one of the world's sea turtle species (see Table A). Several of these are listed as endangered, threatened, or depleted (e.g., West Indian manatees, Hawaiian monk seals, northern fur seals, right whales, humpback whales, and all species of sea turtles). The vast majority of debris interaction records are from carcasses that strand on beaches or observations of animals that turn to shore to molt, breed, nest, or rest.<sup>20</sup>

The principal cause of ingestion-related deaths is blockage of digestive tracts by plastic sheeting, plastic bags, or balloons. Ingestion-related deaths are reported most frequently for sea turtles but also occur in cetaceans and manatees. Small plastic pellets and plastic fragments are also common in the stomachs of some seabird and sea turtle species; however, the effect of ingesting these items is less apparent.<sup>21 22</sup>

The Plastics Industry also clearly states in their OCS manual, "In recent years and with increasing frequency, researchers have reported that seabirds, turtles and fish are ingesting a wide variety of plastic items that are killing them or affecting their health.... Some of this litter is resin pellets that entered the waste stream and the oceans. When these pellets are eaten by wildlife they cannot be passed through their digestive tracts, leading to malnutrition and starvation."<sup>23</sup> Many of these pellets are the same polyethylene resin pellets used in the manufacture of plastic bags. Hence, they are part of the lifecycle of the plastic bag.

<sup>19</sup> Mato, Y.; Isobe, T.; Takada, H.; Kanehiro, H.; Ohtake, C.; Kaminuma, T. Plastic resin pellets as a transport medium for toxic chemicals in the marine environment. *Environ. Sci. Technol.* 2001, 35 308-324.

<sup>20</sup> Marine Mammal Commission, Annual Report to Congress, February 29, 1997.

<sup>21</sup> Marine Mammal Commission, Annual Report to Congress, February 29, 1996.

<sup>22</sup> Laist, D. W., 1997. Impacts of marine debris: entanglement of marine life in marine debris including a comprehensive list of species with entanglement and ingestion records. In: Coe, J. M. and D. B. Rogers (Eds.), *Marine Debris -- Sources, Impacts and Solutions*. Springer-Verlag, New York, pp. 99-139

<sup>23</sup> American Chemistry Council, undated, Operation Clean Sweep, Pellet Handling Manual, Make zero pellet loss your goal.

Table A Ingestion and/or Entanglement of Marine Animals by Plastic Bags and Plastic Pellets				
Species	I/E	Material	Location	Source
Green sea turtle, <i>Chelonia mydas</i>	I	Plastic Bags Plastic Bags	N. Pac.; Japan and Hawaii S. Pac.: Peru, Australia	Uchida 1990; Balazs 1980, 1985 Hirth 1971; Brown and Brown 1982; Balazs 1983, 1985
Loggerhead turtle, <i>Caretta caretta</i>	I	Plastic Bags	N. Atl.: Texas, Florida, Georgia, Virginia, Azores, and Mediterranean	Brongersma 1968; Salvador 1978; Van Nierop and den Hartog 1984; Balazs 1985; Gramentz 1988; Shoop and Ruckdeschel 1989
	I	Plastic Pellets	S. Atl.: South Africa	Hughes 1970, 1974b
Hawksbill turtle, <i>Eretmochelys imbricata</i>	I	Plastic bags, Plastic Pellets	N. Atl.: Costa Rica, Florida, and Texas	Carr and Stancyk 1975; Hildebrand 1980; Meylan 1984; Balazs 1985
Leatherback turtle, <i>Dermochelys coriacea</i>	I	Plastic Bags	N. Atl.: Netherlands, England, and eastern U.S.	Brongersma 1972; Schoelkopf 1981; Duguay et al. 1980; Fritts 1982; Balazs 1985, Sadove and Morreale 1990
	I	Plastic Bags	S. Pac.: Peru and New Zealand	Fritts 1982; Cawthorn 1985
Northern Fulmar, <i>Flumarus glacialis</i>	I	Plastic Pellets	N. Pac.: Alaska, N. Atl.	Day 1980; Robards et al., Chapter 6, this volume; Bourne 1976; Van Franeker 1985; Moser and Lee 1992
Great-winged petrel, <i>Pterodroma macroptera</i>	I	Plastic Pellets	S. Pac.: New Zealand	M. Imber (cited in Day et al. 1985)
Collared petrel, <i>Pterodroma brevipes</i>	I	Plastic Pellets	Equatorial Pacific	Spear et al., 1995
Murphy's petrel, <i>Pterodroma ultima</i>	I	Plastic Pellets	Equatorial Pacific	Spear et al., 1995
Kerguelen petrel, <i>Pterodroma brevirostris</i>	I	Plastic Pellets	S. Pac.: New Zealand, S. Ocean	S. Reed 1981, Ainley et al. 1990a
Cook's petrel, <i>Pterodroma cookii</i>	I	Plastic Pellets	S. Pac.: New Zealand, Equatorial Pacific	M. Imber (cited in Day et al. 1985), Ainley et al. 1990b
Atlantic petrel, <i>Pterodroma incerta</i>	I	Plastic Pellets	S. Atl.; Gough Is.	R.W. Furness 1985a
Soft-plumaged petrel, <i>Pterodroma mollis</i>	I	Plastic Pellets	S. Atl.; Gough Is.	R.W. Furness 1985a
Black-capped petrel, <i>Pterodroma hasitata</i>	I	Plastic Pellets	N. Atl.: N. Carolina	Moser and Lee 1992
Snow petrel, <i>Pagodroma nivea</i>	I	Plastic Pellets	S. Ocean: Antarctica	Van Franeker and Bell 1988; Ainley et al. 1990a
Blue petrel, <i>Halobaena caerulea</i>	I	Plastic Pellets	S. Pac.: New Zealand	Ryan 1985, 1987c, S. Reed 1981
Broad-billed prion, <i>Pachyptila vittata</i>	I	Plastic Pellets	S. Pac., S. Atl.: Gough Is., S. Ocean	Bourne and Imber, 1982, Ryan and Fraser, 1988, Ainley et al. 1990a
Narrow-billed prion, <i>Pachyptila salvini</i>	I	Plastic Pellets	Equatorial Pacific, S. Pac.: New Zealand	Ainley et al. 1990b, Bourne and Imber 1982
Salvin's prion, <i>Pachyptila salvini</i>	I	Plastic Pellets	S. Pac.: New Zealand	Harper and Fowler 1987
Antarctic prion, <i>Pachyptila desolata</i>	I	Plastic Pellets	S. Pac.: New Zealand	Harper and Fowler, 1987; Ryan 1990a
Fairy prion, <i>Pachyptila turtur</i>	I	Plastic Pellets	S. Pac.: New Zealand	M. Imber (cited in Day et al. 1985)
Parkinson's petrel, <i>Procellaria parkinsoni</i>	I	Plastic Pellets	S. Pac.: New Zealand	M. Imber (cited in Day et al. 1985)
Pink-footed shearwater, <i>Puffinus creatopus</i>	I	Plastic Pellets	N. Pac.: California	Baltz and Morejohn 1976; Robards et al., Chapter 6, this volume
Flesh-footed shearwater, <i>Puffinus carneipes</i>	I	Plastic Pellets	N. Pac.	Robards et al., Chapter 6, this volume
Greater shearwater, <i>Puffinus gravis</i>	I	Plastic Pellets	N. Atl., S. Atl, N. Atl.: N. Carolina	Bourne 1976; B.L. Furness 1983, Ryan 1987, Moser and Lee 1992
Wedge-tailed shearwater, <i>Puffinus pacificicus</i>	I	Plastic Pellets	N. Pac.: Hawaiian Is.	Fry et al. 1987; Sileo et al. 1990b
Sooty shearwater, <i>Puffinus griseus</i>	I	Plastic Pellets	N. Pac., S. Pac	Ogi 1990; DeGange and Newby 1980; Ainley et al. 1990b
Short-tailed shearwater, <i>Puffinus auricularis</i>	I	Plastic Pellets	N. Pac., S. Pac.	Day 1980; Ogi 1990; Ainley et al. 1990b

Table A				
Ingestion and/or Entanglement of Marine Animals by Plastic Bags and Plastic Pellets				
Species	I/E	Material	Location	Source
Little shearwater, <i>Puffinis assimilis</i>	I	Plastic Pellets	S. Atl.: Gough Is.	R.W. Furness 1985a
Manx shearwater, <i>Puffinis puffinis</i>	I	Plastic Pellets	N. Atl.: N. Carolina	Moser and Lee 1992; R.W. Furness 1985b
Cory's shearwater, <i>Calonectris deomedea</i>	I	Plastic Pellets	N. Atl.: N. Carolina	Moser and Lee 1992
White-faced storm-petrel, <i>Pelagodroma marina</i>	I	Plastic Pellets	S. Pac.: Chatham Is.; Equatorial Pacific; Ind. O.: Marion Is.	Bourne and Imber 1982; Ainley et al. 1990b; Ryan 1987a
Blue-footed booby, <i>Sula dactylatra</i>	I	Plastic Pellets	N. Pac.: Hawaiian Is.	Anonymous 1981
Heermann's gull, <i>Larus heermanni</i>	I	Plastic Pellets	N. Pac.: California	Baltz and Morejohn 1976
Great black-backed gull, <i>Larus marinus</i>	I	Plastic Bags	N. Atl.: Maine	Day et al. 1985
Black-legged kittiwake, <i>Rissa tridactyla</i>	I	Plastic Pellets	N. Pac.: California	Baltz and Morejohn 1976; Robards et al., Chapter 6, this volume
Red-legged kittiwake, <i>Rissa brevirostris</i>	I	Plastic Pellets	N. Pac: Alaska	Day 1980
Crested tern, <i>Sterna bergii</i>	E	Plastic Bag	S. Atl.: S. Africa	Ryan 1990a
Thick-billed murre, <i>Uria lomvia</i>	I	Plastic Pellets	N. Pac.: Alaska	Day 1980
Cassin's auklet, <i>Ptychoraphus aleuticus</i>	I	Plastic Pellets	N. Pac.: Alaska	Day 1980; Robards et al., Chapter 6, this volume
Parakeet auklet, <i>Cyclorhynchus psittacula</i>	I	Plastic Pellets	N. Pac.	Day 1980; Pettit et al. 1981
Crested auklet, <i>Aethia cristatella</i>	I	Plastic Pellets	N. Pac.	Robards et al., Chapter 6, this volume
Tufted puffin, <i>Fratercula cirrhata</i>	I	Plastic Pellets	N. Pac.: Alaska	Day 1980
Horned puffin, <i>Fratercula corniculata</i>	I	Plastic Pellets	N. Pac.: Alaska	Day 1980; Robards et al., Chapter 6, this volume
Pigmy sperm whale, <i>Kogia simus</i>	I	Plastic Bags	N. Atl.: S. Carolina, Florida, Texas	Charleston Museum and U.S. Natl. Mus. (cited in Walker and Coe 1990); Tarpley 1990
Gervais's beaked whale, <i>Ziphius cavirostris</i>	I	Plastic Bags	N. Atl.: New Jersey, N. Carolina	U.S. Natl. Mus. (cited in Walker and Coe 1990)
Rough-toothed dolphin, <i>Steno bredanensis</i>	I	Plastic Bag	N. Pac.: Hawaii	U.S. Natl. Mus. (cited in Walker and Coe 1990)
Pacific white-sided dolphin, <i>Lagenorhynchus obliquidens</i>	I	Plastic Bag	N. Pac.: California	Caldwell et al. 1965; Cowen et al. 1986; Walker and Coe 1990
Common dolphin, <i>Delphinus delphis</i>	I	Plastic Bag	N. Pac.: California	Walker and Coe 1990; Los Angeles Cty. Museum (cited in Walker and Coe 1990)
Bottlenose dolphin, <i>Tursiops truncatus</i>	I	Plastic Bag	No. Pac.: California	Walker and Coe 1990; Schwartz et al. 1992
Risso's dolphin, <i>Grampus griseus</i>	I	Plastic Bag	N. Atl.: Massachusetts, France	U.S. Natl. Mus. (cited in Walker and Coe 1990); A. Collet, personal communication
Striped dolphin, <i>Stenella coeruleoalba</i>	I	Plastic Bag	N. Atl.: N. Carolina	U.S. Natl. Mus. (cited in Walker and Coe 1990)
Northern right whale dolphin, <i>Lissodelphis borealis</i>	I	Plastic Bag	N. Pac.: California	Walker and Coe 1990
Antarctic fur seal, <i>Arctocepalus gazelle</i>	E	Plastic Bags	S. Atl.: South Georgia	Bonner and McCann 1982; Croxall et al. 1990
West Indian manatee, <i>Trichechus manatus</i>	I	Plastic Bags	N. Atl.: Florida, Antilles	Back and Barros 1991
White perch, <i>Roccus americanus</i>	I	Plastic pellets	Eastern N. Atl.	Carpenter et al. 1972; Day 1988
Sea robin, <i>Prionotus evolans</i>	I	Plastic Pellets	Eastern N. Atl.	Carpenter et al. 1972; Day 1988

Notes: I = Ingestion; E = Entanglement  
Source: Laist, D. W. 1997.

*Widespread Litter and Degradation of the Urban Environment*

According to the 2009 National Visible Litter Survey and Litter Cost Study, dated September 18, 2009, <sup>24</sup> "...the comparison of the 1969 and 2009 Studies shows a 61 percent decline in overall litter. This decline is reflected in the significant reduction of visible paper, glass, metal, and beverage container litter on our nation's roadways. Conversely, the comparison shows there has been a significant increase – 165.4 percent – in visible plastic litter." See Table B below.

Table B Comparison of 1969 and 2009 Study Results: Visible Litter on Rural Interstates and Primary Roads <sup>1</sup>	
Material	Change in Litter
Paper	-78.9%
Metal	-88.2%
Plastic	+165.4%
Misc.	+13.1%
Glass	-86.4%
<b>Total</b>	<b>-61.1%</b>
Beverage Containers <sup>2</sup>	-74.4%

Notes:  
 [1] The results in this table are based on a comparison of the results of the 1969 and 2009 National Litter Studies. In order to enable reasonable comparisons, the 1969 Study data was statistically adjusted to capture only the first 15 feet of the right-of-way, and results were also normalized to account for the 50 percent growth in population that occurred from 1969 to 2008.  
 [2] Beverage containers were segregated in both the 1969 and 2009 Studies and are shown separately.  
 Source: 2009 National Visible Litter Survey and Litter Cost Study, 2009.

The 2009 survey results also showed that there was an average of 46 items per thousand square feet of litter (large and small items combined) at retail areas. The average retail area of the sites measured for this study was 2,621 square feet. Table C breaks down the ten most commonly occurring litter items at retail areas. Plastic bags are listed behind cigarette butts, confection (candy wrappers), other paper, and paper fast-food litter as the most common litter documented near retail areas. It should be noted that Kraft paper bags are not a subset of "other paper."

<sup>24</sup> Mid Atlantic Solid Waste Consultants, 2009 National Visible Litter Survey and Litter Cost Study, September 18, 2009.

Table C Top 10 Most Commonly Occurring Litter Items at Retail Areas (Items/1,000 sq ft)	
Litter	Number of Items
Cigarette Butts	17
Confection	15
Other Paper	5
Paper Fast-Food Service Items	5
<i>Plastic Bags</i>	3
Other Tobacco-Related	3
Other Plastic	3
Newspaper & Inserts	3
Office Paper & Discarded Mail	2
Other Metal & Foil Packets	2

Source: 2009 National Visible Litter Survey and Litter Cost Study, 2009.

#### *Increased Disposal Costs*

Often called beach litter, marine debris is a major problem on beaches and in coastal waters, estuaries, and oceans. Close to 80% of debris is washed, blown, or dumped from shore, while 20% is from recreational boats, ships, fishing vessels, and ocean platforms. Most marine debris is man-made and slow to degrade, such as cigarette butts, soda cans, *plastic bags*, and fishing gear. Plastic makes up about 60% of the debris found on beaches. The increase in the use of various kinds of plastic as durable, lightweight packaging has heightened the need for proper management and disposal. The U.S. Army Corps of Engineers spends \$ 9.4 million annually to remove drifting and floatable debris from the New York/New Jersey Harbor alone.<sup>25</sup>

In addition, plastic bags cost municipal recycling programs millions each year, when bags jam sorting equipment at recycling facilities. Last year, work stoppages caused by plastic bags jamming equipment at recycling centers cost the City of San Jose approximately \$1 million. In addition, the City of San Jose spends \$3 million per year on various litter abatement programs, not including volunteer hours, VTA and CalTrans costs.<sup>26</sup> Similar problems occur with County of Santa Cruz sorting equipment, although the actual cost to the County is not known.

- Concerns about the potential chemical impacts of plastic in the ocean are two-fold: besides the potential impacts of releases of additives that were part of its original formulation, there are the potential impacts of

<sup>25</sup> U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Public and Constituent Affairs, *Turning to the Sea: America's Ocean Future* (1999)

<sup>26</sup> Staff Report to City of San Jose Transportation and Environment Committee. February 2, 2009.

releases of persistent, bio-accumulating and toxic substances (PBTs) that have accumulated in plastic particles over time.

The first concern relates to some of the compounds used in the manufacture of plastics, such as nonylphenol, phthalates, bisphenol A (BPA) and styrene monomers, as these can have adverse health effects at high concentrations. This may include impacts on the endocrine system involved in regulating hormone balance. Some studies have suggested that such effects might be expected on land and in freshwater ecosystems (Teuten et al. 2009). In contrast, an analysis of BPA monitoring data concluded that adverse effects would only occur to a very limited extent in highly industrialized areas (Klecka et al. 2009). The degree to which these compounds persist in the marine environment and affect marine organisms is not well quantified by scientists, and further work is needed to assess the potential impact.

The second concern relates to the accumulation of PBTs in small plastic particles (Box 3). All kinds of plastic debris, from nets and other fishing gear to the thousands of different consumer items that find their way to the ocean, break down into fragments that can sorb PBTs that are already present in seawater and sediments (Mato et al. 2001, Rios et al. 2007, Macfadyen et al. 2009). PBTs include polychlorinated biphenols (PCBs), polyaromatic hydrocarbons (PAHs), hexachlorocyclohexane (HCH) and the insecticide DDT, together with other Persistent Organic Pollutants (POPs) that are covered under the Stockholm Convention (Stockholm Convention on Persistent Organic Pollutants 2011). Many of these pollutants, including PCBs, cause chronic effects

7. Page 6 of the Initial Study and the proposed ordinance state: "Plastic bits absorb dangerous compounds such as dichlorodiphenyldichloroethylene (DDE), Polychlorinated Biphenyl (PCB), and other toxic materials present in ocean water. Plastics have been found to concentrate these toxic chemicals at levels of up to one million times the levels found in seawater. Plastic bits have displaced plankton in the Pacific Gyre."

*Absorption of Dangerous Compounds in Plastic*

According to a 2009 study conducted by the Philosophical Transactions of the Royal Society, Plastics are considered to be biochemically inert materials that do not interact with the endocrine system because of their large molecular size, which prohibits their penetration through the cell membrane. However, plastic debris present in the marine environment (marine plastics) carry chemicals of smaller molecular size (MW, 1000). These chemicals can penetrate into cells, chemically interact with biologically important molecules and may disrupt the endocrine system. Such chemicals are categorized



into two groups: (i) hydrophobic chemicals that are adsorbed from surrounding seawater owing to affinity of the chemicals for the hydrophobic surface of the plastics and (ii) additives, monomers and oligomers of the component molecules of the plastics.<sup>27</sup>

Sorption and desorption are essential fate processes governing the distribution, persistence and ecological impact of hydrophobic anthropogenic contaminants in terrestrial and aquatic systems. Anthropogenic contaminants such as alkylbenzenes, chlorinated hydrocarbons, polycyclic aromatic hydrocarbons (PAHs) and PCBs are examples of compounds that will probably associate with sorbent organic matter (SOM) in the environment. The association of hydrophobic organic contaminants (HOCs) with SOM retards their transport and reduces their availability for biological and chemical transformation. Traditionally, the organic fraction of soils and sediments was considered to be the most important form of sorbent organic matter (SOM) in the environment, but recent studies documented the importance of plastics in sediments and debris collected from the marine environment (Colton et al. 1974; Mato et al. 2001; Ng & Obbard 2006; Rios et al. 2007). Hydrophobic organic contaminants were shown to have greater affinity for a range of plastics (polyethylene, polypropylene, PVC) compared with natural sediments (Teuten et al. 2007) and were detected on plastic pellets collected from the marine environment (Mato et al. 2001; Rios et al. 2007).<sup>28</sup>

The hydrophobic surfaces of the resin pellets accumulate other chemicals in addition to PCBs. So far, 2,20-bis(p-chlorophenyl)-1,1,1-trichloroethane (DDT) and its metabolites (DDE and DDD), hexachlorinated hexanes (HCHs), PAHs and hopanes have been detected in beached resin pellets. Interesting, regional distributions were observed. For example, higher concentrations of HCHs and DDTs were detected in South Africa and northern Vietnam, respectively, probably because of the current use of these chemicals as pesticides in these areas. These regional differences in contaminant concentrations in the resin pellets imply that ecological risks associated with the contaminants adsorbed to marine plastics will also vary among the areas.<sup>29</sup>

Considering potential effects on the marine ecosystem, plastic fragments, including microscopic fragments, are possibly more important than resin pellets because fragments are more abundant

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<sup>27</sup> Teuten, E. L., et al., Transport and release of chemicals from plastics to the environment and to wildlife, *Philosophical Transactions of the Royal Society, Biological Sciences*, 2009, 364, 2027-2045.

<sup>28</sup> Teuten, E. L., et al., Transport and release of chemicals from plastics to the environment and to wildlife, *Philosophical Transactions of the Royal Society, Biological Sciences*, 2009, 364, 2027-2045.

<sup>29</sup> Teuten, E. L., et al., Transport and release of chemicals from plastics to the environment and to wildlife, *Philosophical Transactions of the Royal Society, Biological Sciences*, 2009, 364, 2027-2045.

among marine plastic debris (e.g. Moore et al. 2001; McDermid & McMullen 2004; see also Barnes et al. 2009; Ryan et al. 2009). Similar to resin pellets, hydrophobic contaminants sorb to marine plastic fragments. Concentrations of various pollutants were detected in plastic fragments collected from a beach near Tokyo, Japan and from the North Central Pacific Gyre (approx. 1000 km off the west coast of the USA). Floating plastic fragments were collected from the North Central Pacific Gyre using a neuston net. The plastic fragments were sorted, and polyethylene fragments with various shapes and sizes ranging from 1 x 10 x 20 to 31 x 35 x 35 mm were extracted with dichloromethane by Soxhlet for analysis. To evaluate variability, several pools were analyzed for each beach. As observed with the resin pellets, PCBs, DDE and PAHs were detected in plastic fragments from both areas.<sup>30</sup>

Concentrations of contaminants in polyethylene fragments were higher on the Japanese coast (PCBs: 12–254 ng g<sup>-1</sup>; DDE: 0.2–276 ng g<sup>-1</sup>; PAHs: 60–9370 ng g<sup>-1</sup>) than those in the Central Gyre (PCBs: 1–23 ng g<sup>-1</sup>; DDE: 0.1–4.7 ng g<sup>-1</sup>; PAHs: 100–959 ng g<sup>-1</sup>). This difference can be explained by regional differences in seawater concentrations of the contaminants (i.e. coast versus open ocean), since these compounds enter the aquatic environment predominantly from terrestrial runoff. Rios et al. (2007) reported similar concentrations of PCBs, DDE and PAHs in marine plastics (both resin pellets and fragments) collected from a wide variety of Pacific Ocean locations including the North Pacific Gyre, California and Hawaii. They also detected DDT, DDD, HCHs and n-alkanes.

#### *Toxic Chemicals Absorbed by Plastic Relative to Seawater*

Japanese researchers have established that levels of Persistent Organic Pollutants (POP's) can range up to one million times greater on plastic pellets than in surrounding seawater.<sup>31</sup>

#### *Plastic Bits in the Pacific Gyre*

A 2001 study found an average of 334,271 pieces of plastic per square mile in the North Pacific Central Gyre, which serves as a natural eddy system to concentrate material. Approximately 29 percent of the plastic pieces categorized were determined to be thin plastic films similar to those used in plastic bags. A total of 152,244 planktonic organisms weighing approximately 70 grams (dry weight) were also collected from the surface water. Plankton abundance was higher than plastic abundance in 8 out of 11 samples, with the difference being higher at night. In contrast, the mass of plastic was higher than the

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<sup>30</sup> Teuten, E. L., et al., Transport and release of chemicals from plastics to the environment and to wildlife, Philosophical Transactions of the Royal Society, Biological Sciences, 2009, 364, 2027-2045.

<sup>31</sup> Mato, Y.; Isobe, T.; Takada, H.; Kanehiro, H.; Ohtake, C.; Kaminuma, T. Plastic resin pellets as a transport medium for toxic chemicals in the marine environment. *Environ. Sci. Technol.* 2001, 35 308-324.

planktonic mass in 6 out of 11 samples. The large ratio of plastic to plankton found in this study has the potential to affect many types of biota. Most susceptible are the birds and filter feeders that focus their feeding activities on the photic portions of the water column. Many birds have been examined and have been found to contain small debris in their stomachs, a result of mistaking plastic for food (Day *et al.*, 1985; Fry *et al.*, 1987; Ainley *et al.*, 1990; Ogi, 1990; Ryan, 1990; Laist, 1997).<sup>32</sup>

8. Page 7 of the Initial Study states, "Controlling the release of plastic bags into the environment is one of the more challenging problems because only 5% are currently recycled (U.S. EPA 2005). Much of the remaining 95% are either landfilled, become litter on roadsides and beaches, or end up in the marine environment where they choke wildlife and release toxic chemicals into the ocean.

The text should be revised to read "Controlling the release of plastic bags into the environment is one of the more challenging problems because only 9% are currently recycled (U.S. EPA 2008). Much of the remaining 91% are either landfilled, become litter on roadsides and beaches, or end up in the marine environment where they choke wildlife and release toxic chemicals into the ocean."

Please see response to number 5 above for a discussion of plastic litter on roadsides and beaches, and in the marine environment.

9. Results of more than 10 years of volunteer beach cleanup data indicate that 60 to 80 percent of beach debris comes from land-based sources. And debris in the marine environment means hazards for animals and humans. Plastic marine debris affects at least 267 species worldwide, including 86 percent of all sea turtle species, 44 percent of all sea bird species, and 43 percent of marine mammal species<sup>33</sup>.

Entanglement in debris also appears far more likely to kill animals than does ingestion, and virtually all animals that are unable to free themselves quickly probably die eventually from related effects (Laist 1996a). Although most entanglements involve derelict fishing gear, monofilament line, netting, and strapping bands, the most commonly ingested materials are plastic bags and small pieces of hard plastic.<sup>34</sup>

Also see discussion under response to number 5 above.

<sup>32</sup> Moore, C. J., S. L. Moore, M. K. Leecaster, and S. B. Weisberg, 2001. A comparison of plastic and plankton in the North Pacific Central Gyre. In: *Marine Pollution Bulletin* 42, 1297-1300.

<sup>33</sup> Laist, D. W., 1997. Impacts of marine debris: entanglement of marine life in marine debris including a comprehensive list of species with entanglement and ingestion records. In: Coe, J. M. and D. B. Rogers (Eds.), *Marine Debris -- Sources, Impacts and Solutions*. Springer-Verlag, New York, pp. 99-139

<sup>34</sup> Laist, D. W., J. M. Coe, and K. J. O'Hara. 1999. *Marine Debris Pollution*. Pp 342-366 in J. R. Twiss, Jr. and R. R. Reeves (eds.) *Conservation and Management of Marine Mammals*. Smithsonian Institution Press. Washington, D.C.

10. The commenter questioned the accuracy of the following statement on page 29 of the Initial Study, "According to the International Coastal Clean-up Report (2005), 2.2% of all animals found dead during the 2004 survey had been entangled in plastic bags (Ocean Conservancy, 2009)."

The statement should read as follows, "According to the International Coastal Cleanup Report (2011), approximately 10% of all wildlife entanglements found during international coastal cleanup efforts over the last 25 years had been entangled in plastic bags (Ocean Conservancy, 2011)."<sup>35</sup>

11. Please see the response to comment number G-5 above.
12. Please see the responses to comment numbers G-5 and G-7 above.
13. The source of the data is from the Save Our Shores web site (see link below). The commenter states that 19,080 plastic bags removed from the marine and riverine environment is "unremarkable." The principal cause of ingestion-related deaths is blockage of digestive tracts by plastic sheeting, plastic bags, or balloons. Ingestion-related deaths are reported most frequently for sea turtles but also occur in cetaceans and manatees. Small plastic pellets and plastic fragments are also common in the stomachs of some seabird and sea turtle species; however, the effect of ingesting these items is less apparent.<sup>36</sup><sup>37</sup> The removal of 19,080 plastic bags (and counting) from the environment has reduced the number of entanglements and ingestion-related impacts on wildlife (see response to comment number G-5). The current total as of May 2011 is 26,000 plastic bags.

<http://saveourshores.org/volunteer/beach-river-cleanups.php>

14. Although it is encouraging to see that a company such as Hilex is beginning to create HDPE plastic resin pellets out of recycled HDPE plastic grocery bags, the commenter does not provide a figure for the percentage of plastic bags produced that are recycled back into plastic bags. HDPE pellets can be turned into anything made from HDPE plastic.
15. The commenter disagrees with the statement provide by the Californians Against Waste on page 6 and 7 of the Initial Study. The commenter cites cleanup costs sourced by the Earth Resources Foundation. No evidence to support the cleanup costs is provided. The commenter references Exh. SC115. However, this attachment sourced from the Earth Resources Foundation also provides no

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<sup>35</sup> Coastal Conservancy, 2011. Tracking Trash, 25 Years of Action for the Ocean. 2011 Report.

<sup>36</sup> Marine Mammal Commission, Annual Report to Congress, February 29, 1996.

<sup>37</sup> Laist, D. W., 1997. Impacts of marine debris: entanglement of marine life in marine debris including a comprehensive list of species with entanglement and ingestion records. In: Coe, J. M. and D. B. Rogers (Eds.), Marine Debris -- Sources, Impacts and Solutions. Springer-Verlag, New York, pp. 99-139

evidence supporting the cleanup cost numbers. Also see response to comment number G-5.

#### 16. CEQA Requirements.

Several court cases are cited by the commenter, which are not relevant to the project. The commenter stated "In issuing the Negative Declaration, the County is presumably relying on Pub. Res. Code §21080(c)(1) and Guidelines §15061(b)(3), which is known as the 'Common Sense Exemption' where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA."

The commenter is confusing the preparation of a Mitigated Negative Declaration under Public Resources Code §15070 with the issuance of a Categorical Exemption. This statement is incorrect as the County has prepared an Initial Study and Mitigated Negative Declaration for the Single-use Bag Reduction Ordinance and does not state that the proposed ordinance is exempt from CEQA.

17. The commenter states, "STPB Objects to the Negative Declaration on the ground that the increase in the number of paper bags and reusable bags may have a significant negative impact on the environment."

#### The 1990 Franklin Report

It should be noted that the "Franklin Report" is now 21 years old and was commissioned by the plastic bag industry. The report was prepared for the Council for Solid Waste Solutions, a Washington D.C. based organization that was sponsored by plastics manufacturers. It claimed that its purpose was to promote recycling of plastics products. In reality, its mission was to promote public acceptance of plastic products, many of which cannot be economically recycled. The group later evolved into the American Plastics Council, which is now the American Chemistry Council.<sup>38</sup> In addition, Robert Hunt, a vice president of Franklin Associates, acknowledged that the study did not fully analyze the relative environmental impacts of the materials. "The study addresses the issue of volume," he said, "but it doesn't address the issue of how long it takes things to degrade."<sup>39</sup>

Although the Franklin Report provides interesting information on energy use of paper versus plastic bag production as of 20 years ago, it is not relevant to the proposed ordinance. In addition, it assumes that 15 percent of all paper and plastic bags will be incinerated. No incineration occurs in Santa Cruz County. It also lacks the significant impacts associated with HDPE and LDPE resin pellets used in the manufacturing process (see response to comment number G-5). The

<sup>38</sup> 2005-2006 Board of Directors Bios", American Society of Association Executives, access March 2008.

<sup>39</sup> New York Times, September 22, 1990. Consumer's World; Live-Cycle Studies: Imperfect Science.

main fact that is lacking in the application of the Franklin Report is the change in behavior demonstrated by several programs around the world. Placing a store charge on paper bags would significantly reduce their demand, and increase the demand for reusable bags. The following is stated on pages 55 and 56 of the Initial Study:

Although programs to eliminate or reduce single-use disposable bags have been implemented all over the world, there are variations in the programs. The most well known example is the country of Ireland, which placed a charge on single-use plastic carryout bags in 2002. As a result of the charge, the use of single-use plastic bags was reduced by 90% almost immediately. Additionally, surveys completed in 2003 indicated that approximately 90% of consumers were using reusable bags, so it does not appear that there was a dramatic shift to paper bag use. Individual stores in Australia and Canada that charge for single-use plastic bags have experienced reductions of 83 and 97%, respectively. In recent follow-up to a charge on single-use carryout bags enacted in the District of Columbia, a \$0.05 charge for all single-use bags resulted in an immediate substantial reduction in their use during the first month. District staff estimates that the reduction is in the 50-80% range for both paper and plastic single-use carryout bags (Weise 2010).

Taiwan introduced its "Restricted Use Policy on Plastic Shopping Bags" in 2002. The policy does not mandate a particular level of levy. Retailers have the ability to set and retain the levy per plastic bag. Before the introduction of the levy, the plastic shopping bag usage in Taiwan was about 2.5 bags/person/day. After the introduction of the levy, the plastic shopping bag usage dropped by 80% in the first year, but slightly rebounded subsequently (Hong Kong Legislative Council, 2009).

A survey of residents of the City of San Jose, California conducted in the spring/summer of 2010 did indeed verify that a higher charge on single-use paper bags and a ban on single-use plastic bags would increase customers' use of reusable bags. But the survey also identified a very high level of initial participation even with a \$0.10 charge. Of those responding to the survey, 81% indicated they would bring reusable bags for shopping if plastic bags were banned and recycled content paper bags cost \$0.10. With a \$0.25 charge on paper bags, 90% of the survey respondents would bring reusable bags (City of San Jose, 2010). This supports the County's assumptions in drafting the proposed ordinance that the environmentally aware citizens of Santa Cruz County would respond positively to the proposed ordinance. Based on these results, it is anticipated that the number of single-use paper bags used in the unincorporated County may be substantially reduced when a store charge is imposed. As a result, an increase in energy use would not occur.

In addition, it is anticipated that with the anticipated reduction in paper bag use, and the County's Curbside Recycling policy, there would be no increase in solid waste. Page 63 of the Initial Study states, "The proposed project may actually reduce the amount of solid waste generated in the county through the increased use of reusable carryout bags and the reduction of disposable paper and plastic carryout bags. Therefore, no adverse impact to solid waste facilities is anticipated from project implementation."

Implementation of the proposed ordinance would actually result in a net decrease in greenhouse gas emissions. Table 5 of the Initial Study shows that using the data from Boustead (2007)<sup>40</sup>, there would be an annual reduction in greenhouse gas emissions of 372 tons of CO<sub>2</sub> equivalent compared to the existing conditions. The subsequent increase from \$0.10 to \$0.25 proposed by the ordinance would likely result in the further reduction of single use paper bag use, further reducing CO<sub>2</sub> equivalent emissions.

Furthermore, according to the Ecobilan study (2004), paper bags have 14 times the impact of HDPE single-use plastic bags on eutrophication (e.g., nitrate and phosphate emissions into water that stimulate excessive growth of algae and other aquatic life) as a result of their manufacturing process. Reusable LDPE plastic bags have 2.8 times the impact when used only once. In Table 1 of the Initial Study, the HDPE plastic bag has been given a score of 1.0, the Kraft paper bag, a score of 14, and the reusable LDPE plastic bag, a score of 0.06 (assumes 50 uses annually). When considering an anticipated increase in Kraft paper bag use of 5.5 million bags annually with the addition of approximately 750,000 reusable bags annually under the proposed ordinance, the collective increase in eutrophication of water bodies during their life cycle using Ecobilan (2004) methodology would be roughly 150% of the current rate of generation to supply 50,000,000 plastic bags to the unincorporated county annually (see Attachment 2). Although shopping bags are not produced in the unincorporated county, this would be roughly a 50% increase in the eutrophication of water bodies. The incremental increase in water quality impacts, should they occur, would not be significant at a paper bag manufacturing plant that meets current national Clean Water Act standards for water discharged back into the environment. Therefore, implementation of the proposed ordinance would not result in significant adverse impacts to water supply or water quality.

Also see response to Comment G-5 regarding resin pellets used in plastic bag production and their significant impact to the marine environment.

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<sup>40</sup> Boustead Consulting and Associates, Ltd., 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper. Prepared for the Progressive Bag Alliance.

The 2005 Scottish Report

Please see responses above for the 1990 Franklin Report.

It should be noted that STPB fails to cite the section of the study that is most relevant to the proposed ordinance. They are citing the conclusions of scenario 1A that includes placing a levy of 10 pence on plastic but not paper bags. Scenario 2A proposes a levy of 10 pence on both plastic and paper bags, covering all businesses. This is more relevant to the County's proposed ordinance. Plastic bags would be banned and a store charge would be placed on paper bags. Under scenario 2A, where the levy is applied to paper as well as plastic carrier bags, the consumption of water, emission of greenhouse gases, eutrophication of water bodies and production of solid waste are significantly reduced. This is because paper bags have a high score in these environmental categories relative to plastic bags. The proposed County of Santa Cruz ordinance would also result in a reduction under these categories.

The 2007 Boustead Report

It should be noted that the "Boustead Report" was also commissioned by the plastic bag industry. The report was prepared for the Progressive Bag Alliance. The Progressive Bag Alliance (whose name was later changed to the Progressive Bag Affiliates, or PBA) was founded in 2005 and is a division of the American Chemistry Council. Membership includes the four largest plastic bag manufacturers in America.

Please see responses above for the 1990 Franklin Report.

The Boustead report claims to accurately analyze the environmental impacts of plastic bags from cradle to grave. However, it has chosen not to include one major step in the life cycle of single use polyethylene plastic bags. The use of polyethylene resin pellets in the extrusion process of making plastic bags is resulting in significant impacts to the world's rivers, streams and oceans. This step is documented in detail in the response to Comment number G-5.

To expand upon what is discussed on page 9 of the IS/MND, polyethylene resin pellets (mostly less than 5 millimeters in diameter that are the primary raw material required to manufacture HDPE and LDPE plastic bags and other products)<sup>41</sup> are widely distributed in oceans all over the world.<sup>42</sup> These plastic resin pellets also known as pre-production plastic or nurdles are the raw material that is heated and chemically treated to mould or extrude

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<sup>41</sup> Moore, C.J., G.L. Lattin, A.F. Zellers, Measuring Effectiveness of Voluntary Plastic Industry Efforts: AMRF's Analysis of Operation Clean Sweep, in *Proceedings of the Plastic Debris Rivers to Sea Conference*, 2005.

<sup>42</sup> [www.pelletwatch.org](http://www.pelletwatch.org)



plastic goods including single use plastic bags. Huge volumes of plastic resin pellets are produced and shipped around the world each year. An alarming number of these pellets are constantly being lost to the marine environment both from direct cargo loss at sea and from spillage around factories and transport routes on land. A large proportion of these land spillages eventually find their way into drainage systems and out to sea. At sea pellets are circulated throughout the world's oceans. A survey done by S.L. Moore, et al., estimated that "approximately 106 million items, weighing 12 metric tons, occur in Orange County beaches...The three categories of plastics (pre-production plastic pellets, foamed plastics, and hard plastics) accounted for 99% of the total abundance and 51% of the total weight."<sup>43</sup>

According to the Operation Clean Sweep (OCS) Pellet Handling Manual prepared by and for the plastics industry, "In recent years and with increasing frequency, researchers have reported that seabirds, turtles and fish are ingesting a wide variety of plastic items that are killing them or affecting their health. Most of these plastics are used consumer products that have been carelessly discarded. Some of this litter is resin pellets that entered the waste stream and the oceans. When these pellets are eaten by wildlife they cannot be passed through their digestive tracts, leading to malnutrition and starvation. While consumers are responsible for the proper disposal of the products they use, the plastics industry must focus on proper containment of the products we use – plastic pellets, the basic raw material of our industry. We must prevent the pellets from getting into waterways that eventually lead to the sea."<sup>44</sup>

The Boustead report neglects to mention these significant worldwide impacts to the environment in their life cycle assessment resulting from the production of single use HDPE plastic bags. The Boustead report also fails to analyze the effects of using reusable bags as proposed by the ordinance. As a result, it is not a valid comparison and should not be used as a credible reference.

Implementation of the proposed ordinance would result in a net decrease in greenhouse gas emissions. Table 5 of the Initial Study shows that using the data from Boustead (2007)<sup>45</sup>, there would be an annual reduction in greenhouse gas emissions of 372 tons of CO<sub>2</sub>

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<sup>43</sup> Moore, S.L., D. Gregorio, M. Carreon, S.B. Weisberg, & M.K. Leecaster. "Composition and Distribution of Beach Debris in Orange County, California." *Marine Pollution Bulletin* 42.3): 241-245,

<sup>44</sup> American Chemistry Council, undated, Operation Clean Sweep, Pellet Handling Manual, Make zero pellet loss your goal.

<sup>45</sup> Boustead Consulting and Associates, Ltd., 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper. Prepared for the Progressive Bag Alliance.

equivalent compared to the existing conditions. The subsequent increase from \$0.10 to \$0.25 proposed by the ordinance would likely result in the further reduction of single use paper bag use, further reducing CO<sub>2</sub> equivalent emissions.

Under the proposed ordinance, it is anticipated that the number of single-use paper bags used in the unincorporated County would be further reduced when a \$0.25 store charge is ultimately imposed per paper bag (see Table 5 of the Initial Study). As a result, an increase in energy use would not occur.

Under the proposed ordinance it is estimated that the number of single-use paper bags would increase by approximately 5 million bags annually. However, plastic bag use would be decreased by an estimated 50 million bags annually. Using the methodology in the Boustead report, paper bag production and recycling uses approximately twelve times the water that plastic bags use. However, a 47 percent reduction in single-use bags is anticipated annually. This would result in a reduction of approximately 400,000 gallons of water annually with the proposed ordinance.

#### Use Less Stuff Report, March 2008

As stated in the Use Less Stuff (ULS) Report (March 2008), "In an effort to gauge the impact of the Board's decision, both in terms of environmental impact and litter reduction, the Editors of the ULS Report have examined a number of credible third-party research reports, and used the findings to develop their own conclusions and recommendations." The report cites the following reports:

1. *Evaluation of Environmental Impacts of Carrier Bags*, Carrefour Group, February 2004
2. *Life Cycle Inventories for Packagings, Environmental Series No. 250/1, Swiss Agency for the Environment, Forests and Landscape, 1998*
3. *Eco-Profiles of the European Plastics Industry*, Boustead 2004
4. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper*, Boustead 2007

Comparison of the City/County of San Francisco Plastic Bag Reduction Ordinance with the proposed County of Santa Cruz Single-use Bag Reduction Ordinance is not appropriate. There are significant differences between the two ordinances that would lead to different conclusions. First of all, the proposed County ordinance includes a fee on single-use Kraft paper bags resulting in the reduction in their demand based on previous studies (see response to No. 17). A second major difference is the inclusion of compostable plastic bags in the San Francisco ordinance. This bag type would likely result in an increase in CO<sub>2</sub> emissions at end of life when landfilled. The County's

ordinance does not allow compostable plastic bags. Because of these two major differences, this study is not applicable to the County of Santa Cruz ordinance.

18. Comment: "STPB objects on the ground that it cannot be stated with certainty that the proposed paper bag fee will sufficiently reduce the number of paper bags to offset the greater negative environmental impacts of paper bags."

The following measure has been proposed to ensure that a substantial increase in paper bag use is not realized under the proposed ordinance. Page 59 of the Initial Study states, "To ensure a reduction in greenhouse gasses is the result following adoption and implementation of the ordinance, it is vital that reusable carryout bags are made available and used at County of Santa Cruz retailers. To ensure this reduction, the following mitigation shall be implemented: *The County will work with retailers and members of the community to increase the availability and use of reusable carryout bags. The County is currently a member of the Central Coast Recycling Media Coalition (CCRMC), which coordinates education and outreach for numerous cities and counties in the Monterey Bay Area. The County of Santa Cruz Department of Public Works will continue to contribute a minimum of \$10,000 per year to CCRMC in support of ongoing programs promoting the use of reusable shopping bags. Bag use would be reduced even further when the store charge for single-use paper bags is raised to \$0.25 one year after implementation.*"

In addition, the proposed ordinance includes the following requirement to ensure the reduction of single-use Kraft paper bags, "Retail establishments shall keep annual records of paper bag distribution to be made available to the Director of Public Works, or designee upon request. The records shall be evaluated annually for the first five years by the County to ensure the effectiveness of the ordinance. If it is determined that single-use paper bag use has increased beyond anticipated levels, the Board of Supervisors shall consider increasing the minimum store charge to improve the effectiveness of the ordinance."

19. Comment: "STPB objects on the ground that if food providers are prohibited from providing plastic bags for prepared take-out food, there will be no fee on paper bags and therefore there will be a huge increase in the number of paper bags."

This issue is addressed on pages 55 and 56 of the Initial Study. Using the behavior change estimates in Herrera (2008), it is estimated that with the ban on plastic bags and a \$0.10 store charge on paper bags, 65% of people would use reusable bags or no bag, and 35% of people would use paper bags. These are conservative estimates. No huge increase in paper bag use is anticipated.

20. Comment: "STPB objects on the ground that there is no requirement that stores make reusable bags available to consumers."

See response to Comment G-18. This has already been made a requirement by the State of California for larger retailers. As a result, reusable bags are readily available to shoppers within the County. Assembly Bill 2449 requires the operator of a store to make reusable bags, as defined, available to customers, for purchase. "Reusable bag" means either of the following: (1) A bag made of cloth or other machine washable fabric that has handles; (2) A durable plastic bag with handles that is at least 2.25 mils thick and is specifically designed and manufactured for multiple reuse.

21. Comment: "STPB objects on the Ground that the "mitigation" is too weak to be effective as a matter of certainty."

The commenter is entitled to their opinion. However, performance standards have been clearly stated. Data on paper bag use will be collected annually. The Board of Supervisors will have the discretion to amend the fee on paper bags accordingly. The County is confident in the effectiveness of the proposed mitigation measures.

22. Comment: "STPB objects to the baseless assumption that reusable bags will be used on average more than two times."

The initial study assumes that a reusable shopping bag would be reused a total of 100 times annually (or twice per week) prior to recycling or disposal. This is a very reasonable assumption. The main advantage of a reusable bag over a single-use bag is the number of uses it can withstand during its useful life. In a 2007 report, the Food Marketing Institute stated the average consumer makes 1.9 trips to the grocery store per week (FMI, 2007)<sup>46</sup>. Given 52 weeks in a calendar year, that would result in 98.8 trips to the grocery store per year for the average consumer. The Overview of Carryout bags in Los Angeles County report assumes a lifetime of 2 years for reusable bags (LA County, 2007)<sup>47</sup>. The Australian report Plastic Shopping Bags – Analysis of Levies and Environmental Impacts, assumes an expected life of 104 trips (or one trip per week) for 2 years for reusable bags and 3 years for a plastic polypropylene "smart box" (Environment Australia, 2002). Given the 1.9 trips per week of the average consumer and an assumed life of 2-3 years, the minimum life cycle of a reusable bag should be ~300 uses for its useful life. The Green Seal Standard (GS-16) issued in 1994 required 300 minimum uses carrying typical loads and the Canada EcoLogo CCD-100 Reusable Bag Standard issued 1996 requires 300 uses carrying 10 kg under wet conditions. Since those standards were issued, there has been a dramatic increase in

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<sup>46</sup> Food Marketing Institute. Supermarket Facts, Industry Overview 2007. Accessed 8/5/08  
[http://www.fmi.org/facts\\_figs/?fuseaction=superfact](http://www.fmi.org/facts_figs/?fuseaction=superfact)

<sup>47</sup> An Overview of Carryout bags in Los Angeles County, August 2007.

the amount of reusable bags available as well as improvements in technology and structural integrity. Current government procurement programs are citing a useful life of 3-5 years (Seattle RFP5108, 5/23/08), which roughly equals 500 minimum uses. Therefore, in order to address current leadership levels in the marketplace, Green Seal is revising limits for longer lasting products and is proposing a limit of 500 minimum uses carrying 10 kg (22 lbs) under wet conditions. Green Seal recognizes that the scope of the proposed standard includes a variety of different types of bags, particularly a number of product categories for which 10 kg (22 lbs) may not be applicable. For those bags with a volume of 3000 g/cm<sup>3</sup> or less, Green Seal proposes to require a minimum of 500 uses given 2 kg (4.4 lbs) carrying capacity.<sup>48</sup>

23. Comment: "STPB objects on the ground that the increase in the number of reusable bags may have a significant negative impact on the environment."

The results of the Initial Study conclude that the reduction in 50,000,000 single-use plastic bags annually would more than offset the minimal impact of reusable shopping bags. No significant impact is anticipated.

24. Comment: "STPB objects to the Negative Declaration on the ground that reusable bags may have a significant negative net impact on the environment as a result of heavy metals content."

According to a 2010 NPR article, "There are lots of other things out there that you should be more concerned about," says Bruce Hoogesteger, a chemist with Paradigm Environmental Services, Inc. who studied the bags. He sees little risk of food getting contaminated. The Food and Drug Administration agrees. "FDA doesn't view the reusable grocery bags as a safety hazard," says spokesman Doug Karas. He says the lab that studied bags for The Tampa Tribune found lead in the outside decoration, which wouldn't touch food. And besides, Karas says, most food is wrapped in other packaging before it's bagged.<sup>49</sup>

This is an issue for the California Department of Toxic Substances Control and the Food and Drug Administration rather than the County. Lead free reusable bags will be made available to local shoppers. No impact is anticipated.

25. Comment: "STPB objects to the failure to prepare a cumulative impacts analysis."

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<sup>48</sup> Green Seal Proposed Revised Environmental Standard for Reusable Bags (GS-16), Background Document, October 13, 2008.

<sup>49</sup> NPR. Grocery Bag Lead Test Results Flummox Shoppers, Elizabeth Shogren, November 26, 2010.

Page 68 of the Initial Study addresses cumulative impacts under the Mandatory Findings of Significance section. No significant cumulative effects are anticipated.

26. Comment: "STPB objects to a threshold of significance that is not based on every bag choice made by every consumer."

Comment noted. The proposed ordinance has been drafted in an effort to reduce the use of single-use carryout shopping bags. The net effect of the ordinance would not result in a significant impact on the environment.

27. Comment: "STPB objects to the failure to allow the legally required time for public comments."

The public comment period officially began at the State Clearinghouse on February 14, 2011. Comments were received through March 16, 2011, a total of 31 days. The County has complied with Section 15205(d) of CEQA.

28. Comment: "STPB objects to the misleading nature of the Notice of Intent to Adopt a Mitigated Negative Declaration."

Unincorporated County retail businesses collecting the fee would retain the fee, and are not likely to object it. As a result, large numbers of formal requests to the Public Works Director to reduce the fee are not anticipated.

#### **V. Private Individuals**

##### **A. Nancy Williams, Santa Cruz, CA, dated March 15, 2011:**

1. The commenter supports the proposed Single Use Bag Reduction Ordinance.
2. The commenter notes that the ordinance addresses the need to move to reusable bags by banning plastic bags and placing a fee on paper bags so that the community will be encouraged to bring their own bags to the store. The county's ordinance also targets all retail stores and restaurants which makes it a comprehensive and effective ban.
3. Commenter states that it is their hope that the County move forward with the ordinance as it is written and that it is put in place as soon as possible.

##### **B. David Marshall, Santa Cruz, CA, dated March 15, 2011:**

1. The commenter supports the proposed Single Use Bag Reduction Ordinance.
2. The commenter notes that the ordinance addresses the need to move to reusable bags by banning plastic bags and placing a fee on paper bags so that the community will be encouraged to bring their own bags

to the store. The county's ordinance also targets all retail stores and restaurants which makes it a comprehensive and effective ban.

3. Commenter states that it is their hope that the County move forward with the ordinance as it is written and that it is put in place as soon as possible.



Mr. Todd Sexauer, Environmental Planner  
County of Santa Cruz  
Planning Department  
701 Ocean Street, 4th Floor  
Santa Cruz, California 95060

March 15, 2011

Re: Comments of the American Chemistry Council's Progressive Bag Affiliates on Santa Cruz County's Proposed Single-Use Carryout Bag Ordinance

Dear Mr. Sexauer:

I write on behalf of the American Chemistry Council ("ACC")'s Progressive Bag Affiliates with respect to the request for public comments for the Mitigated Negative Declaration under the California Environmental Quality Act (CEQA.)

It is our view an Environmental Impact Report (EIR) under CEQA must be completed and thus the environmental impacts have not been effectively studied by Santa Cruz County. Therefore, with so much information and data not yet collected and analyzed, Santa Cruz County has not complied with their procedural requirements including opening an EIR to public comment.

As proposed, the ordinance would prohibit the distribution of plastic carryout bags at the point of sale (i.e., check-out) for all commercial retail businesses in Santa Cruz County except possibly restaurants. Although the ordinance would purportedly restrict certain paper bags as well, paper bags with more than 40% recycled content would be allowed as long as the merchant charged consumers 10-cents per bag the first year after adoption and 25-cents thereafter.

ACC believes that a comprehensive approach based on reduce-reuse-recycle is the best method to reduce bag waste. In fact, ACC has supported a number of programs using this approach and promoting bag recycling including Keep California Beautiful's new "Got Your Bags" program. This initiative encourages consumers to bring their bags back to the grocery store whether they are reusable bags or recyclable plastic bags. Recycling and reusing plastic bags is one of the simplest things consumers can do to contribute to a better environment. In fact, surveys show that 92 percent of consumers reuse their plastic shopping bags. Should a ban on plastic bags be adopted by the city, the environmental burden of manufacturing other bags to replace those bags must also be considered.

In our experience, there are many mistaken, or unsupported, assumptions about plastic bags and their potential environmental impacts, and likewise, mistaken or unsupported assumptions about the alternatives to plastic bags, including paper bags and reusable carryout bags. All of these products have environmental impacts, ranging from energy and natural resource use in gathering raw materials, to manufacture of the product, to shipping and use of the product, to end of life disposition. All these impacts must be carefully evaluated.

#### **Additional Issues that Should Be Included in the Scoping Process**

Ample evidence has recently entered the public arena demonstrating that paper bags have adverse environmental impacts compared to plastic bags. See, Extended Impact Assessment of Proposed Plastic Bag Levy (Scotland, "Scottish Report,"); <http://www.scotland.gov.uk/Resource/Doc/57346/0016899.pdf>; *A Qualitative Study of Grocery Bag Use in San Francisco*, <http://use-less-stuff.com/Field-Report-on-San->



Francisco-Plastic-Bag-Ban.pdf. Many of these impacts continue to exist even when the paper bag is composed in whole or in part of recycled paper.

**Air Quality.** A shift from plastic carry out bags to other bags may adversely affect air quality. Paper bags require trees for their manufacture. Harvesting trees has multiple adverse environmental impacts, including the impacts on land use and wildlife. Removal of mature trees eliminates their ability to produce oxygen and consume carbon dioxide, and immature seedlings do not have the salutary effect on the atmosphere that mature trees do. Kraft paper itself (the raw material for paper bags) is made primarily by heating wood chips under pressure at high temperatures in a chemical solution. This creates potential impacts in the form of air pollution and water pollution. The differential is not insignificant; paper sacks generate 70% more air and 50 times more water pollutants than plastic bags. See, *Comparison of the Effects on the Environment of Polyethylene and Paper Carrier Bags*, Federal Office of the Environment (August 1988.)

It is well documented that plastic bags are significantly lighter than paper. This reduces use of fossil fuels to fuel trucks transporting loads of bags into and through the State of California. In the stores themselves, the phenomenon of "double bagging" occurs, both with plastic and paper. The practice of double bagging exacerbates environmental impacts further as still more paper is used to complete the job as opposed to plastic. Truck emissions have a direct nexus to greenhouse gas emissions, and therefore a net increase in truck emissions must be considered under the California Environmental Quality Act (CEQA.)

Bags also have an environmental impact at the end of their lifecycle. According to European studies and data, plastic carry out bags produce between 60 and 79 percent less greenhouse gas emissions than uncomposted or composted paper bags, respectively<sup>1</sup>.

**Energy Consumption During Harvest/Manufacture.** Bags made from plant crops use energy to grow and harvest them. The U.S. EPA has concluded that plastic bags use 40 percent less energy to produce than paper bags.

**Energy Consumption During Recycling.** It takes 91% less energy to recycle a pound of plastic than it takes to recycle a pound of paper.

ENERGY TO RECYCLE PACKAGE ONCE (BTUs)

Safeway Plastic Bags: 17 BTUs

Safeway Paper Bags: 1444 BTUs

*1989 Plastic Recycling Directory, Society of Plastics Industry.*

**Impacts on Land Use.** Bags made from plant crops or trees take up field space and consume natural resources including water. Harvesting trees has environmental impacts on the local flora and fauna. Felling trees to make paper has secondary impacts on air quality, since trees consume carbon dioxide and manufacture oxygen.

**Impacts on Water Quality.** Littering is a behavior. See, *A Review of Litter Studies, Attitude Surveys and Other Litter-Related Literature*, Keep America Beautiful [http://www.kab.org/site/DocServer/Litter\\_Literature\\_Review.pdf?docID=481](http://www.kab.org/site/DocServer/Litter_Literature_Review.pdf?docID=481). Substituting one packaging material, or carryout bag for another, does not address littering behavior. It can therefore reasonably be assumed that if paper bags substitute for plastic bags, a certain number of paper bags will be littered. A certain number of these will end up in waterways. The paper will degrade in the water, and may have adverse effects in waterways, particularly with respect to water quality, that should be taken into consideration. Furthermore, a 2009 study conducted for Keep LA Beautiful concluded that perception of biodegradability actually increases littering<sup>2</sup>.

<sup>1</sup> Boustead Consulting. "Life Cycle Assessment for Three Types of Grocery Bags - Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper." 2007.

<sup>2</sup> San Francisco Litter Re-Audit

**Impacts on Recycling Infrastructure.** Over 850 million pounds of plastic bags and film are recycled every year in the US, predominantly through the nationwide grocery and retail system where they are consolidated with stores' stretch film (pallet wrap) and recycled through a well established recycling infrastructure.

A prohibition of plastic carryout bags may result in an overall decrease in the recycling of plastics, or damage the recycling infrastructure for polyethylene bags, wraps, and film. Currently, stores that accept plastic bags for recycling, as mandated by California law, also accept other polyethylene wraps and films, including dry cleaning bags, toilet paper wraps, paper towel wraps, and other wraps and bags. But if commercial retailers and grocers may no longer offer plastic bags under the proposed ordinance, it is reasonable to assume that a significant majority of such businesses will also stop offering to accept plastic bags for recycling at their stores, since they will no longer be required to do so. In fact, empirical evidence bearing this out has already emerged in a study conducted by *Use Less Stuff* following the San Francisco plastic bag ban. The study, following the City's plastic bag ban, reported that several stores had already removed, or had moved to obscured areas, plastic bag recycling bins from their stores within a fairly short period following the ban.

The clear impact is that the proposed ordinance is likely to significantly reduce recycling of other plastic bags, films, and wraps, and perhaps completely eliminate the ability for County residents to recycle any of these items. If recycling facilities are no longer readily available to accept these products, very few if any of these products will be recycled. Existing behavioral evidence is clear that if readily available recycling centers are not available, people will stop recycling. See, e.g., <http://www.articlesbase.com/home-improvement-articles/why-is-recycling-important-697194.html> (readily available recycling centers are essential to promote recycling behavior); Sidique et al., *The Effects of Behavior and Attitudes on Drop-off Recycling Activities (2009)*, available at [www.sciencedirect.com](http://www.sciencedirect.com) (recyclers use the drop-off sites more when they feel that recycling is a convenient activity and when they are more familiar with the sites).

This outcome is a potentially serious environmental consequence, and one that could result in a net increase in litter or landfill impacts.

It should also be noted that the reduced availability of plastic grocery bags could have other detrimental effects on recycling programs in Santa Cruz County, further reducing recycling and imposing additional burdens on landfills.

**Impacts on Landfilling.** Modern landfills are designed to retard decomposition, so paper bags degrade very slowly in a landfill. At the same time, they take up more space than plastic bags in a landfill.

**Impacts on Decreased Use of Recycled Polyethylene Resin/Increased Use of Virgin Timber.** Plastic bags and film serve as tremendous source materials for the production of composite lumber products such as decks, railing, fencing and trim. In 2009, over 850 million pounds of post-consumer film was recovered, representing a 31 percent increase since 2005. Of the total recovered amount, composite lumber applications were the primary use of the domestic end market (20 percent).<sup>3</sup> Consequently, a decline in the availability of plastic film recycling, as predicted by the passage of the County's ordinance, may reduce the manufacture of composite lumber and increase the use of virgin forest for lumber products. See 2007 National Post-Consumer recycled Plastic Bag & Film Report, [http://www.americanchemistry.com/s\\_plastics/sec\\_content.asp?CID=1593&DID=11723](http://www.americanchemistry.com/s_plastics/sec_content.asp?CID=1593&DID=11723).

**Impacts on Human Health from Bag Use.** To the extent that the proposed ordinance may result in a shift from plastic carryout bags to bags that are used repeatedly without washings, the substitute bags may present new health risks that should be evaluated. The first North American microbiological study on

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<sup>3</sup> In addition, 55 percent was purchased by the export market, 3 percent was purchased by the domestic film market, and 5 percent was purchased for the production of various other applications such as pallets, buoys and other various miscellaneous products.

reusable bags, issued last year, found high levels of bacterial, yeast, mold and coliform counts in many reusable bags. Sixty-four (64) percent of the bags tested were contaminated with some level of bacteria.

Dr. Richard Summerbell, research director at Toronto-based Sporometrics and former chief of medical mycology for the Ontario Ministry of Health, reviewed the study and stated that "the main risk is food poisoning ... but other significant risks include skin infections such as bacterial boils, allergic reactions, triggering of asthma attacks, and ear infections."

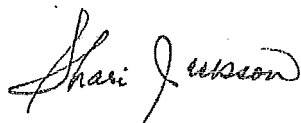
The study concluded there is a potential for cross-contamination of food if the same reusable bags are used on successive trips; that check-out staff in stores may be transferring these microbes from reusable bag to reusable bag as the contaminants get on their hands; and that in cases of food poisoning, experts will have to test reusable bags in addition to food products as the possible sources of contamination. [http://www.cpia.ca/files/files/A\\_Microbiological\\_Study\\_of\\_Reusable\\_Grocery\\_Bags\\_May20\\_09.pdf](http://www.cpia.ca/files/files/A_Microbiological_Study_of_Reusable_Grocery_Bags_May20_09.pdf).

#### **Other Environmental Impacts of Reusable Bags**

If, on the other hand, reusable bags are washed frequently to address potential health risks from microbial growth, the additional environmental impacts – use of water, energy to heat the water, detergent – should be considered, as well as end of life disposition issues.

We appreciate the opportunity to provide comments to the scoping process. For additional information, please feel free to contact me at 703-741-5102 or via email at [shari\\_jackson@americanhmistry.com](mailto:shari_jackson@americanhmistry.com).

Sincerely,



Shari Jackson  
Director, Progressive Bag Affiliates

## SAVE THE PLASTIC BAG COALITION

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March 16, 2011

County of Santa Cruz  
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Attn: Todd Sexauer

VIA E-MAIL  
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RE: Single-use Bag Reduction Ordinance: CEQA objection to approval of project; CEQA objections to (i) Initial Study; (ii) Notice of Intent To Adopt a Mitigated Negative Declaration; (iii) Draft Mitigated Negative Declaration; and (iv) proposed ordinance; legal objection to proposed ordinance based on preemption; ***notice of intent to litigate***

### INTRODUCTION

Pursuant to Pub. Res. Code §21177(b), Save the Plastic Bag Coalition (“STPB”) hereby objects to the approval of the Single Use Carryout Bag Reduction Ordinance project based on the objections herein. STPB demands that an EIR be completed and certified, in compliance with CEQA.

STPB hereby objects to the (i) Initial Study; (ii) Notice of Intent To Adopt a Mitigated Negative Declaration; (iii) Draft Mitigated Negative Declaration; and (iv) proposed ordinance on the grounds set forth herein. The basis for the objections is that the proposed ordinance would or might have significant negative impacts on the environment. The objections herein are based entirely on environmental impacts. Economic and other impacts are not the bases for any of the objections herein.

Exhibits are submitted herewith via e-mail for inclusion in the administrative record in support of these objections.

### THE REASON FOR THE COALITION’S EXISTENCE

STPB was formed in June 2008 to respond to environmental myths, exaggerations, and misinformation about plastic bags. STPB is campaigning for all of the environmental impacts of banning plastic bags to be described and disclosed to city and county officials and the public. STPB believes that banning plastic bags (i) is not justified by the environmental facts; and (ii) would result in greater environmental harms including more paper bags.

For several years, plastic bags have been the subject of an intense national and international vilification campaign. STPB believes and contends that groups seeking to have plastic bags banned have disseminated environmental myths, misinformation and exaggerations to promote their goal. The *Times of London* has stated as follows in an editorial: [Exh. SC68.]

There is a danger that the green herd, in pursuit of a good cause, stumbles into misguided campaigns.

Analysis without facts is guesswork. Sloppy analysis of bad science is worse. Poor interpretation of good science wastes time and impedes the fight against obnoxious behavior. There is no place for bad science, or weak analysis, in the search for credible answers to difficult questions.... Many of those who have demonized plastic bags have enlisted scientific study to their cause. By exaggerating a grain of truth into a larger falsehood they spread misinformation, and abuse the trust of their unwitting audiences.

A senior policy analyst with the U.S. Marine Mammal Commission has publicly stated as follows: [Exh. SC41.]

In their eagerness to make their case [against plastic bags], some of the environmental groups make up claims that are not really supportable.

The *San Jose Mercury News* has been disseminating such myths, including in an editorial on June 14, 2010 that stated as follows: [Exh. SC48.]

[Assembly Member Brownley, the author of pending bill AB 1998 that would ban plastic bags] calls plastic bags "urban tumbleweeds." Californians use 19 billion bags a year, and the state spends more than \$25 million a year to try to keep them from blowing across cities and counties. That effort, for the most part, has been a failure.

Environmentalists have studies that show Californians recycle only 5 percent of the plastic bags they use. Worldwide, that number is closer to 1 percent. Yet they take 1,000 years to biodegrade. Huge numbers wind up as health hazards to marine mammals: Plastic bags kill an estimated 1 million seabirds and 100,000 other animals every year, whether from eating the things or getting tangled in them. Nearly 2 million barrels of oil a year is wasted to make the plastic bags used by Californians, enough to produce about 40 million gallons of gasoline.

Fifty years ago, sea captains rarely encountered plastic bags in their voyages across the Pacific. Today, about 1,000 miles off the coast of California, they find a swirling mass of plastic trash that spans an area estimated to be twice the size of Texas.

The *Mercury News* allegations are incorrect.

- Removing plastic bags would not save the state \$25 million in litter costs. The same streets, highways, parks, rivers and creeks, and other areas will have to be cleaned, even if there are no plastic bags in the litter stream. San Francisco has not saved any money in litter costs since it banned plastic bags.
- The plastic bag recycling rate of 5% was measured before AB 2449 took effect. AB 2449 required stores to install plastic bag recycling collection bins. Since that time, plastic bag recycling has increased significantly.
- If plastic bags take 1,000 years to biodegrade, that is a good thing. Paper bags do biodegrade in landfills. In the process of biodegrading, paper bags emit methane, which is a greenhouse gas (“GHG”) with 23 times the climate changing impact of CO<sub>2</sub>.
- The allegation that “plastic bags kill an estimated 1 million seabirds and 100,000 other animals every year, whether from eating the things or getting tangled in them” is untrue. The *Times of London* has exposed the allegation about 1 million seabirds and 100,000 sea animals being killed by plastic bags each year as a myth based on a typographical error! The survey on which the myth is based found that the deaths are caused by discarded fishing tackle including fishing nets, not plastic bags. A marine biologist at Greenpeace told The Times: “It’s very unlikely that many animals are killed by plastic bags. The evidence shows just the opposite.” [Exh. SC 34]
- The allegation that there is a swirling mass of plastic trash including plastic bags, “twice the size of Texas,” is untrue. The *Los Angeles Times* has made a similar allegation in an editorial on June 24, 2010 stating: “The Great Pacific Garbage Patch is an area of the ocean larger than Texas and thick with floating plastic debris: bottles, bottle caps, bits of packaging and uncountable plastic bags.” [Exh. SC33.]

In fact there is no such area of the ocean “larger than Texas and thick with floating plastic debris: bottles, bottle caps, bits of packaging and uncountable plastic bags.” If such an area existed, it would be clearly visible and there would be photographs of it. There are no such photographs, as anyone can see by searching Google images.

According to Dr. Marcus Erikson of the Algalita Research Foundation: “There is no island of plastic trash.” [Exh. SC60.] He claims that there is a confetti of waste spread over the entire ocean surface. However, he found very little such confetti when he went out to the Pacific Gyre himself and conducted a 24-hour trawl. See YouTube JUNK-n-Gyre video at [http://www.youtube.com/watch?v=3d3\\_fLsjC8U](http://www.youtube.com/watch?v=3d3_fLsjC8U). [Exh. SC67.] The video is hereby submitted into the administrative record in its entirety.

Oregon State University has issued a media release regard its research on the “Great Pacific Garbage Patch,” stating as follows:

The studies have shown is that if you look at the actual area of the plastic itself, rather than the entire North Pacific subtropical gyre, the hypothetically “cohesive” plastic patch is actually less than 1 percent of the geographic size of Texas.

“The amount of plastic out there isn’t trivial,” White said. “But using the highest concentrations ever reported by scientists produces a patch that is a small fraction of the state of Texas, not twice the size.”

Another way to look at it, White said, is to compare the amount of plastic found to the amount of water in which it was found. “If we were to filter the surface area of the ocean equivalent to a football field in waters having the highest concentration (of plastic) ever recorded,” she said, “the amount of plastic recovered would not even extend to the 1-inch line.”

Miriam Goldstein, the chief scientist on the Scripps Seaplex expedition which went out to the Pacific to survey marine debris, states as follows regarding the “Great Pacific Garbage Patch”:

Misinformation on this issue is rampant.

Regarding whether there is an area of trash in the Pacific twice the size of Texas, she states:

There is no evidence for this. There certainly is a lot of trash, but there have been no measurements of either the trash’s total area or its growth rate.

[Exhs. SC76, SC77.] Goldstein also states: [Exh. SC78]

Ever since SEAPLEX was funded around two years ago, I have begun every one of my general audience talks (and even a few scientific ones) with a display of misleading and confusing headlines on the accumulation of trash in the North Pacific. According to these headlines, it’s twice the size of America, 3.5 billion ...something...(they don’t say what), stretching from Hawaii to Japan. Most of these claims cannot be supported by any scientific data of which I’m aware. As a scientist, it can be pretty frustrating to see these misconceptions repeated and repeated for years on end.

- The allegation that “nearly 2 million barrels of oil a year is wasted to make the plastic bags used by Californians, enough to produce about 40 million gallons of gasoline” is untrue. This is based on the myth that plastic bags are made of oil. In fact, 85% of

plastic bags used in the United States are made in the United States. Those bags are made of ethane, which is a waste by-product of domestically produced natural gas. None of it could be used for gasoline.

The *Mercury News* editorial illustrates why STPB considers it so important that accurate and informative EIRs are prepared, so that decision-makers and the public in Santa Cruz County (hereinafter the "County") do not evaluate the proposed ordinance based on myths, misinformation, and falsehoods.

Heal the Bay is leading the anti-plastic bag campaign in California. Heal the Bay's President, Dr. Mark Gold, testified at the Manhattan Beach City Council meeting on July 1, 2008, which was considering banning plastic bags without preparing an EIR. He testified as follows:

Those [plastic bag] bans [in San Francisco and Oakland] did not include bioplastics, which is a *huge mistake*. And so by not doing the CEQA analysis specifically on what the environmental impacts were of not banning that, and moving towards bioplastics with the many problems that they cause, that was a major shortcoming.

[Exh. SC25, emphasis added.] "Bioplastics" means compostable bags, which were not banned in San Francisco or Oakland. Heal the Bay was saying that San Francisco's and Oakland's failure to prepare an EIR to study the environmental impacts one of the alternatives to plastic bags resulted in a "huge mistake" impacting the environment. Heal the Bay was right. The same applies to the environmental impacts of the other alternatives to plastic bags: paper bags and reusable bags. Failure to prepare an EIR would be a "huge mistake."

#### **OBJECTIONS TO OUTRAGEOUS MYTHS AND MISINFORMATION ABOUT PLASTIC BAGS IN THE INITIAL STUDY AND PROPOSED ORDINANCE**

The Initial Study (especially pages 4, 6 and 7) and the proposed ordinance (at pages 16-18) are full of myths and misinformation about plastic bags. STPB objects to all of the myths and misinformation, including but not limited to the following:

- Page 4 and proposed ordinance: "Globally, an estimated 500 billion to 1 trillion petroleum-based plastic bags are used each year, which is equal to approximately one million per minute, the production and use of which uses over 12 million barrels of oil." NO EVIDENCE IS CITED.

THE ALLEGATION IS NOT TRUE. There is no basis whatsoever for the assertion that 12 million barrels of oil are used annually.

- Page 6 and proposed ordinance: "Further, the Environmental Protection Agency estimates that only 5% of the plastic bags in California and nationwide are currently recycled." NO EVIDENCE IS CITED.



THE ALLEGATION IS NOT TRUE. The 5% figure was determined prior to the enactment of AB 2449 in 2006, which required stores to install plastic bag recycling bins commencing in July 2007. Since that time, the figure has increased.

Page 6 and proposed ordinance: "The production and disposal of plastic bags have caused significant environmental impacts, including contamination of the environment, the deaths of thousands of marine animals through ingestion and entanglement, widespread litter and degradation of the urban environment, and increased disposal costs." NO EVIDENCE IS CITED.

THE ALLEGATION IS NOT TRUE. There is no evidence that thousands of marine mammals have been killed by plastic bags. **This is a false and outrageous allegation which misinforms decision makers and the public and STPB demands that it be retracted. It is incredible that a government entity such as Santa Cruz County can engage in perpetrating such falsehoods.**

- Page 6 and proposed ordinance: "Most plastic carryout bags do not biodegrade, but instead persist in the environment for hundreds of years. Rather than breaking down, they slowly break up through abrasion, tearing, and photo degradation into toxic plastic bits that contaminate soil and water, while entering the food web when animals accidentally ingest these materials. Toxic substances present in plastics are known to cause death or reproductive failure in fish, shellfish, wildlife, and in the humans ingesting the fish." NO EVIDENCE IS CITED.

THE ALLEGATION IS NOT TRUE. Plastic bags and "bits" coming from them are not toxic. There are no toxic substances in plastic bags that cause death or reproductive failure in fish, shellfish, wildlife, and in the humans ingesting the fish. **This is a false and outrageous allegation which misinforms decision makers and the public and STPB demands that it be retracted. It is incredible that a government entity such as Santa Cruz County can engage in perpetrating such falsehoods.**

- Page 6 and proposed ordinance: "Plastic bits absorb dangerous compounds such as dichlorodiphenyldichloroethylene (DDE), Polychlorinated Biphenyl (PCB), and other toxic materials present in ocean water. Plastics have been found to concentrate these toxic chemicals at levels of up to one million times the levels found in seawater. Plastic bits have displaced plankton in the Pacific Gyre." NO EVIDENCE IS CITED.

THE ALLEGATION IS NOT TRUE. Plastic bags do *not* absorb any dangerous compounds in ocean water. Plastics have *not* been found to concentrate these toxic chemicals at levels of up to one million times the levels found in seawater. Plastic bits have not displaced plankton in the Pacific Gyre. **This is a false and outrageous allegation which misinforms decision makers and the public and**

**STPB demands that it be retracted. It is incredible that a government entity such as Santa Cruz County can engage in perpetrating such falsehoods.**

- Page 7: “Much of the remaining 95% are either landfilled, become litter on roadsides and beaches, or end up in the marine environment where they choke wildlife and release toxic chemicals into the ocean.” NO EVIDENCE IS CITED.

The allegation is not true as discussed above. **This is a false and outrageous allegation which misinforms decision makers and the public and STPB demands that it be retracted. It is incredible that a government entity such as Santa Cruz County can engage in perpetrating such falsehoods.**

- Pages 6 and 7 and proposed ordinance: “The U.S. Marine Mammal Commission estimates that 257 marine species have been reported entangled in or having ingested marine debris. Plastic can constrict the animals’ movements or block their digestive system, killing the animals through starvation, exhaustion, or infection from deep wounds caused by tightening material.” “NO EVIDENCE IS CITED.

Page 29: “Over 260 species of wildlife, including invertebrates, turtles, fish, seabirds and mammals, have been reported to ingest or become entangled in plastic debris.”

THE ALLEGATION IS NOT TRUE AS TO PLASTIC BAGS. “Marine debris” and “plastic debris” are not the same things as plastic bags and it is grossly misleading to make this allegation in an Initial Study or an ordinance about plastic bags. Marine debris and plastic debris includes discarded fishing nets and other fishing gear, which are the primary causes of deaths of marine species by debris. (See, e.g., Exh. SC109.)

- Page 29: “According to the International Coastal Clean-up Report (2005), 2.2% of all animals found dead during the 2004 survey had been entangled in plastic bags (Ocean Conservancy, 2009). The proportion of these bags that were grocery bags is unknown.” (Presumably, the County is referring to the 2009 report which is Exh. SC122.)

THE ALLEGATION IS NOT TRUE. There is no such figure in the report. (Exh. SC122.) The following table appears at page 13 of the report:

## MARINE WILDLIFE FOUND ENTANGLED IN MARINE DEBRIS

	BALLOONS	BEVERAGE BOTTLES	BEVERAGE CANS	BUILDING MATERIALS	CRAB, LOBSTER, FISH TRAPS	FISHING HOOKS	FISHING LINE	FISHING NETS	PLASTIC BAGS	RIBBON/STRINGS	ROPE	SIX-PACK RINGS	TIRES	WIRES	TOTAL WILDLIFE
Amphibians	0	1	0	0	0	0	2	1	0	1	1	1	0	0	7
Birds	1	4	1	0	0	3	57	4	0	5	13	1	0	1	99
Fish	0	16	10	0	21	4	70	33	24	2	9	4	1	3	197
Invertebrates	0	12	4	1	35	1	12	24	11	4	9	3	4	2	122
Mammals	0	2	0	0	0	0	2	2	0	1	1	0	0	0	8
Reptiles	0	0	0	0	0	0	2	2	2	0	3	1	0	0	10
<b>Total Debris Items</b>	<b>1</b>	<b>35</b>	<b>15</b>	<b>1</b>	<b>56</b>	<b>8</b>	<b>143</b>	<b>67</b>	<b>47</b>	<b>12</b>	<b>36</b>	<b>10</b>	<b>6</b>	<b>6</b>	<b>443</b>

Source: Ocean Conservancy 2008 International Coastal Cleanup

As we can see, no marine mammals were found entangled or dead from plastic bags. 24 fish were found, 9 birds, 11 invertebrates, 1 amphibian, and 2 reptiles. In a worldwide coastal cleanup, this is frankly minimal. There are more dead fish in a single supermarket frozen section than were found in the entire worldwide litter survey.

- Pages 29-30: There are so many allegations on these pages about the impacts of plastic bags on wildlife that it is impossible in these objections to respond to them all. One of the problems is that the County cites other studies (such as Herrera and ExcelPlas) which are not in fact original sources or substantial evidence. Those studies were merely citing and often misrepresenting other studies. STPB objects to all of the allegations about plastic bags at pages 29-30.
- Page 33: The allegations about the Pacific Gyre are vague, ambiguous, and misleading and therefore STPB objects.
- Page 6 and proposed ordinance: According to Save Our Shores, a Santa Cruz based marine conservation nonprofit that conducts beach, river, and inland cleanups in the coastal regions of Santa Cruz, San Mateo, and Monterey County, from June 2007 to March 2010 they conducted 395 cleanups where volunteers removed a total of 19,080 plastic bags. Unchecked, this material would have likely entered the marine environment of the Monterey Bay National Marine Sanctuary (MBNMS). NO EVIDENCE IS CITED.

We have no way of verifying this allegation as there is no report referenced in the Initial Study. Anyway, the figure is unremarkable. It amounts to only 48 plastic bags per cleanup! There is no indication of what other trash was found such as paper bags. Further, there is no reason to believe that trash collected from inland or even beach cleanups in San Mateo and elsewhere would "likely" have entered the MBNMS.

- Page 6 and proposed ordinance: "Plastic bags returned to supermarkets may be recycled into plastic lumber; however, a very low percentage of bags are actually returned. Recycling bags into lumber does not reduce the impact of making new plastic carryout bags."

In fact, plastic bags are often turned into new plastic bags. (Exhs. SC110, SC111.)

- Pages 6-7 and proposed ordinance: "According to Californians Against Waste, Californians pay up to \$200 per household each year in state and federal taxes to clean up litter and waste associated with single-use bags, on top of the \$40 per household per year in hidden grocery costs to offset the expense to nearly 1,000 "free" bags received from grocers." NO EVIDENCE IS CITED.

THE ALLEGATION IS NOT TRUE. In fact the allegation is absurd. *This is a false and outrageous allegation which misinforms decision makers and the public and STPB demands that it be retracted. It is incredible that a government entity such as Santa Cruz County can engage in perpetrating such falsehoods.*

The entire litter budget for the state of California is \$375 million. That is not just for plastic bags; it is for everything. (Exh. SC115.)

The population of California is 36.4 million. \$375 million divided by 36.4 million is \$10.30 per person to clean up all kinds of litter, *including but not limited to plastic bags.*

Plastic bags constitute less than 1% of litter. (Exhs. SC121, SC122, SC123, SC124, SC125, SC126.) Even if we assume a 5% figure for the sake of argument, the total annual cost per person for cleaning up plastic bags amounts to 51 cents, which is what it will cost consumers to pay for two paper bags under the ordinance.

Plastic bags are a small percentage of litter. Eliminating them won't save a penny in litter cleanup costs because other litter will still need to be cleared from the same locations: cigarette butts, paper cups, bottles, etc. In other words, the additional cost per person for cleaning up plastic bag litter is zero.

### CEQA REQUIREMENTS

The proposed ordinance has a potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. Therefore, the County is required to prepare an EIR or issue a negative declaration. (Pub. Res. Code §21080(c), (d), §21151; CEQA Guidelines §15378(a).)

In issuing the Negative Declaration, the County is presumably relying on Pub. Res. Code §21080(c)(1) and Guidelines §15061(b)(3), which is known as the "Common Sense Exemption." Guidelines §15061(b)(3) states as follows:

Where it can be seen *with certainty* that there is *no possibility* that the activity in question *may* have a significant effect on the environment, the activity is not subject to CEQA.

In *Davidon Homes v. City of San Jose*, the Court of Appeal confirmed that all legitimate disputes must be settled in favor of preparing an EIR:

If legitimate questions can be raised about whether the project might have a significant impact and there is any dispute about the possibility of such an impact, the agency cannot find with certainty that a project is exempt.

((1997) 54 Cal.App.4th 106, 117.) This approach is incorporated in Guidelines §15064(g) which states:

[I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.

In *County Sanitation District No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, the Court of Appeal emphasized that this is a low threshold test designed to ensure that the environment is protected. The court stated:

We hold County was required to prepare an EIR under CEQA. This is because CEQA requires the preparation of an EIR whenever substantial evidence supports a fair argument that an ordinance will cause potentially significant adverse environmental impacts.

(*Id.* at 1558.)

California courts, including the Fifth Appellate District, routinely describe the fair argument test as a low threshold requirement for the initial preparation of an EIR that reflects a preference for resolving doubts in favor of environmental review....

In contrast to this description of the fair argument test, County asserts that “[a]ny reasonable doubts whether substantial evidence exists must be resolved in favor of the agency’s decision.” This assertion is rejected because (1) it misstates the low threshold of the fair argument test and (2) the case relied upon by County did not actually involve the fair argument test or the approval of a negative declaration....

(*Id.* at p. 1579.)

A logical deduction from the formulation of the fair argument test is that, if substantial evidence establishes a reasonable possibility of a significant environmental impact, then the existence of contrary evidence in the administrative record is not adequate to support a decision to dispense with an EIR.

(*Id.* at p. 1580.)

See also *Leonoff v. Monterey County Board of Supervisors* (1990) 222 Cal.App.3d 1337, 1348) [“If such evidence [supporting a fair argument of significant environmental impact] is found, it cannot be overcome by substantial evidence to the contrary.”]; *Friends of "B" Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002) [“[E]vidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be ‘fairly argued’ that the project might have a significant environmental impact.”]

See also *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2010) 181 Cal.App.4th 521 [Exh. SC84], pending review by California Supreme Court.

## CEQA OBJECTIONS

The numbered title headings herein are part of the objections.

### **1. STPB OBJECTS TO THE NEGATIVE DECLARATION ON THE GROUND THAT THE INCREASE IN THE NUMBER OF PAPER BAGS AND REUSABLE BAGS MAY HAVE A SIGNIFICANT NEGATIVE IMPACT ON THE ENVIRONMENT**

If plastic bags are banned and the number of paper bags may increase significantly.

The following life cycle assessments (LCA) constitute substantial evidence that paper bags are worse for the environment than plastic bags.

#### **THE 1990 FRANKLIN REPORT**

[Exh. SC21.]

The Franklin Report is a life cycle assessment of plastic bags and paper carryout bags used in the United States. It shows that plastic bags are substantially better for the environment than paper carryout bags for the following reasons: (see Conclusions section of report):

- The energy requirements for plastic bags are between 20% and 40% less than for paper carryout bags at zero percent recycling of both kinds of bags. Assuming paper carryout bags carry 50% more than plastic bags, the plastic bag continues to require 23% less energy than paper bags even at 100% recycling.
- Plastic bags contribute between 74% and 80% less solid waste than paper carryout bags at zero percent recycling. Plastic bags continue to contribute less solid waste than paper carryout bags at all recycling rates.
- Atmospheric emissions for plastic bags are between 63% and 73% less than for paper carryout bags at zero percent recycling. Plastic bags continue to contribute less atmospheric emissions than paper carryout bags at all recycling rates.
- At a zero percent recycling rate, plastic bags contribute over 90% less waterborne wastes than paper carryout bags. This percentage actually increases as the recycling rate increases. The landfill volume occupied by plastic bags is 70% to 80% less than the volume occupied by paper carryout bags based on 10,000 uses.

#### **THE 2005 SCOTTISH REPORT**

[Exh. SC55.]

[www.scotland.gov.uk/Resource/Doc/57346/0016899.pdf](http://www.scotland.gov.uk/Resource/Doc/57346/0016899.pdf)

The Scottish Report was issued by the Scottish Government. It is an environmental impact assessment of the effects of a proposed plastic bag levy in Scotland. The report (at page 22) takes into account the fact that a paper carryout bag holds more than a plastic bag and makes

appropriate adjustments. The report includes the following findings:

- Page vi: “If only plastic bags were to be levied..., then studies and experience elsewhere suggest that there would be some shift in bag usage to paper bags (which have worse environmental impacts).”
- Page 31: “[A] paper bag has a more adverse impact than a plastic bag for most of the environmental issues considered. Areas where paper bags score particularly badly include water consumption, atmospheric acidification (which can have effects on human health, sensitive ecosystems, forest decline and acidification of lakes) and eutrophication of water bodies (which can lead to growth of algae and depletion of oxygen).”
- Page 31: “Paper bags are anywhere between six to ten times heavier than lightweight plastic carrier bags and, as such, require more transport and its associated costs. They would also take up more room in a landfill if they were not recycled.”
- Page 23: Paper bags result in:
  - 1.1 times more consumption of nonrenewable primary energy than plastic bags.
  - 4.0 times more consumption of water than plastic bags.
  - 3.3 times more emissions of greenhouse gases than plastic bags.
  - 1.9 times more acid rain (atmospheric acidification) than plastic bags.
  - 1.3 times more negative air quality (ground level ozone formation) than plastic bags.
  - 14.0 times more water body eutrophication than plastic bags.
  - 2.7 times more solid waste production than plastic bags.

At page 3.1-15 of the Los Angeles County Final EIR, LA County states: “The Ecobilan LCA [Exh. SC13] was chosen above the other studies reviewed during preparation of this EIR because it is relatively recent; contains relatively sophisticated modeling and data processing techniques; considers a wide range of environmental indicators; considers paper, plastic, and reusable bags; was critically reviewed by the French Environment and Energy Management Agency; and contains detailed emission data for individual pollutants.” The Ecobilan LCA ratios of plastic versus paper bag environmental impacts [Exh. SC 14] are incorporated in the Scottish Report and stated above.



**THE 2007 BOUSTEAD REPORT**

[Exh. SC8.]

[www.americanchemistry.com/s\\_plastics/doc.asp?CID=1106&DID=7212](http://www.americanchemistry.com/s_plastics/doc.asp?CID=1106&DID=7212)

The Boustead Report is an extremely thorough and detailed life cycle assessment of the environmental impacts of plastic bags and paper carryout bags in the United States. It is packed with data. It studied the types of plastic bags and paper carryout bags commonly used in the United States. It takes into account that a paper carryout bag holds more than a plastic bag and applies an adjustment factor. It studied paper bags with 30% post consumer recycled content.

The report (at page 4) includes the following findings based on carrying capacity equivalent to 1000 paper bags:

**BOUSTEAD REPORT  
IMPACT SUMMARY OF VARIOUS BAG TYPES  
(Carrying Capacity Equivalent to 1000 Paper Bags)**

	<b>Paper (30% Recycled Fiber)</b>	<b>Compostable Plastic</b>	<b>Polyethylene</b>
Total Energy Used (MJ)	2622	2070	763
Fossil Fuel Use (kg)	23.2	41.5	14.9
Municipal Solid Waste (kg)	33.9	19.2	7.0
Greenhouse Gas Emissions (CO <sub>2</sub> Equiv. Tons)	0.08	0.18	0.04
Fresh Water Usage (Gal)	1004	1017	58

The Boustead Report analyzes paper bags with 30% post consumer recycled content. The County's proposed ordinance requires that paper bags have 40% post-consumer recycled content. An additional 10% of recycled content would not result in a 10% improvement in environmental impacts. (Obviously, a paper bag with 100% post consumer recycled content would not have zero negative environmental impacts.) But even if an extra 10% of recycled content decreased all environmental impacts of paper bags by 10%, paper bags are still far worse than plastic bags in every environmental category. For example, instead of consuming 2622 megajoules of total energy, 1000 paper bags would consume 2360 megajoules. Plastic bags with the same carrying capacity consume only 763 megajoules.

The Boustead Report was commissioned by Progressive Bag Affiliates, a plastic bag industry organization. It was peer reviewed by an independent third party, a Professor of Chemical Engineering at North Carolina State University. (Boustead report at pages 4, 63-64.) He is an expert on life cycle analysis with extensive experience in the field. He commented that the Boustead Report "provides both a sound technical descriptions (sic) of the grocery bag products and the processes of life cycle use.... Whatever the goals of the policy makers, these need to be far more explicit that general environmental improvement, since the life cycle story is consistent in favor of recyclable plastic bags." (Boustead report at page 63.)

The professor reviewed every single one of the figures in the report and disagreed with some of them. The Boustead report was amended to the extent that the Boustead report author agreed with the professor's comments. For example, the figure "103" for electricity in Table 9B was corrected to "154." (Boustead Report at pages 64 and 19.)

### **THE MARCH 2008 ULS REPORT**

[Exh. SC62.]

<http://use-less-stuff.com/Paper-and-Plastic-Grocery-Bag-LCA-Summary-3-28-08.pdf>

This report addresses the impact of San Francisco's ordinance banning plastic bags at large stores. San Francisco defines acceptable paper carryout bags as containing "no old growth fiber...100% recyclable... contains a minimum of 40% post-consumer recycled content." San Francisco Environment Code, Chapter 17, §1702(j). The report at pages 3-4 contains the following findings:

- Plastic bags generate 39% less greenhouse gas emissions than uncomposted paper carryout bags.
- Plastic bags consume less than 6% of the water needed to make paper carryout bags.
- Plastic bags consume 71% less energy during production than paper carryout bags.
- Plastic bags generate approximately only one-fifth of the amount of solid waste that is generated by paper carryout bags.

The report at page 5 concludes as follows:

Legislation designed to reduce environmental impacts and litter by outlawing grocery bags based on the material from which they are produced will not deliver the intended results. While some litter reduction might take place, it would be outweighed by the disadvantages that would subsequently occur (increased solid waste and greenhouse gas emissions) [from paper bags]. Ironically, reducing the use of traditional plastic bags would not even reduce the reliance on fossil fuels, as paper and biodegradable plastic bags consume at least as much non-renewable energy during their full life cycle.

The Franklin, Scottish, Boustead, ULS, and British Reports take into account the fact that paper bags hold more than plastic bags. The Scottish Report (at page 23) states that the calculations are "normalized against the volume of shopping carried." The Boustead report (at page 4) shows the impact of bag types based on "carrying capacity equivalent to 1,000 paper bags." The ratio in the Boustead report (see page 7) is 1,500 plastic bags = 1,000 paper bags. The ULS report is based on the Scottish (Carrefour/Ecobilan) and Boustead reports.

All of the reports show *based on equivalent carrying capacity*, that paper bags have much worse environmental impacts than plastic bags.



*The Weyerhaeuser pulp and paper mill, Longview, Washington State*

2. **STPB OBJECTS ON THE GROUND THAT IT CANNOT BE STATED WITH CERTAINTY THAT THE PROPOSED PAPER BAG FEE WILL SUFFICIENTLY REDUCE THE NUMBER OF PAPER BAGS TO OFFSET THE GREATER NEGATIVE ENVIRONMENTAL IMPACTS OF PAPER BAGS**

On June 2, 2008, Heal the Bay wrote a letter to the City of Manhattan Beach regarding the critical importance of a paper bag fee, stating as follows:

As the most ubiquitous alternative to plastic, paper bags are themselves fraught with environmental impacts. The production of paper bags contributes to natural resource depletion, greenhouse gas emissions and additional waterborne wastes from the pulping and paper making process. A paper bag fee is critical in driving the use of the most sustainable option, reusable bags, rather than shifting consumer use from plastic to paper carryout bags.

[Exh. SC22.]

On December 22, 2009, Heal the Bay also sent a letter containing scoping comments to Los Angeles County regarding its proposed EIR, stating as follows:

While paper bags are less likely to become persistent marine debris when disposed in the environment, serious negative environmental impacts occur during the production of these bags. The production of paper bags made from virgin materials contributes to deforestation, greenhouse gas emissions, and additional waterborne wastes. Thus, it is important that the County's action and environmental review consider an associated ban or fee on single-use paper bags.

(Exh. SC24, footnotes omitted.)

The County is proposing a flexible fee level for paper bags. The proposed ordinance states as follows:

During the period of time starting on the date that this chapter takes effect and continuing for one year thereafter, retail establishments shall charge 10-cents for each single-use paper checkout bag provided to customers at the point of sale. At the completion of the initial one-year period established by this subdivision, the charge shall increase to 25 cents per bag provided. ***There shall be a rebuttal presumption that this amount shall not be less than 10 cents for the first year and 25 cents thereafter. A store may charge a lesser amount if it submits a full accounting to the Director of Public Works, signed by a responsible manager under penalty of perjury, that identifies all costs including bag***

*purchase, shipping handling and storage, showing a lesser actual cost to the store for each bag.* Any such accounting shall expire one year from the date of original submission and must be resubmitted. Retail establishments shall keep annual records of paper bag distribution to be made available to the Director of Public Works, or designee upon request. The records shall be evaluated annually for the first five years by the County to ensure the effectiveness of the ordinance. If it is determined that single-use paper bag use has increased beyond anticipated levels, the Board of Supervisors shall consider increasing the minimum store charge to improve the effectiveness of the ordinance.

(Emphasis added.)

It is impossible to determine based on the proposed language what the amount of the paper bags fee will be. It will vary from store to store and possibly year by year. It could be as low as one cent and as high as 25 cents or more. The Board of Supervisors may or may not increase the fee if it deems that it is too low. *Therefore, for the purpose of the Initial Study, it cannot be assumed that the fee will be 25 cents after one year.*

The Initial Study does not state the costs of paper bags. In fact some paper bags cost as little as two cents meaning that the fee on those bags could be 2 or 3 cents. Here are some costs of paper bags based on research on the Internet:

- **Exh. SC102:** Duro bag kraft brown paper bags are available for \$42.95 for 500 bags. That is 8.59 cents per bag.
- **Exh. SC103:** Hardware paper bags are available for between \$5 and \$20 for 250 bags depending on size, based on a bundle of 10. That is between 2 cents and 8 cents per bag.
- **Exh. SC104:** 30 lb flat paper merchandise bags are available for between \$18 and \$68 for 1,000 bags depending on size, based on a bundle of 10. That is between 1.8 cents and 6.8 cents per bag.
- **Exh. SC105:** Grocery paper bags are available for \$9 to \$67 for 500 bags, depending on size and weight, based on a bundle of 10. That is 1.8 cents to 13 cents per bag.
- **Exh. SC106:** Duro bag natural paper bags are available for \$42.97 for 500 bags. That is 9 cents per bag.

*Moreover, the fee must be based on an amount sufficient to offset the negative environmental impacts of paper bags. By basing it on costs to the retailer, the disincentive factor is ignored.*



The paper bags in the photograph above are doubled bagged. They were doubled-bagged by a store cashier at the Trader Joe's on Bay Street in San Francisco. The photograph was taken by STPB's counsel, Stephen Joseph, who watched the double bagging. Stephen Joseph has observed Trader Joe's routinely double-bagging paper bags at its Bay Street store, even for light loads. The store manager told Stephen Joseph that the reason is that paper bag handles are weak and break and even the bottom of the bag may break with a heavy load.

If plastic bags are banned, the fee on paper bags should be high enough to ensure that double bagging is minimized.

Notice also that the bags are only half-filled. Bags are loaded based on the basis of weight and volume, not volume alone as the County incorrectly assumes at page 57 of the Initial Study.

At pages 55-56 of the Initial Study, the County states as follows:

Although programs to eliminate or reduce single-use disposable bags have been implemented all over the world, there are variations in the programs. The most well known example is the country of Ireland, which placed a charge on single-use plastic carryout bags in 2002. As a result of the charge, the use of single-use plastic bags was reduced by 90% almost immediately. Additionally, surveys completed in 2003 indicated that approximately 90% of consumers were using reusable bags, so it does not appear that there was a dramatic shift to paper bag use. Individual stores in Australia and Canada that charge for single-use plastic bags have experienced reductions of 83 and 97%, respectively. In recent follow-up to a charge on single-use carryout bags enacted in the District of Columbia, a \$0.05 charge for all single-use bags resulted in an immediate substantial reduction in their use during the first month. District staff estimates that the reduction is in the 50-80% range for both paper and plastic single-use carryout bags (Weise 2010).

Taiwan introduced its "Restricted Use Policy on Plastic Shopping Bags" in 2002. The policy does not mandate a particular level of levy. Retailers have the ability to set and retain the levy per plastic bag. Before the introduction of the levy, the plastic shopping bag usage in Taiwan was about 2.5 bags/person/day. After the introduction of the levy, the plastic shopping bag usage dropped by 80% in the first year, but slightly rebounded subsequently (Hong Kong Legislative Council, 2009).

A survey of residents of the City of San Jose, California conducted in the spring/summer of 2010 did indeed verify that a higher charge on single-use paper bags and a ban on single-use plastic bags would increase customers' use of reusable bags. But the survey also identified a very high level of initial participation even with a \$0.10 charge. Of those responding to the survey, 81% indicated they would bring reusable bags for shopping if plastic bags were banned and recycled content paper bags cost \$0.10. With a \$0.25 charge on paper bags, 90% of the survey respondents would bring reusable bags (City of San Jose, 2010). This supports the County's assumptions in drafting the proposed ordinance that the environmentally aware citizens of Santa Cruz County would respond positively to the proposed ordinance. Based on these results, it is anticipated that the number of single-use paper bags used in the unincorporated County may be substantially reduced when a store charge is imposed....

Using the behavior change estimates described above and in the Herrera report, it is estimated that with the ban on plastic bags and a \$0.10 charge on paper bags, 65% of people would use reusable bags or no bag, and 35% of people would use paper bags. Using these percentages, it is possible to estimate the number of bags that would be used in the unincorporated areas of the county.

We shall examine each of the jurisdictions and bases cited by the County in turn.

### IRELAND PLASTAX

The Ireland PlasTax is now 22 Euro cents, which at today's exchange rate is U.S. 30 cents. See Heal the Bay letter to the City of Santa Monica [Exh. SC23] and Reuters article entitled "Ireland to raise "green" tax on plastic bags [Exh. SC29].

When the Ireland PlasTax was lower, there was a major shift to replacement plastic bags. See Irish Examiner article entitled "Shoppers still bagging plastic bag sales" [Exh. SC30].

The County states that "it does not appear that there was a dramatic shift to paper bag use" in Ireland. *In fact, there is no evidence that paper bags are or have ever been offered in Ireland.*

The choice in Ireland may be between plastic bags and reusable bags, or it may be between plastic bags, biodegradable plastic bags, compostable bags, paper bags and reusable bags. If free bags are offered, there is no indication regarding the percentage of consumers who have switched to such free bags.

There is no indication of the cost of reusable bags in Ireland. They may be cheaper than 22 Euro cents or not much more expensive.

The value of money in Ireland is different than Santa Cruz County. They are different economies.

Consumers in Ireland may be more favorably predisposed and environmentally conscientious about using reusable bags than consumers in Santa Cruz County. The City of San Jose states at page 28 of its draft EIR [Exh. SC101] which is part of its Final EIR [Exh. SC79] as follows:

The programmatic variations in combination with differences in physical conditions and cultures make it difficult to project the exact results of a program being implemented in San Jose. It is agreed that banning a type of bag will significantly reduce the use of that type of bag, but what will the public do instead? Behavior is influenced by a number of circumstances, including cost and convenience, but also by perceptions, values, and beliefs.



**INDIVIDUAL STORES IN  
AUSTRALIA AND CANADA**

The County states: "Individual stores in Australia and Canada that charge for single-use plastic bags have experienced reductions of 83 and 97%, respectively." The County does not cite any evidence whatsoever for this assertion or indicate the identities of the stores or amounts of the fees and STPB therefore objects to the assertion as a basis for any findings.

**DISTRICT OF COLUMBIA**

The County states as follows:

In recent follow-up to a charge on single-use carryout bags enacted in the District of Columbia, a \$0.05 charge for all single-use bags resulted in an immediate substantial reduction in their use during the first month. District staff estimates that the reduction is in the 50-80% range for both paper and plastic single-use carryout bags (Weise 2010).

At page 74 of the Initial Study, the Weise reference is described as follows:

Weise, Barry J.D. 2010. Personal communication with Barry Weise, J.D., Legislative & Regulatory Analyst for the District of Columbia Department of the Environment, by the City of San Jose. June 2, 2010.

STPB objects to the citing of a telephone conversation as evidence. We have no way of verifying what was said in that conversation or the basis for Mr. Weise's estimates.

The District of Columbia Government and retailers have been giving away reusable bags since the effective date of the fee on January 1, 2010. Four documents are provided herewith showing a huge number of free reusable bags given to District of Columbia shoppers as follows. [Exhs. SC9, SC10, SC11, SC12.]

- Giant Food stores gave away 250,000 reusable bags.
- CVS pharmacies in association with the DC Government gave away 112,000 reusable bags.
- Safeway stores gave away 10,000 reusable bags.
- Target gives a 5-cent discount for each reusable bag that customers provide.
- The District of Columbia law establishing the fee requires some of the proceeds to be used to fund giveaways of reusable bags on a continuing basis.

According to the latest U.S. Census, the number of households in the District of

Columbia is 248,338. [Exh. SC61.] *That means that on average, every household in the District of Columbia received 1.5 free reusable bags in 2010.* That explains why there has been an upsurge in the number of reusable bags, rather than the fee on plastic and paper bags. *The County is not proposing similar programs.*

When the reusable bags given away in 2010 become dirty and worn, they will be discarded. At that point, the majority of consumers may prefer to pay the 5-cent fee rather than purchase more expensive reusable bags.

The value of money in the District of Columbia is different than Santa Cruz County. They are different economies.

Consumers in the District of Columbia may be more favorably predisposed and environmentally conscientious about using reusable bags than consumers in Santa Clara County.

#### TAIWAN

The County states as follows:

Taiwan introduced its "Restricted Use Policy on Plastic Shopping Bags" in 2002. The policy does not mandate a particular level of levy. Retailers have the ability to set and retain the levy per plastic bag. Before the introduction of the levy, the plastic shopping bag usage in Taiwan was about 2.5 bags/person/day. After the introduction of the levy, the plastic shopping bag usage dropped by 80% in the first year, but slightly rebounded subsequently (Hong Kong Legislative Council, 2009).

If Taiwan did not impose a particular level of fee, there is no point in citing it in the Initial Study as it proves nothing. STPB therefore objects.

#### SAN JOSE SURVEY AND HERRERA ESTIMATES

The San Jose survey is just a survey, not actual experience with a paper bag fee. Therefore, it does not satisfy the requirement of a showing with certainty based on substantial evidence. Moreover, we do not know what the fee for paper bags will be in Santa Cruz. As shown above, when a paper bags fee is based on costs as in the proposed ordinance, the fee may be as little as 2 or 3 cents.

The Herrera estimate is just that: an estimate. It is not a certainty. Therefore, it does not satisfy the requirement of a showing with certainty based on substantial evidence.

While on the topic of estimates, we can also discuss here Scenarios 1A and 1B in the Nolan-ITU study. (Exh. SC5.) The scenarios are a 15-cent fee and a 25-cent fee respectively, would also involve an "expanded Code of Practice" which is not part of the Santa Clara County proposal. This is critically important. The Nolan-ITU study states at page 55 as follows:

In these scenarios there would also be an expanded Code of Practice of retailers which would specify that reusable bags were made available as an alternative (to use and to purchase) in every retail store. *There would be a standard grocery reusable bag and once purchased the expanded Code of Practice would ensure that this bag be replaced free of charge when the customer returns the old reusable bag to the store.* Once returned to the retailer in exchange for a free replacement the old reusable bag would be recovered for recycling. In addition all large stores would have drop-off facilities for the recycling of single use plastic bags. Industry would make a commitment towards the use of recycled and Australian content in both single use plastic bags and in reusable bags. This would help ensure that the reduction in the use of plastic bags does not excessively harm the Australian industry.

(Emphasis added.) The free replacement of reusable bags in the Australian scenarios is a critical difference compared to Santa Cruz County. Therefore, the Australian Nolan-ITU study scenarios are not valid for Santa Cruz County.

**3. STPB OBJECTS ON THE GROUND THAT IF FOOD PROVIDERS ARE PROHIBITED FROM PROVIDING PLASTIC BAGS FOR PREPARED TAKE-OUT FOOD, THERE WILL BE NO FEE ON PAPER BAGS AND THEREFORE THERE WILL BE A HUGE INCREASE IN THE NUMBER OF PAPER BAGS**

In the proposed ordinance, the City is proposing as an option, that food providers be prohibited from providing plastic bags for prepare take-out food “without a store charge.” (Initial Study at page 19.) If that clause is adopted, the one-for-one switch of plastic to paper bags will certainly result in an increase in greenhouse gas emissions and the other significant impacts of paper bags versus plastic bags. Therefore STPB objects to the Initial Study and proposed Negative Declaration as there will be a significant negative impact on the environment as a result in the huge increase in the number of paper bags distributed by food providers.

**4. STPB OBJECTS ON THE GROUND THAT THERE IS NO REQUIREMENT THAT STORES MAKE REUSABLE BAGS AVAILABLE TO CONSUMERS**

The proposed ordinance states: “Retail establishments are strongly encouraged to make reusable bags available for sale to customers at a reasonable price.” This language means that stores will be permitted to avoid selling or supplying reusable bags to consumers and instead sell paper bags to those who do not bring their own reusable bags.

**5. STPB OBJECTS ON THE GROUND THAT THE “MITIGATION” IS TOO WEAK TO BE EFFECTIVE AS A MATTER OF CERTAINTY**

In the Draft Mitigated Declaration, the Court states as follows:

*To ensure a reduction in greenhouse gasses is the result following adoption and implementation of the ordinance, it is vital that reusable carryout bags are made available and used at County of Santa Cruz retailers.* To ensure this reduction, the following mitigation shall be implemented: The County will work with retailers and members of the community to increase the availability and use of reusable carryout bags. The County is currently a member of the Central Coast Recycling Media Coalition (CCRMC), which coordinates education and outreach for numerous cities and counties in the Monterey Bay area. The County of Santa Cruz Department of Public Works will continue to contribute \$10,000 per year to CCRMC in support of ongoing programs promoting the use of reusable shopping bags.

(Emphasis added.)

The population of the unincorporated parts of the County is 134,262. (Exh. SC107.) If the entire annual expenditure of \$10,000 is spent on buying reusable bags at 25 cents each, that would only amount to 40,000 bags. And there would be nothing left for the “programs promoting the use of reusable bags.”

In fact, CCRMC is not a reusable bag-buying program. It is a *media* program. Its mission statement is as follows:

Central Coast Recycling Media Coalition (CCRMC) is a partnership of 24 public agencies and 5 private companies founded in 2000, whose mission is to promote uniform waste reduction, reuse and recycling *messages* in Monterey, Santa Cruz and San Benito Counties using *media* to help achieve sustainable lifestyles.

(Emphasis added.)

The County concedes that it is “vital” that reusable bags are made available and actually used at Santa Cruz retailers. An education and public relations program does not have a sufficiently certain outcome to satisfy this “vital” requirement” and therefore STPB objects. The proposed mitigation is not a basis for a Mitigated Negative Declaration under CEQA.

**6. STPB OBJECTS TO THE BASELESS ASSUMPTION THAT REUSABLE BAGS WILL BE USED ON AVERAGE MORE THAN TWO TIMES**

At page 13 of the Initial Study, the County states as follows:

However, because they can be used hundreds of times, reusable bags can be expected to have a lower environmental impact than plastic bags.

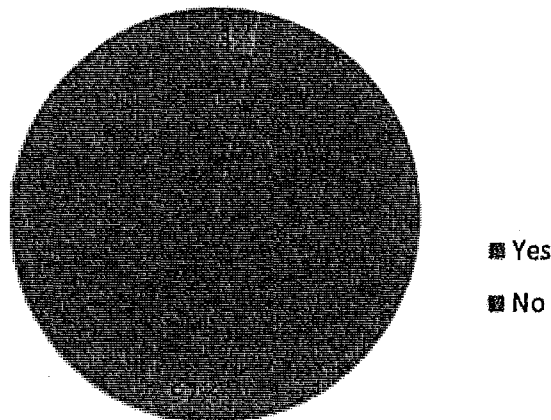
Just because a reusable bag can be used hundreds of times, that does not mean that it will be used hundreds of times.

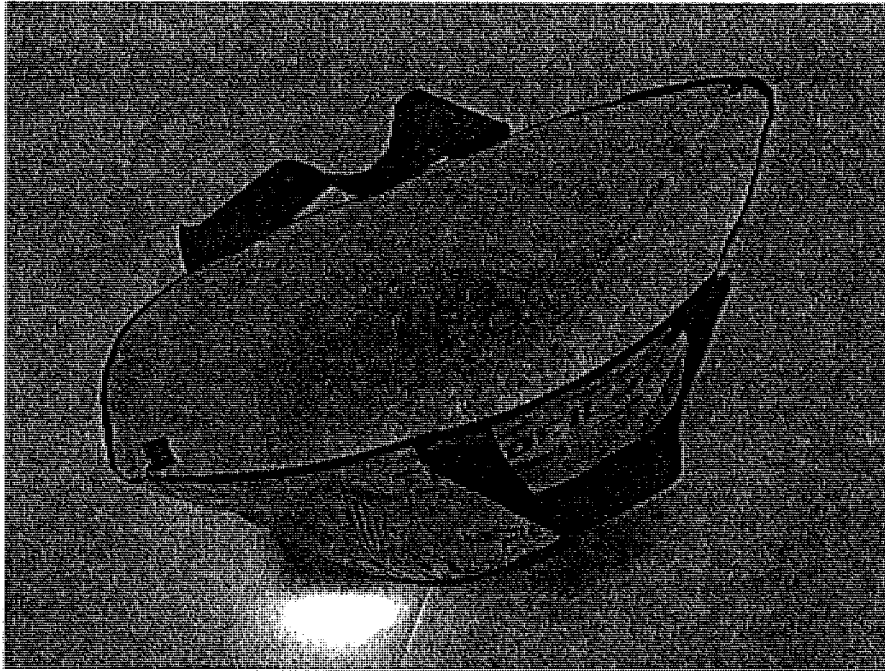
For the purpose of an Initial Study, the County must assume a reasonable worst-case scenario. People *may* use reusable bags an average of only two times before discarding them. It depends on the price a consumer has paid for the bag, how dirty the bag has become, how easy it is to clean, how many other reusable bags the consumer owns, and other factors.

(See article provided herewith: "Bag the bag: a new green monster is on the rise." [Exh. SC2.] See also television news report at: <http://video.au.msn.com/watch/video/green-bags/xglhja0>, which is hereby submitted into the administrative record in its entirety. [Exh. SC89.]

The overwhelming majority of consumers do not clean their reusable bags and would prefer to replace them. The University of Arizona asked consumers how often they wash their reusable bags. [Exh. SC64.] This is important, because as the University of Arizona study shows, reusable bags quickly accumulate dirt and dangerous bacteria if not washed. The result is shown in the following graphic in the University of Arizona study showing that 97% of consumers do not regularly wash reusable bags:

**Figure 7.Cleaned on a Regular Basis?**





**It would be disastrous from a public health standpoint to encourage consumers to reuse reusable bags multiple times if they do not wash them.**

Consumers would be more likely to buy a new reusable bag than wash a reusable bag. This will lead to an overproliferation of reusable bags resulting in a very low reuse rate. Overproliferation of reusable bags is a problem in Australia. An article on the situation in Australia states as follows:

The biggest backer of reusable bags accuses supermarkets of profiteering from their sales.

They were meant to save us from the plague of plastic bags. But reusable "green" bags are being oversold and creating a new proliferation problem, according to Ian Kiernan, who helped devise the environmental anti-plastic campaign.

Coles and Woolworths are profiteering from the popularity of so-called eco-friendly bags, the Clean Up Australia Day founder said. He accused the supermarket chains, which together have sold almost 20 million reusable bags, of "trading off the green potential" of the now ubiquitous products rather than encouraging shoppers to cut consumption.

"They haven't partnered with the community, which they should have done to get it to change behaviour instead of just shovelling

[the bags] out the door as quick as they can, selling them like a string of sausages.”

Australia's growing mountain of green bags, many of which end up in landfill, is causing concern. While consumption of disposable plastic bags has plummeted, we now have more reusable bags than are good for us, some environmentalists say.

“It’s swallowing up resources, it’s overconsumption. It was designed for people to keep reusing them, but people forget to take them to the supermarket and either buy another one or take a plastic bag,” Mr. Kiernan said. “But if we do away with them, the use of plastic bags is going to increase. I still think the green bag is a good thing, but they are not delivering the full benefit they could.”

Green bags, which sell in supermarkets for up to \$2.99, are typically made from non-woven polypropylene, a non-biodegradable byproduct of oil refining.

The bags, introduced in Australia in 2002, have spawned a stand-alone industry, including cooler bags, wine-bottle holders and pocket-sized fold-outs.

Leading retailers, such as Target and Bunnings Warehouse, now sell them in place of disposable plastic bags. Stocks have been buoyed further by companies giving away bags as promotional tools.

“There is a proliferation issue that we need to start addressing,” said Planet Ark campaigns manager Brad Gray.

“We've got a lot of people who are using them really regularly and using them the way they should, and we've also got a number of people who buy green bags regularly and don't use them on an ongoing basis.

“It has become a bit of a false environmental economy and a concern. They are made out of plastic, so you don't want a lot of them strewn over the world. But if they are used properly, over and over again, they have a good environmental benefit.”

Mr. Gray said governments should follow South Australia's ban on disposable plastic bags, introduced last May, to encourage reuse of more eco-friendly alternatives.

Coles sold more than 10 million reusable bags in the past 12

months, a 40 per cent increase on the previous year, partly because of the South Australian ban. Woolworths sold 8.82 million reusable bags last financial year, up almost 65 per cent on 2007-08.

Woolworths spokeswoman Clare Buchanan admitted it makes "a very small profit" on reusable bags. But Woolworths had worked hard to encourage customers to reduce consumption, including the provision of recycling bins in stores, she said.

Coles donated more than \$315,000 to Landcare from green bag sales in the past year, spokesman Jim Cooper said.

A report last year by the Sustainable Packaging Alliance, commissioned by Woolworths, found reusable bags have a lower environmental toll than single-use bags, but only when used 104 times - or once a week over two years. The impact on global warming of a reusable polypropylene bag used only 52 times is worse than a standard plastic shopping bag.

Anecdotal reports suggest many reusable bags are not meeting their environmental potential. Online forums include comments from users who have thrown away surplus green bags, used them as rubbish bin liners or given them to charity stores.

Smartbag sells about 5 million reusable bags a year, particularly for use as promotional tools, said director Chris Ballenden. "People are ending up with more of these, but is that worse or better than someone buying a shirt in an expensive paper bag and throwing it in the bin? I think, in general, there's an overconsumption in the West of every product, not just our bags.

"If people continue to collect 15 of them, they're going to continue to be made. If you're concerned about them, keep the one or two you use and stop accepting them."

The switch to green bags helped cut consumption of disposable plastic bags from about 5.9 billion in 2002 to 3.9 billion in 2007. But a report by consumer watchdog Choice, released last May, said many polypropylene bags ended in landfill.

Professor Michael Polonsky, who specialises in environmental marketing at Deakin University, said: "Whether we actually use green bags or not is actually irrelevant; we feel we're making a difference. But if they're not being used and not being recycled, you're creating more harm by using them."

[Exh. SC6.] See also television news report on the same subject at:



<http://video.au.msn.com/watch/video/green-bags/xglhja0>, which is hereby submitted into the administrative record in its entirety. [Exh. SC37.]

Based on the foregoing, a multiplier of two would be the highest reasonable worst-case scenario number. STPB objects to any higher multiplier being used for the purpose of determining the *possible* significant environmental impacts of the proposed ordinance.

**7. STPB OBJECTS ON THE GROUND THAT THE INCREASE IN THE NUMBER OF REUSABLE BAGS MAY HAVE A SIGNIFICANT NEGATIVE IMPACT ON THE ENVIRONMENT**

All manufactured products create environmental impacts during their life cycles. Reusable bags are no exception.

The Scottish Report incorporated the Carrefour/Ecobilan LCA. The only type of reusable bag studied in the Carrefour/Ecobilan/Scottish Report is a Low Density Polyethylene (LDPE) bag. The Scottish Report's findings regarding LDPE bags (which are the Carrefour/Ecobilan findings) are as follows:

**CONTINUED ON NEXT PAGE**

CARREFOUR / ECOBILAN / SCOTTISH REPORTTable 4.3 Environmental impacts of different types of carrier bag relative to a lightweight plastic carrier bag<sup>26</sup>

Indicator of environmental impact	HDPE bag (lightweight)	Reusable LDPE bag (used 2x)	Reusable LDPE bag (used 4x)	Reusable LDPE bag (used 20x)	Paper bag (single use)
Consumption of non-renewable primary energy	1.0	1.4	0.7	0.1	1.1
Consumption of water	1.0	1.3	0.6	0.1	4.0
Climate change (emission of greenhouse gases)	1.0	1.3	0.6	0.1	3.3
Acid rain (atmospheric acidification)	1.0	1.5	0.7	0.1	1.9
Air quality (ground level ozone formation)	1.0	0.7	0.3	0.1	1.3
Eutrophication of water bodies	1.0	1.4	0.7	0.1	14.0
Solid waste production	1.0	1.4	0.7	0.1	2.7
Risk of litter <sup>27</sup>	1.0	0.4	0.4	0.4	0.2

As we can see, based on two times usage, an LDPE reusable bag has greater environmental impacts than a plastic bag except for ground level ozone formation and risk of litter.

The Hyder report is based entirely on the Nolan-ITU study and does not include any independent findings. STPB objects to the County's reliance on the Nolan-ITU [Exh. SC5] and Hyder studies [Exh. SC26] as they do not contain life cycle assessments of PP (polypropylene) bags, cotton/cloth, PET, or any other reusable bags and are not substantial evidence on which to base any findings regarding the environmental impacts of reusable bags. At page 34 of the Nolan-ITU study it states:

A streamlined LCA was undertaken to compare the environmental impacts of each alternative packaging system. This was done using SimaPro software with a combination of Australian data (where available) and international data. This data is the result of a streamlined study using existing data, rather than data from the actual processes used for each specific bag. The results should therefore be used with caution, as indicative data rather than a full

scientific study of relative impacts.

There is no indication of the source or nature of the “Australian data (where available) and international data” and the data are not provided in the study. Various “assumptions” are noted in Appendix A of the Nolan-ITU report, but the data used for the greenhouse gas and primary energy usage calculations are not in that appendix.

Table 4.3 of the Nolan-ITU study makes “indicative” findings based upon the “expected life” of each type of bag as set forth in table 4.2 of the study. “Expected life” is *not* the same as the average number of times a reusable bag is reused. “Expected life” is a best-case scenario, not a reasonable worst-case scenario. In a CEQA Initial Study, we are concerned with significant environmental impacts that *may* occur; that is, a reasonable worst-case scenario.

**CONTINUED ON NEXT PAGE**

## AUSTRALIAN GOVERNMENT'S NOLAN-ITU REPORT

### Table 4.2 – Assumptions for Use of Shopping Bag Alternatives

Alternative	Weight	Relative Capacity	Bags per Week	Expected Life	Bags per Year
Singlet HDPE	6g <sup>1</sup>	1 (6-8 items)	10	Single trip	520
50% recycled singlet HDPE	6g <sup>1</sup>	1	10	Single trip	520
Boutique LDPE (single use)	18.1 <sup>2</sup>	0.8	12.5	Single trip	650
Reusable LDPE	35.8 <sup>2</sup>	1.5	6.7	12 trips (3 months)	26.8
Calico	125.4g <sup>2</sup>	1.1	9.1	52 trips (1 year)	9.1
Woven HDPE swag	130.7g <sup>3</sup>	3	3.3	104 trips (2 years)	1.65
PP fibre 'Green Bag'	PP 65.6g; Nylon base 50.3g <sup>3</sup>	1.2	8.3	104 trips (2 years)	4.15
Kraft paper – handled	42.6g <sup>2</sup>	1	10	Single trip	520
Solid PP 'Smart Box'	250g <sup>3</sup>	2	5	156 trips (3 years)	1.66
Biodegradable - starch based	12.5 <sup>2</sup>	1	10	Single trip	520

1. Assumption made on average bag weight
2. Actual weight of sample

### Table 4.3 – Assessment of Alternatives – 52 Shopping Trips per Year

Alternative	Material Consumption (kg)	Litter (g)	Litter (m <sup>3</sup> )	Litter (m <sup>3</sup> /y)	Greenhouse (CO <sub>2</sub> eq/y)	Primary Energy Use (MJ)
Singlet HDPE	3.12	15.6	0.144	0.72	6.08	210
50% recycled singlet HDPE	3.12	15.6	0.144	0.72	4.79	117
Boutique LDPE (single use)	11.77	58.8	0.195	0.975	29.8	957
Reusable LDPE	0.96	4.8	0.0121	0.0603	2.43	78
Calico	1.14	5.7	0.0041	0.0819	2.52	160
Woven HDPE swag	0.22	1.1	0.00148	0.00743	0.628	18.6
PP fibre 'Green Bag'	0.48	2.4	0.00187	0.00934	1.96	46.3
Kraft paper – handled	22.15	111	0.156	0.078	11.8	721
Solid PP 'Smart Box'	0.42	NA	NA	NA	1.1	38.8
Biodegradable - starch based (Mater-Bi)	6.5	32.5	0.156	0.078	6.61 <sup>1</sup>	61.3

1 – Assumed to break down into carbon dioxide

The “bags per year” assumptions in table 4.2 of the Nolan-ITU study are not based on substantial evidence. They are merely scenarios. If the number of reusable bag uses is changed to two, which is the reasonable worst-case scenario, then the figures in table 4.3 of the Nolan-ITU study would change dramatically as follows:

**ADJUSTED ENVIRONMENTAL IMPACTS CALCULATED  
BASED ON NOLAN-ITU TABLES 4.2 AND 4.3**

**REUSABLE BAG USAGE FACTOR = 2**

<b>Alternative</b>	<b>Material Consumption (kg)</b>	<b>Greenhouse (CO<sub>2</sub> equiv)</b>	<b>Primary Energy Use (MJ)</b>
Singlet HDPE	3.12	6.08	210
50% recycled HDPE	3.12	4.79	117
Boutique LDPE (single use)	11.77	29.8	957
Reusable LDPE	$0.96 * 6 = \mathbf{5.76}$	$2.43 * 6 = \mathbf{14.58}$	$78 * 6 = \mathbf{468}$
Calico	$1.14 * 26 = \mathbf{29.64}$	$2.52 * 26 = \mathbf{65.52}$	$160 * 26 = \mathbf{4,160}$
Woven HDPE swag	$0.22 * 52 = \mathbf{11.44}$	$0.628 * 52 = \mathbf{32.656}$	$18.6 * 52 = \mathbf{967.2}$
PP fibre ‘Green Bag’	$0.48 * 52 = \mathbf{24.96}$	$1.96 * 52 = \mathbf{101.92}$	$46.3 * 52 = \mathbf{2,407.6}$
Kraft paper - handled	22.15	11.8	721
Solid PP ‘Smart Box’	$0.42 * 78 = \mathbf{32.76}$	$1.1 * 78 = \mathbf{85.8}$	$38.8 * 78 = \mathbf{3,026.4}$
Biodegradable – starch based (Mater-Bi)	6.5	6.61	61.3

Referring to the Nolan-ITU study figures regarding PP bags, an article by RMIT University states:

However, a sensitivity analysis found that the benefits of a reusable bag depend on the number of times each bag is used during its life. For example, if a reusable PP 'green bag' is only used 52 times (weekly for a year) instead of the assumed 104 times (weekly for 2 years) then its impact on global warming is higher than the impact of each of the single-use bags, except the paper bag."

"Evaluating the sustainability impacts of packaging: the plastic carry bag dilemma," Lewis, Verghese and Fitzpatrick, *Packaging Technology and Science*, page 149. [Exh. SC20.]

As we can see from the above table, material consumption, greenhouse gas equivalents, and primary energy use are far higher for reusable bags if they are reused two times (assuming for present purposes that the Nolan-ITU study figures are valid and reliable).

At pages 13 and 14, it displays environmental impacts as symbols, not metrics. It states at page 1-2 as follows:

No new modeling (sic) has been undertaken for this project. Data presented in this report has been drawn from a streamlined Life Cycle Assessment (LCA) undertaken in 2002 / 2003 by the Centre for Design at RMIT University for the Department of Environment and Heritage (Department of Environment and Heritage 2002, Department of Environment and Heritage 2003) [i.e. the Nolan-ITU study], with a minor update correcting for changes in bag masses, relative capacity, and recycling rates. Also at this point, updated data on paper production was included which reduced the overall impacts of paper bags.

The streamlined LCA of shopping bags commissioned by the Department of Environment and Heritage focused on reusable and degradable bag options and was scoped without extensive industry consultation or primary inventory data collection. Data was derived from existing published inventory information.

Based on the foregoing, particularly the adjusted Nolan-ITU study findings based on a factor of two reusable bag reuses, the County cannot make a determination as a matter of certainty that a switch to reusable bags will not have significant cumulative negative environmental impacts along with the increase in the number of paper bags. STPB objects to the County's determination that a switch to reusable bags could not have such impacts.

**THE 2011 BRITISH REPORT**

[Exh. SC80.]

[http://www.environment-agency.gov.uk/static/documents/Research/Carrier\\_Bags\\_final\\_18-02-11.pdf](http://www.environment-agency.gov.uk/static/documents/Research/Carrier_Bags_final_18-02-11.pdf)

In February 2011, the United Kingdom Government's Environment Agency published a life cycle assessment of plastic, paper, and reusable bags. Exh. SC99 is a summary of the British Report.

The British Report found that:

- The environmental impact of all types of carrier bag is dominated by resource use and production stages. Transport, secondary packaging and end-of-life management generally have a minimal influence on their performance. (Exec. Summary)
- "Recycling or composting generally produce only a small reduction in global warming potential and abiotic depletion." (Exec summary)
- 40.3% of plastic bags are reused as bin liners. (Study at p. 30)
- "Reuse as bin liners produces greater benefits than recycling bags." (Exec summary)
- "When each bag was compared with no primary reuse (i.e. no reuse as a carrier bag), the conventional HDPE bag had the lowest environmental impacts of in eight of the nine impact categories, because it was the lightest bag considered." The study did not consider litter impacts. (Study at 56.)
- The table and chart on the following pages summarize the conclusions of the study regarding global warming impacts. (Exec summary)

Note: Conventional plastic bag carryout bags are referred to in the British Report HDPE bags. Plastic carryout bags used in the USA are made from the same materials as HDPE bags used in Britain. [Exh. SC81.]

**CONTINUED ON NEXT PAGE**

**BRITISH REPORT**  
(Exec summary)

**NUMBER OF TIMES THAT ALTERNATIVE BAGS HAVE TO BE USED  
TO PRODUCE LESS GLOBAL WARMING THAN PLASTIC BAGS**

Plastic bag = 1

Type of carrier	HDPE bag (No secondary reuse)	HDPE bag (40.3% reused as bin liners)	HDPE bag (100% reused as bin liners)	HDPE bag (Used 3 times)
Paper bag	3	4	7	9
LDPE bag	4	5	9	12
Non-woven PP bag	11	14	26	33
Cotton bag	131	173	327	393

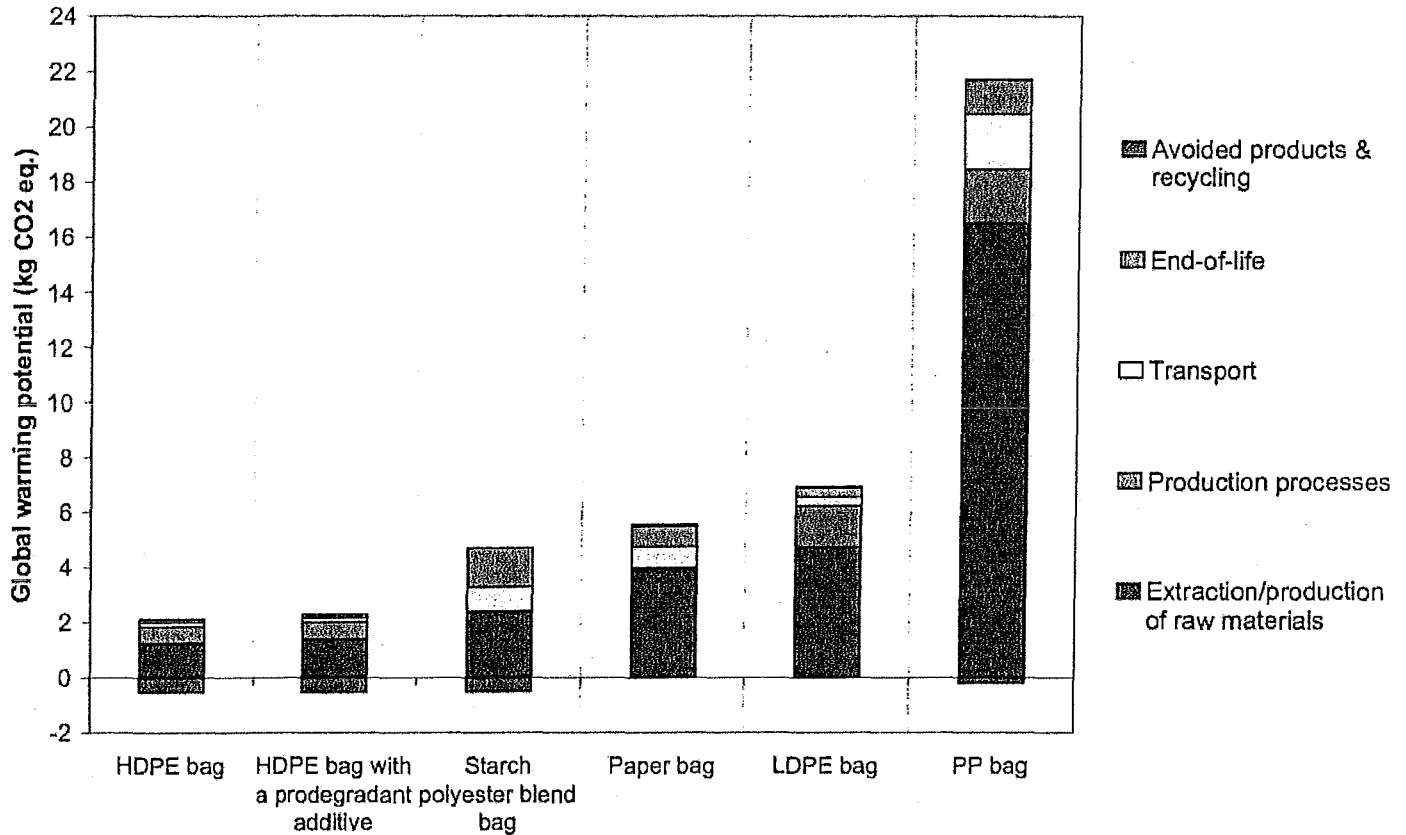
Based on the above table, if a consumer uses a cotton bag only 130 times and then discard it, more global warming will have been created than if 130 conventional plastic carryout bags had been used. If a consumer has two cotton reusable bags and discards one of them without reusing it, the other would have to be used 262 times.

CONTINUED ON NEXT PAGE



**BRITISH REPORT**  
(Page 33)

"The cotton carrier bag is not shown in [the following table], because its [global warming potential] is more than ten times that of any other carrier bag." (British LCA at 33)



The above chart shows that the most important factor in determining the degree to which a bag produces global warming is the material from which the bag is made. Clearly, the best material is HDPE.

**8. STPB OBJECTS TO THE NEGATIVE DECLARATION ON THE GROUND THAT REUSABLE BAGS MAY HAVE A SIGNIFICANT NEGATIVE NET IMPACT ON THE ENVIRONMENT AS A RESULT OF HEAVY METALS CONTENT**

STPB recognizes that the proposed ordinance contains a requirement that all reusable bags do not contain lead, cadmium or other metals in toxic amounts. However, the proposed ordinance does not define toxic amounts. This is a critical omission.

In California, reusable bags are exempt from the toxic metals restrictions applicable to plastic and paper bags. Health & Safety Code §25212(h)(2).<sup>1</sup>

With the restrictions removed, reusable bags provided by stores in the County, including reusable bags imported from China, may legally contain lead, mercury, cadmium, and hexavalent chromium.

Health and Safety Code §25214.13 defines a toxic amount for the purpose of regulating packaging including plastic and paper bags as

“the sum of the incidental total concentration levels of all regulated metals present in a single-component package or in an individual packaging component exceeds 100 parts per million by weight.”

That definition needs to be incorporated into the proposed ordinance. Otherwise, “toxic amounts” has no meaning at all and the County will be permitting reusable bags to be distributed in the County with high levels of toxicity caused by lead, cadmium or other heavy metals.

In the absence of a definition of “toxic amounts” in the EIR and proposed ordinance that meets the state standard in Health and Safety Code §25214.13, that is 100 pm, the County must address and disclose in an EIR the extent to which heavy metals are or may be present in reusable bags and the impacts on the environment, including but not limited to hazardous waste disposal issues. STPB objects to the failure to do so.

Los Angeles County has been handing out reusable bags to the public. We had two of those bags tested. The results are provided herewith. Both bags tested positive for heavy metals. One of the bags contained more than 100 parts per million of lead. [Exhs. SC88, SC89; Exhs. SC90, SC91, SC92 are photos of the tested bags.] This is a serious environmental and health concern. However, our testing turned out to be the tip of the iceberg.

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<sup>1</sup> The restriction on toxic heavy metals in reusable bags was repealed by a bill authored by Assembly Member Julia Brownley (D-Santa Monica) in 2008. [Exh. SC87] Assembly Member Brownley is the author of AB 1998, which would have banned plastic bags. She is the leading proponent in the Legislature for of banning plastic bags.

The Tampa Tribune has reusable bags tested. [Exhs. SC93, SC94.] The newspaper reports as follows: [Exh. SC94.]

Grocery chain Winn-Dixie sells a reusable grocery bag with two sturdy handles, pictures of cute baby faces and enough toxic lead to alarm health experts.

The bag contains enough lead that Hillsborough County could consider the bag hazardous if thrown out with household trash, according to independent laboratory tests commissioned by The Tampa Tribune.

It's not just Winn-Dixie.

Tribune tests also showed some Publix reusable bags had lead levels that exceed federal limits for paint and exceeded rules coming soon for children's toys. Though the bags comply with other limits, Publix, in a cautionary move, asked its bag suppliers to lower lead content in bags. That decision came after officials were told the results of the Tribune tests.

Winn-Dixie officials said they have an "opportunity to improve" after Tribune tests showed bags exceeded federal limits for paint. This presents a dilemma for shoppers who avoid paper or plastic for environmental reasons. Lead is linked to learning disabilities in children and fertility problems in adults. The answer for shoppers appears to be: Not all bags are created equal, the lab tests showed.

The more elaborate the illustrations on the bags, the more likely they contained toxins. Yellow and green paint on bags is a common carrier of lead.

"For me, personally, I would balk at buying these types of bags," said Hugh Rodrigues, owner of Thornton Laboratories, which tested 13 bags for the Tribune. "I'd choose paper bags."

Those can be recycled easily, he said.

The Tampa Tribune purchased two-dozen reusable bags from the largest grocery companies in the Bay area this fall and paid for two rounds of tests at Thornton Laboratories in Tampa, which regularly tests food and chemicals for industrial clients, and has tested children's jewelry for the Tribune.

Some health advocates say there is no safe level for lead, calling it a toxin at any level.

Florida has no clear regulation focused on lead in bags, so lab officials and health advocates point to a conflicting series of government rules regarding consumer products.

Currently, the U.S. Consumer Product Safety Commission allows 300 parts per million of lead in children's products. In August, that level will fall to 100. And any paint on consumer products can contain no more than 90 parts per million.

The packaging industry is pushing for a limit of 100 parts per million, and it helped enact laws in 19 states to limit lead. Florida has not signed on, said Patty Dillon, a spokeswoman for the Toxics in Packaging Clearinghouse.

In the first round of tests, the Baby Faces bag from Winn-Dixie showed the highest levels of lead, 121 parts per million, and showed 117 in the second.

A bag from Publix with a University of South Florida theme approached the 100 parts per million threshold, with a level of 87 parts per million in the first tests, and showed 194 parts per million in a second test -- the highest result of any bag in Tribune tests.

The differences between the two tests likely came from different production runs at the manufacturer, Rodrigues said.

The lead appears to be in a form that is not easily extracted or leached, Rodrigues said. It is not in a form that would rub off on food simply by touching the bag, like wet paint, he said, but over time, bags wear down and paint can flake off and threads can fray, releasing the lead.

Environmental Protection Agency rules require that any product with a lead content higher than 100 parts per million should technically undergo further testing before landfills accept them for disposal, he said.

Publix officials stress that their bags are not toys or paint, and thus comply with current federal rules. But after reviewing the Tribune test results last week, Publix officials said they took action.

"We have already contacted the supplier of this bag and asked them to look at reducing the lead content, even though it is within government safety standards," said spokeswoman Shannon Patten.

"We would never knowingly carry something in our stores that wasn't in compliance with government regulations, and we work

hard every day to bring safe, high-quality products to our customers.”

Publix will refund the purchase price of bags to any concerned shopper, she said. Winn-Dixie also said it would refund the cost of a bag. Lead in bags may have emerged as the surprise issue of the year for grocers and consumers.

Shoppers have been switching to reusable totes, avoiding plastic bags to help the environment and lessen the nation's dependence on oil used to make the plastic. Some states want to ban inexpensive plastic bags or impose a tax to discourage their use. Reusable bags seemed the natural solution.

Fitting the Reduce, Reuse, Recycle mantra, reusable bags have become popular, even fashionable, with elaborate designs, holiday themes and sports team logos. Publix has sold 13 million reusable bags, saving an estimated 1 million plastic bags a day.

However, this summer, an independent group tested bags from the upscale Wegmans grocery company and found some contained lead at 799 parts per million, well beyond levels that health officials consider problematic.

Wegmans commissioned its own tests, which also found lead, and immediately stopped selling two styles of bags, one with a green pea design and one with a holiday illustration. (No other designs were affected.) Wegmans posted signs in stores telling customers the bags were safe to use, but should be returned to the store before disposal.

“Lead is a neurotoxin, a carcinogen and affects children's IQ,” said Judy Braiman of Rochesterians Against the Misuse of Pesticides, the first outside group to test Wegmans bags. “It's ironic that everyone is really trying to be good for the environment, and then these bags have lead all over the place.”

Winn-Dixie officials reviewed the Tribune results and said they were confident their bags were “safe to use and reuse as intended.” That said, the Tribune test “suggests there is an opportunity to improve this solution as it pertains to disposal of these bags, and ensure the ongoing benefits to our customers and the communities we serve.”

For those hoping to help the environment, perhaps a more important issue is what to do with bags when they wear out.

Among rules for disposal, bags fall into a gray area.

The rules are clear with things such as tube televisions and paint. They are considered hazardous waste, and residents must bring them to the government for special handling.

But there are no requirements for bags, said James Ransom, a spokesman for Hillsborough County's solid waste program.

But Ransom said the basic chemical content of these bags tested by the Tribune would require special handling under Hillsborough County rules, and he advises consumers who know about issues with their bags to handle them differently than general household trash.

Florida has come a long way from the days when local governments dug holes, dumped trash and set it on fire, said Richard Tedder, a program administrator for the state Department of Environmental Protection. He said he thinks the bags would be fine in landfills, especially the more modern dumps with liners to prevent groundwater contamination.

However, Rodrigues, Braiman and Dillon said there is a multiplying effect of millions of Americans buying reusable bags and tossing them out over time.

All this presents problems for shoppers.

Reusable bags don't list lead as an ingredient in the material. All the bags tested by the Tribune were made in China. A tag on the USF bag from Publix says to hand wash separately and line dry.

Shoppers could try using the home lead tests sold in stores, but those are primarily designed for testing paint on hard surfaces such as walls or toys.

The bags tested by the Tribune with the highest lead levels tended to have the most elaborate designs or illustrations that covered the entire surface.

By contrast, a nylon bag sold by Target with almost no illustrations had almost undetectable levels of lead. Also, the simplest bags from Sweetbay, Walmart and Publix contained little lead.

For shoppers, the best advice might be: If you're concerned about your bags, take them back to the store.

As a result of the Tampa Tribune article, U.S. Senator Charles Schumer (D-NY) asked for a federal investigation into the problem. [Exh. SC95.] In his press release he stated as follows: [Exh. SC95.]

U.S. Senator Charles E. Schumer today called on the Food and Drug Administration (FDA), the Environmental Protection Agency (EPA) and Consumer Product Safety Commission (CPSC) to investigate and ban reusable shopping bags that contain higher than acceptable levels of lead. Many of these popular bags are manufactured in China and sold to grocery stores, who then sell them to customers. Schumer, Vice Chairman of the Joint Economic Committee, noted that while there may be no immediate danger to human health, food products come into direct contact with these bags and long-term exposure can pose serious health and environmental risks. Schumer, who has a long record fighting to make products imported from China safe for consumers and children, is asking federal agencies to investigate and ban any reusable bags sold to grocery stores and retailers that are found to have high levels of lead in them.

The problem came to light this past September when Wegmans, a supermarket chain with stores in New York and four other states, pulled a number of their reusable shopping bags that were manufactured in China after a consumer group found that they contained higher than acceptable levels of lead that could affect public health. Since that time, several other reports have shown higher than acceptable levels of lead in reusable shopping bags sold at chain supermarkets in other states like Publix and Winn-Dixie, as well as drug stores across the country.

....

Several recent reports show that a significant number of reusable shopping bags contained over 100 parts per million (PPM) in heavy metals. In some cases, bags contained as many as 5 times the allowable limits. The paint on lead-filled bags has the ability to peel and flake off, coming into direct contact with exposed groceries, like fruits and vegetables. Exposure to high levels of lead can damage the nervous and immune systems and impair kidney function over time. When disposed of in landfills, these bags can leak toxins into the soil and water and have the potential to create even more environmental problems.

In September, Wegmans Food Markets Inc. announced that it would be replacing 725,000 reusable shopping bags in its stores in New York, Pennsylvania, New Jersey, Virginia and Maryland. The

announcement came on the heels of a report by the Empire State Consumer Project that found that the green bags contained lead at 799 parts per million – more than double the amount allowed in children’s products by the CPSC. Currently, the CPSC allows lead in children’s products at up to 300 parts per million; next year, the limit will drop to 100 parts per million.

California Assembly Member Kevin de Leon (D-Los Angeles), submitted a letter on November 15, 2010 requesting the Los Angeles County Board of Supervisors delay its vote on banning plastic bags because of the recent revelations about potentially toxic levels of lead in reusable bags. He questioned whether the bags could contaminate the food that consumers transport and whether the lead could be spread in landfills when the bags are discarded. De Leon even admitted that he is a “co-author and long-time advocate of legislative proposals to ban plastic bags from the stream of commerce.” [Exh. SC96.]

In January 2011, the Center for Consumer Freedom (“CCF”) released a report of testing done on reusable bags. [Exhs. SC97, SC98.] CCF stated as follows:

Today, the nonprofit Center for Consumer Freedom (CCF) released new lab results showing that a number of major retailers’ reusable shopping bags contained excessive levels of lead. Of the 44 organizations whose bags were tested, 16 are selling or distributing reusable bags containing lead in amounts greater than 100 ppm (parts per million), which is where many states set the limit for heavy metals in packaging.

National chains such as CVS, Safeway, Bloom, and Walgreens were among those with high levels of lead found in their re-usable bags. CVS and Safeway led the pack with 697 and 672 ppm respectively; both were nearly seven times the 100 ppm limit. To date, CVS is the only store that tested above 100 ppm to have recalled their bags. Previously lululemon athletica, Sears-Canada, and Wegmans have all recalled bags due to high levels of lead.

The CCF report highlights the need to create a specific definition of “toxic amounts” for the protection of the environment.

**9. STPB OBJECTS TO THE FAILURE TO PREPARE A CUMULATIVE IMPACTS ANALYSIS**

There is no cumulative analysis of other current or proposed or probable future plastic bag ban ordinances in the Initial Study. STPB objects to the failure to include a cumulative impact analysis.

CEQA Guidelines §15130(a) states that an EIR must discuss cumulative impacts of a project when the project’s incremental effects are cumulatively considerable, as defined in



§15065(a)(3). CEQA Guidelines §15065(3) states that an EIR must be prepared if “the project has possible environmental effects that are individually limited but cumulatively considerable.” CEQA Guidelines §15065(3) states that “cumulatively considerable” means that the “incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” CEQA Guidelines §15355 defines “cumulative impacts” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” CEQA Guidelines §15355(b) states that “[c]umulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”

In *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, the court stated:

At 114: Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. [Footnote] One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.

At 118: From *Kings County* and *Los Angeles Unified*, the guiding criterion on the subject of cumulative impact is whether *any* additional effect caused by the proposed project should be considered significant given the existing cumulative effect. (Emphasis added.)

At 119: However, under CEQA section 21083, under the Guidelines section 15355 definition of cumulative impacts, and under the *Kings County/Los Angeles Unified* approach, the need for an EIR turns on the impacts of *both* the project under review and the relevant past, present and future projects.

(Emphasis by court.)

In *San Franciscans for Reasonable Growth v. City and County of San Francisco*, (1984) 151 Cal.App.3d 61, 75, the court stated:

[W]e must reject the argument that, because some of the projects under review might never be built, it was reasonable for the Commission not to consider any of them in its cumulative analyses. Such argument is without merit. The fact that the EIR's subject project itself might be built, rather than the fact that it might not be built, creates the need for an EIR. Similarly, the fact

that other projects being reviewed are as close to being built as the subject project makes it reasonable to consider them in the cumulative analyses.

Based on the foregoing, the EIR must consider the impact of the proposed City of San Jose ordinance together with the following pending or proposed ordinances:

- The City of Berkeley proposed plastic bag ban and paper bag fee. [Exhs. SC70, SC71.]
- The City of Los Angeles resolution passed in 2008 to ban plastic bags in 2010 if no plastic bag fee bill is enacted by the Legislature by that time. [Exh. SC72.] (No such bill has been enacted.)
- The County of Los Angeles ordinance adopted in November 2010 banning plastic bags. [Exh. SC73.] Los Angeles County issued Findings of Fact and a Statement of Overriding Considerations based on its Final EIR. [Exh. SC31.] The Los Angeles County EIR can be downloaded at:  
<http://dpw.lacounty.gov/epd/aboutthebag/ordinance.cfm>.

As the LA County EIR it is a 49MB document, it is not provided as a physical exhibit as it is too large to send to Santa Cruz County as an attachment to an e-mail. Exh. SC56 is a placeholder exhibit representing the EIR. Exh. SC58 is a summary of the Los Angeles County EIR.

- The City of Malibu plastic bag ban ordinance adopted in 2008.
- The City of Manhattan Beach plastic bag ban ordinance adopted in 2008 (if it is not invalidated in the case of *Save The Plastic Bag Coalition v. City of Manhattan Beach* which is pending in the California Supreme Court).
- The City of Palo Alto plastic bag ban ordinance adopted in 2009.
- The City and County of San Francisco plastic bag ban ordinance adopted in 2007. [Exh. SC74.]
- The County of Santa Clara's proposed plastic bag ban.
- The City of San Jose plastic bag ban and paper bag fee. [Exh. SC57.]
- The City of Santa Monica plastic bag ban and paper bag fee. [Exh. SC82.]
- All other plastic bag ban ordinances and reduction projects that are being considered or may be or have been implemented in California and outside California.

It is the County's responsibility to prepare a cumulative analysis, not STPB's or the public's. In *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d, 296, the Court of Appeal stated as follows:

While a fair argument of environmental impact must be based on substantial evidence, mechanical application of this rule would defeat the purpose of CEQA where the local agency has failed to undertake an adequate initial study. The agency should not be allowed to hide behind its own failure to gather relevant data.... CEQA places the burden of environmental investigation on government rather than the public. If the local agency has failed to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record. Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences.

(*Id.* at 311.) When preparing an Initial Study, "an agency must use its best efforts to find out and disclose all that it reasonably can." Guidelines §15144.

At pages 68 to 69 of the Initial Study, the County states as follows:

In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. Although the potential exists for significant cumulative impacts from greenhouse gas emissions following project approval and implementation, proposed mitigation measures to track and report paper bag use at the retail level and increase public education and outreach would ensure that paper bag use is reduced below anticipated levels, resulting in an overall reduction of greenhouse gas emissions. As a result of this evaluation, there were determined to be no significant cumulative effects, and no substantial evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

(Emphasis added.) The County proposed mitigation measures, which consisted merely of tracking paper bags usage and public education and usage does not achieve as a matter of certainty the negation of the conceded "potential for incremental effects that are cumulatively considerable." Therefore, STPB objects on the ground that cumulative impacts have been admitted by the County without proposing method of mitigation that is certain to be successful.

#### **10. STPB OBJECTS TO A THRESHOLD OF SIGNIFICANCE THAT IS NOT BASED ON EVERY BAG CHOICE MADE BY EVERY CONSUMER**

By adopting the proposed ordinance, the County is telling each consumer that he or she is making a significant environmental decision with significant environmental impacts each time he or she selects a type of bag. Significance in the context of this project is determined by the

comparative environmental impacts of different bag choices: which is better for the environment—plastic, paper or reusable. In the context of this project, each consumer's bag choice has a significant environmental impact.

**11. STPB OBJECTS TO THE FAILURE TO ALLOW THE LEGALLY REQUIRED TIME FOR PUBLIC COMMENTS**

Pursuant to Pub. Res. Code §21091(c) Guidelines §15073(b), Guidelines §15105(b), and Guidelines §15206(b)(2), if a project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located, the public review period shall be *30 days* (which is the State Clearinghouse review period). This project has the potential for causing significant effects on the environment extending beyond the County would be located, namely air and water pollution, water eutrophication, greenhouse gas emissions, and other environmental impacts from the manufacture, transportation, distribution, and disposal of paper and reusable bags.

According to the Notice of Intent to Adopt a Negative Declaration (the "Notice"), the review period began on February 15, 2011 and ends on March 16, 2011 at 5:00 pm. That means that the comment period provided by the County is only 19 full days assuming the first day was February 15, 2011. March 16 is not a full day for computation purposes as it ends at 5:00 pm.

Therefore, based on Guidelines §15073(b), STPB objects to the Notice as the County has failed to afford the public at least 30 *full* days to review and comment on the Negative Declaration.

Based on the foregoing, STPB objects on behalf of the general public to the Notice as it is legally defective, invalid, and void. STPB has standing to object on behalf of the general public when a notice required by CEQA is defective or not given. (*Burrtec Waste Industries, Inc. v. City of Colton* (2002) 97 Cal.App.4th 1133, 1138-39.

**12. STPB OBJECTS TO THE MISLEADING NATURE OF THE NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION**

The Notice of Intent to Adopt a Mitigated Negative Declaration states that the paper bag fee would be 10 cents for one year and then 25 cents. In fact that is not correct. As discussed above, retailers can request a reduction of the fee based on cost. The fee on some paper bags may be as low as two cents.

Based on the foregoing, STPB objects on behalf of the general public to the Notice as it is legally defective, invalid, and void. STPB has standing to object on behalf of the general public when a notice required by CEQA is defective or not given. (*Burrtec Waste Industries, Inc. v. City of Colton* (2002) 97 Cal.App.4th 1133, 1138-39.

### OBJECTION BASED ON PREEMPTION

STPB further objects to the proposed ordinance on the ground that it is preempted by AB 2449 which was enacted in 2006. The Governor's signing statement on AB 2449 reads as follows: [Exh. SC1.]

I am signing Assembly Bill 2449 that implements a statewide plastic bag recycling program. While this bill may not go as far as some local environmental groups and cities may have hoped, this program will make progress to reduce plastics in our environment. This measure requires every retail establishment that provides its customers plastic bags to have an in store plastic bag recycling program, a public awareness program promoting bag recycling, post recycling requirements, record keeping and penalties. Because this is a statewide program the bill *precludes* locals from implementing more stringent local requirements. The bill sunsets in six years and this will allow locals time to develop additional programs or the legislature to consider a more far reaching solution." (Emphasis added.)

Pub. Res. Code §42250(e) defines a "store" that is subject to the requirement of installing a plastic bag recycling bin as "a retail establishment that provides plastic carryout bags to its customers as a result of the sale of a product." This is why the preemption issue is so important. If plastic bags are banned, the stores may or will remove the bins. Without those bins, there will be no way to recycle any plastic bags or film in Santa Clara County, including but not limited to newspaper bags and dry cleaning bags. This would have a significant negative environmental impact.

### NOTICE OF INTENT TO LITIGATE

STPB hereby notifies Santa Cruz County that STPB *will* file a petition for writ of mandate in the Santa Clara County Superior Court or other appropriate court to enforce CEQA in the public interest, based on the points and objections herein, if the proposed ordinance or a similar ordinance is adopted.

STPB further notifies Santa Cruz County that STPB *will* file a complaint in the Santa Cruz County Superior Court or other appropriate court to invalidate the proposed ordinance if it adopted, based on preemption.

### ADMINISTRATIVE RECORD

STPB is submitting herewith, by e-mail, copies of documents cited herein or which otherwise support the objections herein. STPB requests that all such documents be made part of the administrative record.

STPB requests that the documents submitted by STPB be numbered and indexed in the administrative record in accordance with STPB's numbering system: SC1, SC2, etc.

REQUEST FOR NOTICES

I request that you send me by e-mail and regular mail any future public notices regarding the proposed ordinance and any public hearings, including but not limited to any and all CEQA documents.

CONTACT PERSON

I am the designated contact person for the Save The Plastic Bag Coalition.

CONCLUSION

STPB has made a fair argument, based on substantial evidence, that the proposed ordinance may result in significant negative environmental impacts based on an increase in the number of paper bags and reusable bags. Therefore, pursuant to CEQA, an EIR must be prepared and certified before the proposed ordinance is adopted.

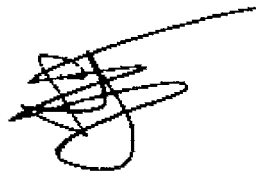
In the event that no EIR is prepared and certified prior to adoption of the proposed ordinance, STPB objects and will file a petition for writ of mandate to invalidate the ordinance. STPB will also request a preliminary injunction and other relief in the Superior Court.

All rights are reserved, including but not limited to the right to challenge the validity of a plastic bag ban based on the preemptive effect of Pub. Res. Code §42250-57.

The fact that particular parts of the Initial Study are not mentioned or objected to herein does not mean that STPB accepts their accuracy or validity.

No rights or duties are waived by any statement or omission herein. Strict compliance with all the applicable provisions of CEQA is hereby demanded.

Dated: March 16, 2011



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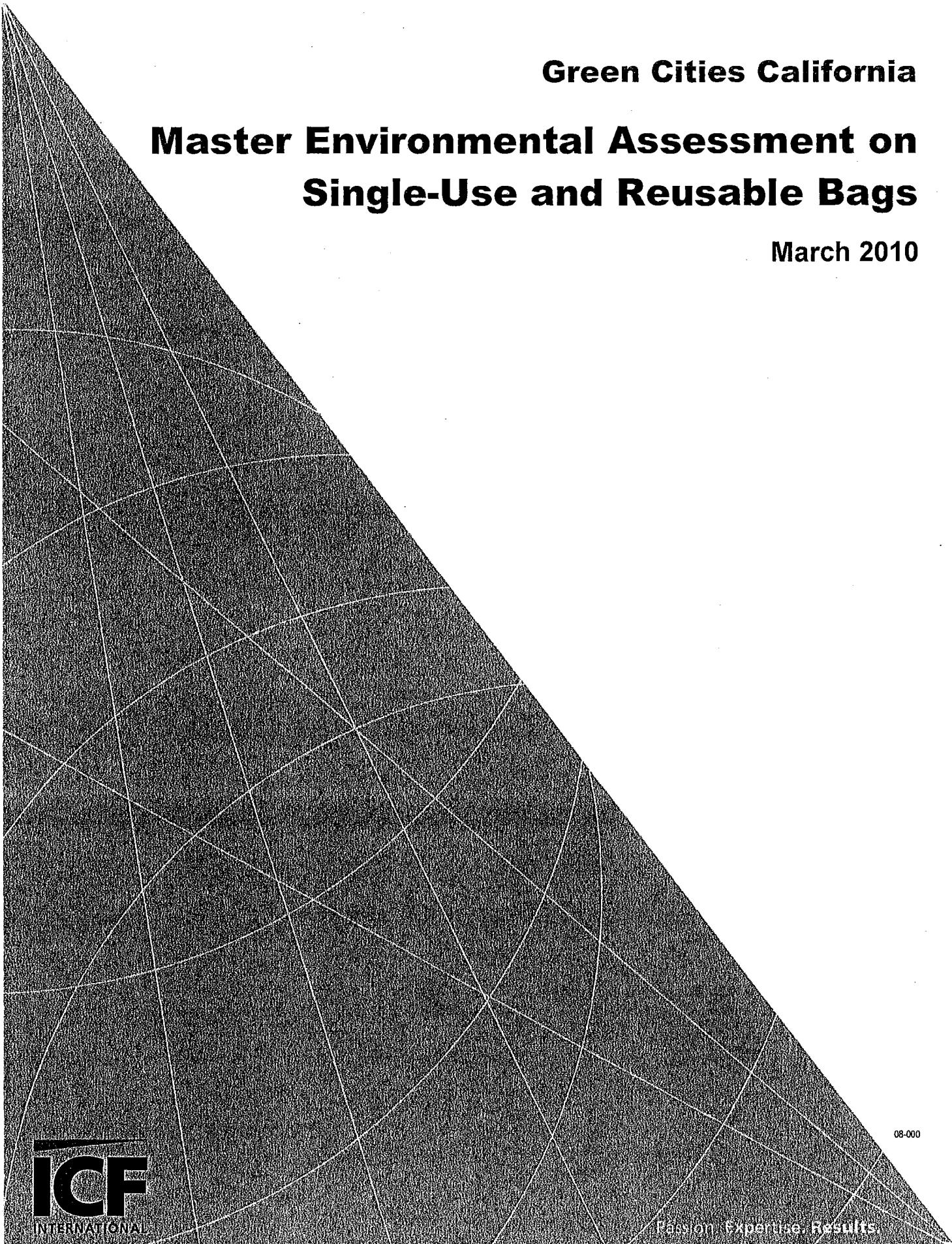
STEPHEN L. JOSEPH  
Counsel, Save The Plastic Bag Coalition



**Green Cities California**

**Master Environmental Assessment on  
Single-Use and Reusable Bags**

March 2010



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Passion. Expertise. Results.



page



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**Master Environmental Assessment**  
**on Single-Use and Reusable Bags**

**March 2010**

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City of Manhattan Beach	Surfrider Foundation, San Diego
City of Palo Alto	Chapter
City of Pasadena	

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Heal the Bay  
Save The Bay  
Seventh Generation Advisors  
StopWaste.org

**Thank you to the authors:** And finally, we are grateful to the team at ICF International for their careful review of the existing literature on single use and reusable bags, and for the development of an accessible and informative MEA. We hope it will serve as assistance to those forward thinking jurisdictions seeking to foster more sustainable communities by encouraging the use of reusable bags.

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**Master Environmental Assessment on Single-Use and Reusable Bags  
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**Table of Acronyms and Definitions**

## Table of Acronyms and Definitions

AB 2449	Assembly Bill 2449
ASTM	American Society for Testing and Materials
Biodegradable plastic	ASTM definition: A degradable plastic for which the degradation results from the action of naturally-occurring microorganisms such as fungi, bacteria, and algae.
Bioerodable plastic	ASTM definition: A degradable plastic for which the degradation results from oxidation and erosion of the plastic until only small plastic particles remain.
CEQA	California Environmental Quality Act
Compostable plastic	ASTM definition: A plastic that undergoes biological degradation during composting to yield carbon dioxide, water, inorganic compounds and biomass at a rate consistent with other known compostable materials and leaves no visually distinguishable or toxic residues. A subset of biodegradable plastics, these plastics are typically made of corn, potato, or wheat starches.
CWA	Clean Water Act (federal)
Degradable plastic	ASTM definition: A plastic designed to undergo a significant change in its chemical structure under specific environmental conditions, resulting in a loss of some properties that may be measured by standard test methods appropriate to the plastic and the application in a period of time that determines its classification.
EIR	Environmental Impact Report
Grocery shopping bag	Bag used for grocery shopping at checkout
HDPE	High density polyethylene – typical material used in single-use plastic grocery bags
ISO	International Standards Organization
LCA	Life-Cycle Assessment/Analysis
LDPE	Low density polyethylene – typical material used in reusable plastic grocery bags
MEA	Master Environmental Assessment
NPDES	National Pollutant Discharge Elimination System
Oxodegradable plastic	ASTM definition: A degradable plastic for which the degradation results from oxidation.
Photodegradable plastic	ASTM definition: A degradable plastic for which the degradation results from the action of natural daylight.
POTW	Publicly Owned [Wastewater] Treatment Works

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Retail shopping bag	Bag used for retail, rather than grocery, shopping; these bags typically have a larger capacity than single-use grocery bags
Reusable grocery bag	Grocery bag designed to be reused many times
RWQCB	Regional Water Quality Control Board
Single-use grocery bag	Bag designed for one use at a grocery store checkout counter; these bags may be reused at home as trash receptacles or for other uses, but are not considered reusable bags in this analysis because they are seldom re-used for groceries.
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TMRP	Trash Monitoring and Reporting Plan
US EPA	United States Environmental Protection Agency

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## **Executive Summary**

The California Environmental Quality Act (CEQA) authorizes the use of Master Environmental Assessments (MEAs) "in order to provide information which may be used or referenced in EIRs or negative declarations" (CEQA Guidelines Section 15169). An MEA is not an Environmental Impact Report (EIR) or other CEQA analysis because it does not reach conclusions regarding local significance and does not propose either mitigation measures or alternatives.

This is a Master Environmental Assessment (MEA) on the subject of single-use, or disposable, grocery shopping bags (i.e., bags used at checkout in grocery stores). As such, it brings together a comprehensive collection of information about single-use grocery bags including existing regulations, life-cycle analysis, potential impacts on the environment, reusable bags, and the use of fees to encourage consumers to reuse bags. The information found herein will help cities and counties to determine the significance of actions that they may take to cut back on the use of single-use grocery bags.

This grocery bag MEA provides local governments a one-stop reference about the impacts of restricting the use of single-use grocery bags, or of imposing a fee or other restriction on single-use disposable grocery bags (see the discussion of AB 2449 and its restriction on fees). It can be used by local governments in the preparation of EIRs to assess the potential impacts of such ordinances. Using this MEA can help reduce the cost and time of preparation of agencies' EIRs by reducing the need for independent research.

Appendix A. *References* contains the list of references cited in the MEA. Appendix B. *CEQA Guidelines MEA Provisions* contains the text of CEQA Guidelines Section 15169. Appendix C. *Detailed Description of Referenced Life-Cycle Analyses* consists of an annotated bibliography of the life-cycle assessments reviewed in this MEA.

## **Overview of Findings**

- **Single-Use Plastic Bags:** Nearly 20 billion single-use high density polyethylene (HDPE) plastic grocery bags are used annually in California, and most end up in landfills or as litter. In fact, of the four types of bags considered, plastic bags had the greatest impact on litter.
- **Single-Use Paper Bags:** Kraft paper bags are recycled at a significantly higher rate than single-use plastic bags. Still, over its lifetime, a single-use paper bag has significantly larger greenhouse gas (GHG) emissions and results in greater atmospheric acidification, water consumption, and ozone production than plastic bags.
- **Single-Use Biodegradable Bags:** Although biodegradable bags are thought to be an eco-friendly alternative to HDPE plastic bags, they have greater environmental impacts at manufacture, resulting in more GHG emissions and water consumption than conventional plastic bags. In addition, biodegradable bags may degrade only under composting conditions. Therefore, when littered, they will have a similar impact on aesthetics and marine life as HDPE plastic bags.



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- **Reusable Bags:** Reusable bags can be made from plastic or cloth and are designed to be used up to hundreds of times. Assuming the bags are reused at least a few times, reusable bags have significantly lower environmental impacts, on a per use basis, than single-use bags. Some of the reviewed LCAs indicate that use of the non-woven plastic reusable bag results in particularly large environmental benefits.
- **Effects of Policy Options on Single-Use Bags:** In other regions of the world, fees and bans on bags have resulted in dramatic drops in consumption. For instance, the Irish plastic bag tax immediately resulted in a greater than 90% reduction in use. Due to California law AB2449, no fee program on plastic bags can be introduced. However, bans on single-use plastic bags, as well as fees on other single-use bags, may be implemented to minimize use.

### **Comparative Impacts of Grocery Bag Types**

Table 1 presents a general overview of the comparative impacts of single-use plastic, single-use paper, single-use biodegradable, and reusable bags, based on a review of previous life-cycle assessments.

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Table 1: Comparative Impacts of Grocery Bag Types

Environmental Issue <sup>(1)</sup>	Type of Bag			
	Single-use Plastic	Single-use Paper	Single-use Biodegradable	Reusable (any type)
Aesthetics (Primarily litter)	3	2	3	1
Agricultural Resources	Ins.	Ins.	Ins.	Ins.
Air Quality	2	3	3	1
- GHG Emissions	2	3	3	1
- Atmospheric Acidification and Criteria Pollutants	2	3	Ins.	1
- Ground-level Ozone	2	3	Ins.	1
Biological Resources (Primarily marine impacts)	3	2	3	1
Cultural Resources	Ins.	Ins.	Ins.	Ins.
Geology and Soils	Ins.	Ins.	Ins.	Ins.
Hazardous Materials	Sim.	Sim.	Sim.	Sim.
Hydrology and Water Quality	3	3 <sup>(2)</sup>	3	1
- Hydrology	3	2	2	1
- Water Consumption	2	3	3	1
- Water Quality	3	3	3	1
Land Use and Planning	Ins.	Ins.	Ins.	Ins.
Mineral Resources	2 <sup>(3)</sup>	3	3	1
Noise	Ins.	Ins.	Ins.	Ins.
Population and Housing	Ins.	Ins.	Ins.	Ins.
Public Services	3	2	3	1
Recreation	3 <sup>(4)</sup>	2	3 <sup>(4)</sup>	1
Transportation/ Traffic	Ins.	Ins.	Ins.	Ins.
Utility, Energy, and Service Systems	Ins.	Ins.	Ins.	Ins.
Solid Waste and Waste Reduction	3 <sup>(5)</sup>	3 <sup>(6)</sup>	3 <sup>(7)</sup>	1

**Table Notes:**

General: Relative effects are on a general scale of 1 to 3, with 1 representing lowest relative impact. "Ins." denotes insufficient information to make a judgment. "Sim." denotes similar levels of indirect impacts.

<sup>(1)</sup> Issues based on the CEQA Guidelines, Appendix G, with the addition of solid waste and waste reduction.

<sup>(2)</sup> Paper bags are less likely to contribute to trash/litter in surface waters, but require substantially more water for manufacturing than plastic bags.

<sup>(3)</sup> Plastic bags require less fossil fuel in their manufacture than other bags.

<sup>(4)</sup> Single-use plastic and biodegradable bags as litter can have a detrimental effect on the quality of recreational experience. Anecdotally, single-use paper bags are less common in litter.

<sup>(5)</sup> Single-use plastic bags occupy less space than other bags in landfills, but have a low rate of recycling.

<sup>(6)</sup> Single-use paper bags are commonly made of recycled material and have a much higher rate of recycling than single-use plastic bags.

<sup>(7)</sup> Single-use biodegradable bags can contaminate the plastic bag waste stream, complicating recycling efforts. They do not decompose readily in open environments; there are concerns that they are disposed of as litter rather than put into the trash bin.

# 1. Introduction

## 1.1. Objectives and Target Audience

This Master Environmental Assessment (MEA) provides local governmental agencies in California with a one-stop reference about the impacts of adopting ordinances that restrict the use of single-use grocery bags, or of imposing a fee or other restriction on all single-use grocery bags. As discussed below, MEAs are authorized under the California Environmental Quality Act (CEQA) as a means of organizing information. This MEA can be used by local governments in the preparation of environmental analyses to assess the potential impacts of such ordinances. The MEA is intended to reduce the cost and time of preparation of agencies' CEQA documents by reducing the need for independent research. Other specific objectives of the MEA are:

- Educate agencies on environmental impacts of bags/fees/bans so that they can determine whether a more detailed analysis is warranted;
- Provide background material that agencies can use directly in an EIR (e.g., background information on life-cycle assessments (LCA), general information about the life cycle of bags, general impacts of bags, overall findings from relevant studies);
- Indicate which studies analyzed which impacts, so that agencies can access detailed information from the most relevant studies if necessary;
- Provide detailed information from the studies that are the most applicable to California;
- Provide quantitative results from previous studies that agencies can use to estimate impacts of local fees and bans.

A comprehensive literature search for information on single-use grocery bags and their potential environmental impacts forms the foundation of this MEA. The search included both popular and peer-reviewed articles from a large number of sources. The MEA provides an objective synthesis of the information.

## 1.2. Types of Bags Reviewed

This report covers single-use and reusable bags intended for grocery shopping. Other types of bags, particularly heavier plastic bags used for retail shopping and lightweight plastic produce bags, are not included in this analysis. The information about grocery bags is not comparable to retail shopping bags due to their different material components and weight per bag. Some single-use plastic, paper, and biodegradable bags may be used more than once, as household trash bags or other transport bags. However, because they are designed for single-use and are typically not brought back to a grocery store for reuse, they are considered single-use in this analysis and in the life-cycle assessments (LCAs) reviewed.

### ***1.2.1. Single-use Plastic Bags***

Single-use plastic bags include high density polyethylene (HDPE) bags that are commonly distributed at supermarkets. These lightweight, waterproof bags provide a convenient, hygienic carrying sack for grocery shoppers. They can be recycled at some facilities, although recycling rates are very low, and contamination in general recycling streams can cause recycling machine malfunction. The LCA conducted by Boustead Associates (2007) assumes a 5.2% rate of recycling for plastic bags, based on 2005 EPA data.<sup>1</sup> Concerns over the environmental impacts and negative aesthetic impact of littered bags and their effect on wildlife have led a number of communities to propose fees and bans on HDPE bags.

### ***1.2.2. Single-use Paper Bags***

Single-use paper bags, like their plastic counterparts, are intended for grocery shopping and then disposal. These bags have a larger carrying capacity than the HDPE plastic bags, and may also be recycled at end of life. They are recycled at greater rates than HDPE bags and may be made of recycled paper content. In fact, the LCA performed by Boustead Associates (2007) assumes that kraft paper bags contain 30% post-consumer recycled content and water-based inks, based on communication with Weyerhaeuser, the primary US paper bag manufacturer.<sup>2</sup> Boustead (2007) further assumes that paper bags are recycled at a rate of 21%, in accordance with EPA data from 2005.<sup>3</sup>

### ***1.2.3. Single-use Biodegradable Bags***

Single-use biodegradable bags are designed to degrade as a result of the action of naturally occurring microorganisms, such as fungi, algae, and bacteria.<sup>4</sup> These bags are typically made from synthetic or biologically produced polyesters such as polyhydroxyalkanoate (PHA) or polylactic acid (PLA), sugarcane, or vegetable starches such as corn or potatoes. Because biodegradable bags are not thought to pose the same environmental concerns at disposal, they are considered an alternative to HDPE plastic bags.<sup>5</sup> They are about the same size as HDPE bags, but degrade when placed in the proper environment (i.e., a composting facility). However, biodegradable bags may degrade slowly and while PHA-based bags will degrade in oceans and open lands, PLA-based bags will not degrade significantly in non-composting environments.<sup>6</sup> In addition, biodegradable bags cannot be recycled with HDPE bags because they contaminate the HDPE plastic.

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<sup>1</sup> Boustead (2007).

<sup>2</sup> Boustead (2007).

<sup>3</sup> Boustead (2007).

<sup>4</sup> ASTM definition of biodegradable plastics.

<sup>5</sup> This MEA does not address "bioerodable", "photodegradable" or "oxodegradable" bags. Like biodegradable bags, these other bags will break down at end-of-life. However, they are made from synthetic oil-based plastics. Using light and heat, bioerodable bags break down by oxidation and erosion of the plastic until only small plastic particles remain. The degradation process can be halted in an anaerobic environment. Similarly, photodegradable and oxodegradable bags degrade as a result of natural daylight and oxidation, respectively. The small particles that remain after degradation may pose a risk to wildlife that inadvertently ingest them.

<sup>6</sup> CIWMB (2009b).

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**Introduction**


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**1.2.4. Reusable Bags**

Reusable bags, or "bags for life," are made of various materials including polyethylene (PE) plastic, polypropylene (PP) plastics, multiple types of cloth (cotton canvas, nylon, etc.), and recycled plastic beverage containers (polyethylene terephthalate, or PET), among others. The state of California defines these bags as "a bag with handles that is specifically designed and manufactured for multiple reuse and is either made of cloth or other machine washable fabric, and/or thick, durable plastic (at least 2.25 mils thick)."<sup>7</sup> Due to their larger size and weight, they require more material consumption in manufacture on a bag-to-bag comparison than disposable bags. However, these bags are intended for reuse up to hundreds of times and are commonly made of recycled content. It is commonly believed that the frequent reuse outweighs greater per bag energy and material use.

**1.3. General Scope of Research**

The MEA includes existing research related to the environmental impacts of different types of grocery shopping bags, including single-use bags (paper and plastic) as well as reusable bags. To the extent that reliable information regarding different types of plastic, paper, and reusable materials is available in the literature, they are included in the MEA. Areas of impact that are discussed include aesthetics, energy, air emissions, water quality, and waste. All stages in the lifecycle of bags are addressed, including upstream, land use, manufacturing, distribution, use, and end-of-life effects, to the extent that this information is available in the literature. The MEA also examines the pertinent studies that evaluated the impacts of fees and bans on the consumption of grocery shopping bags.

**1.4. MEA in the Context of CEQA**

Pursuant to CEQA Guidelines Section 15169, an MEA is an organized collection of information, such as an inventory or data base, to be used in the preparation of Environmental Impact Reports (EIRs) and other CEQA analyses. The full text of CEQA Guidelines Section 15169 is presented in Appendix B. CEQA Guidelines MEA Provisions, of this MEA.

An MEA is not an EIR. An EIR is an analysis of a project's potential for significant environmental impacts that is used to inform the planning and decision making process. The purpose of an EIR is to identify:

- Potentially significant impacts of the proposed project on the environment;
- Significant impacts that are considered unavoidable because they cannot be mitigated below a level of significance;
- Feasible mitigation measures that will reduce or avoid those significant impacts; and
- A range of reasonable and feasible alternatives to the project that would substantially reduce one or more of the project's significant environmental impacts, while meeting most or all of the project's objectives.

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<sup>7</sup> City of Palo Alto Website. Bring Your Own Bag News Detail. Available at: <http://www.cityofpaloalto.org/>

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In contrast, an MEA is a collection of information that may be used in the preparation of an EIR or other CEQA document. Unlike an EIR, an MEA does not:

- Analyze a specific project;
- Identify thresholds of project significance and the significant effects of a project;
- Analyze and compare the potential impacts of a range of project alternatives;
- Adopt mitigation measures to avoid or reduce the significant impacts of a project.

CEQA describes the process for the preparation and public review of EIRs. None of that process applies to MEAs. For example, there is no specified public review period for an MEA; an MEA need not be certified or adopted by the public agency in order for the agency to rely on its information; and an MEA, by itself, will not be the basis for approving any project.

## 2. Methodology

The preparers conducted a comprehensive literature review of readily-available studies from the United States and abroad. Topics included the environmental impacts of single-use and reusable bags, comparative analyses of imposing fees or bans on single-use bags, as well as mitigation strategies that might be included as part of life-cycle studies. ICF International, the primary researcher, is affiliated with the Harmer E. Davis Library at UC Berkeley, which provides access to most electronic peer-reviewed journals worldwide. Additionally, relevant studies were also provided by Green Cities California (GCC), the Ocean Protection Council, the Clean Seas Coalition, and other stakeholders. The methodology used to select and summarize the findings presented in this MEA is outlined below:

1. Determination of research areas and data sources;
2. Review and synthesis of available studies;
3. Analysis of gaps.

A draft MEA was prepared for review and comment from internal staff, the Ocean Protection Council Science Advisory Team, and other key stakeholders. The final version of the MEA incorporates many of these comments.

### 2.1. Research Areas and Data Sources

ICF International compiled studies based on a literature search using the UC Berkeley online journal resources as well as reports provided by the Ocean Protection Council and other stakeholders. The review prioritized recent, California or Western US-based, peer-reviewed or widely cited studies. Studies were organized into four categories, with some overlap:

- **Life-cycle assessments (LCA)**: LCA studies typically evaluate the environmental effects of bags, including all life-cycle phases from the extraction of raw materials to end-of-life. Many widely-cited LCAs, peer-reviewed papers, and reviews of previous LCAs were identified, analyzed, and summarized;
- **Other impacts and scientific/technical assessments**: because a comprehensive review of the countless studies that assess the various environmental impacts and technical characteristics of plastics would require significant time and have limited relevance for this MEA, the review focused primarily on those studies that directly address grocery bags or have particular relevance to post-disposal plastic bags;
- **Fees and bans assessments and policy reviews**: many cities, counties, states, and countries have implemented or are considering implementing taxes, levies, bans, or educational efforts to minimize use of single-use grocery bags. To better understand the impacts of various regulatory methods, reports and proposed legislation to ban plastic bags in California cities and other regions were also reviewed;

- **Other studies with helpful reference lists:** a few additional reports were reviewed because of their exceptional lists of references. Although these reports themselves were not used in the MEA, their references were reviewed and considered for inclusion in the MEA.

## 2.2. Review and Synthesis of Available Studies

After a thorough literature review, ICF International developed a condensed list of particularly relevant studies using the following criteria:

- **Credibility of publication:** while some publications are peer-reviewed, other studies are published internally without external peer review. Because the objective of an MEA is to include non-biased studies, the researchers divided the studies in the following categories in rough order of bias: non-peer reviewed studies from industry (interested in the study), non-peer reviewed studies from non-profit/governmental agencies, peer-reviewed studies from industry, peer reviewed studies from non-profit/governmental agencies, and peer-reviewed studies with a scientific focus conducted by academics. The underlying concern is the use of reliable and representative data, since the organization responsible for the study (or peer reviewers) should perform some kind of data quality assessment;
- **Soundness and robustness of methodology:** independently of the organization conducting the study or the data sources, it is important to prioritize those studies that rely on established, robust, and transparent methodologies. For example, life-cycle studies that follow the guidelines established by the International Standards Organization standard 14000 on environmental management systems (ISO 14000) are probably more trustworthy than those that do not, all else being equal;
- **Appropriate documentation:** while an MEA could simply summarize the conclusions from different studies individually, GCC believes the results from studies should be compiled and summarized for readability. As a result, the appropriate documentation of data sources, methods, input parameters, system boundaries, and assumptions is important to ensure that the results from different studies are comparable. For example, the results from two studies should only be compared if the same processes are included in both of them;
- **Use of appropriate functional unit:** because results from a study are reported in terms of a functional unit, it is important that studies consider a functional unit that enables the comparison with other studies. Typical functional units in the considered studies are one bag (sometimes two bags in the case of double-bagging) or a household consumption of grocery bags over a given amount of time;
- **Geographic representativeness:** because the objective of the MEA is to assist local governmental agencies in California in the development of EIRs, the focus is on those studies that provide results and insights that are applicable to California. To the extent possible, the researchers prioritized studies that address bags with similar materials, manufacturing processes, and end-of-life fates as those in California;



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- **Age of study:** because the material composition, manufacturing processes, and end-of-life processes associated with different types of bags can evolve rapidly or even become obsolete, more recent studies were prioritized over older studies.

To the extent possible, results, conclusions, and insights regarding the environmental effects of different types of bags were summarized across studies to improve readability. If different studies had conflicting results, the researchers attempted to include as much information as possible to identify the reasons for such discrepancy. In the event that a particular study provided very relevant results applicable to California, those results were presented individually. The results of individual studies are also presented in Appendix C. *Detailed Description of Referenced Life-Cycle Analyses*, of this MEA.

### 2.3. Gap Analysis

Following the selection of studies, ICF International identified areas that are not properly addressed by the current literature. Although the MEA is not intended to provide original research, it is important to identify such gaps where future research may be needed. The main gaps in the current literature are:

- Detailed, quantitative analysis of litter impacts: It is difficult to fully quantify the impact of conventional plastic, biodegradable plastic, and paper single-use bags on litter. Because litter is the main category in which plastic bags are significantly worse than paper bags (plastic bags do not break down and can be injurious to wildlife), it is important to establish the relative significance of this visual and indirect wildlife impact area compared to other environmental impact areas.
- Detailed California-specific comparison of various types of reusable bags to better understand which of these bags are the most sustainable.
- Detailed analysis of environmental impacts, using California-specific plastic and paper bag recycling rates, paper bag recycled content, landfill methane recovery rates, and transport distances for manufacture, distribution, and disposal.
- Detailed area-specific analysis of land use and planning impacts of switching from conventional HDPE plastic bags that are made from fossil fuels, to bags made from plant-based resources.
- Comparison of the effectiveness of fees and other regulations in affecting the consumption of single-use grocery bags in California and the United States. Along this line, there is no study of whether California's AB 2449 (discussed in Section 3.3.1 below) has either reduced plastic bag use or resulted in an increase in the recycling rate.

## 3. Environmental Assessment

### 3.1. Summary

This section presents information garnered from multiple reports. The information presented here is based on reviewed life-cycle analyses (LCAs) of single-use and reusable grocery

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bags. Each analysis compares the bags using a different functional unit and varying assumptions regarding material transport distances, end-of-life disposal practices, etc. Consequently, direct comparison of various studies is problematic and potentially misleading. Similarly, it is not always possible to equate the results of a previous study with predictable impacts in a California setting.

The number of times a bag is used and the volume of groceries carried in an average bag directly impact the per use environmental impacts of the bag. Some of the LCAs reviewed in this report assume that single-use bags are not reused at all. Although these bags are not generally brought back to a grocery store for reuse, both high density polyethylene (HDPE) plastic bags and paper bags are frequently used as domestic waste bin liners, and HDPE plastic bags are commonly used to pick up pet waste. In addition, the energy sources used in studies of bag use in regions outside California may be significantly different from the energy mix within the state. More detailed information about specific report assumptions can be found in Appendix C. *Detailed Description of Referenced Life-Cycle Analyses*, of this MEA.

Four general types of bags are reviewed in the literature, and are the subject of this MEA:

- single-use HDPE plastic bags,
- single-use kraft paper bags,
- biodegradable single-use plastic bags, and
- reusable bags.

Many LCAs factor in the unequal carrying capacity and frequency of reuse for each type of bag when determining overall environmental impacts. For instance, in one year, a typical consumer/household who requires as many as 500-600 single-use plastic bags may consume approximately 150-450 paper bags, 500-600 biodegradable plastic bags, or 1-3 reusable bags in place of the plastic bags.<sup>8</sup>

End-of-life disposal significantly impacts lifecycle emissions and environmental impacts. Some studies assume no recycling of single-use bags, whereas others assume precise percentages of bags sent for recycling, landfill, and combustion for energy recovery. For instance, the Boustead Associates (2007) study is United States-based and, based on EPA data from 2005, assumes that 21% of paper bags are recycled, 14% sent for combustion, and 65% sent to landfills. Similarly it is assumed that 5% of plastic bags are recycled, 14% are sent for combustion, and 81% are landfilled.<sup>9</sup> These end-of-life assumptions more closely reflect the real world than the assumptions of no recycling for either paper or plastic. As noted in the Hyder Consulting study (2007), the end-of-life destination for these bags "is

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<sup>8</sup> County of Los Angeles (2007); ExcelPlas Australia (2004) and Environment Australia (2002) assume similar relative quantities of bags. AEA Technology (2009) estimates that 1 paper bag has the same capacity as 8 plastic bags. However, other reports including Franklin Associates (1990) and the County of Los Angeles (2007) suggest the ratio is closer to 1:1.5 or 1:2. The number of reusable bags consumed per year reflects the longer than 1 year lifetime of these bags (i.e., 1.5 reusable bags consumed per year could represent the use of 6 reusable bags, each with an average lifetime of 4 years). In addition to carrying capacity, grocery bagging habits at checkout largely determine the number of bags used by consumers annually.

<sup>9</sup> Boustead Associates (2007).

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crucial, with greater environmental savings achieved from recycling all bags at the end of their useful life.”<sup>10</sup> Conclusions regarding precise emissions and environmental impacts associated with single-use bags in California would require a study with end-of-life assumptions specific to California. Such study has not been produced to date.

The review of LCAs in this chapter suggests that a switch to reusable bags will result in significant environmental benefits. Paper bags, though less impacting to the environment in litter, aesthetics, and biological areas, are not a clear alternative to HDPE plastic bags, because air emissions, waste production, and water pollution associated with their life cycles are equal to or greater than those for plastic bags. For example, the 2002 Environment Australia report suggests that a shift from plastic to paper single-use bags may result in potential gains in litter reduction that could be offset by higher resource consumption. They found that even if biodegradable bags help with the litter situation, which is debatable, they would not significantly lower resource use, and cannot be recycled with single-use plastic bags (they contaminate the plastic). A shift from single-use disposable plastic bags to reusable bags would provide the best environmental gains over the full life cycle of the bags.<sup>11</sup> These findings are consistent with conclusions from the other LCAs.

More recently, Herrera et al (2008) conducted a review of previous LCAs and also concluded that in almost all cases a switch to reusable bags would result in the most environmental benefits. Most of the reviewed studies also showed that paper bags had a greater impact on the environment than single-use plastic bags, due to a larger resource requirement for production and transport.

Although reusable bags present the best environmental impact throughout their life cycle, the plastic bag industry has contended that they may pose potential health hazards. They assert that because single-use bags are usually disposed of after their first use, they do not accumulate bacteria and other pathogens. A concern with reusable bags, then, is that their reuse could create unhygienic environments and promote food-borne illnesses, unless they are laundered regularly. This may be a minor concern, because reusable bags do not require special washing care and would likely be washed on a regular basis along with a household's regular laundry load.

### 3.2. Life-Cycle Assessment

Many of the studies analyzed in this MEA were based on a life-cycle assessment (LCA) methodology. A conventional process-based LCA was introduced by the Society of Environmental Toxicology and Chemistry in 1991 (SETAC 1991), which defines an LCA as:

“The life-cycle assessment is an objective process to evaluate the environmental burdens associated with a product, process, or activity by identifying and quantifying energy and material usage and environmental releases, to assess the impact of those energy and material uses and releases on the environment, and to evaluate and implement opportunities to effect environmental improvements. The assessment includes the entire life cycle of the product, process or activity, encompassing extracting and processing raw materials;

<sup>10</sup> Hyder Consulting (2007).

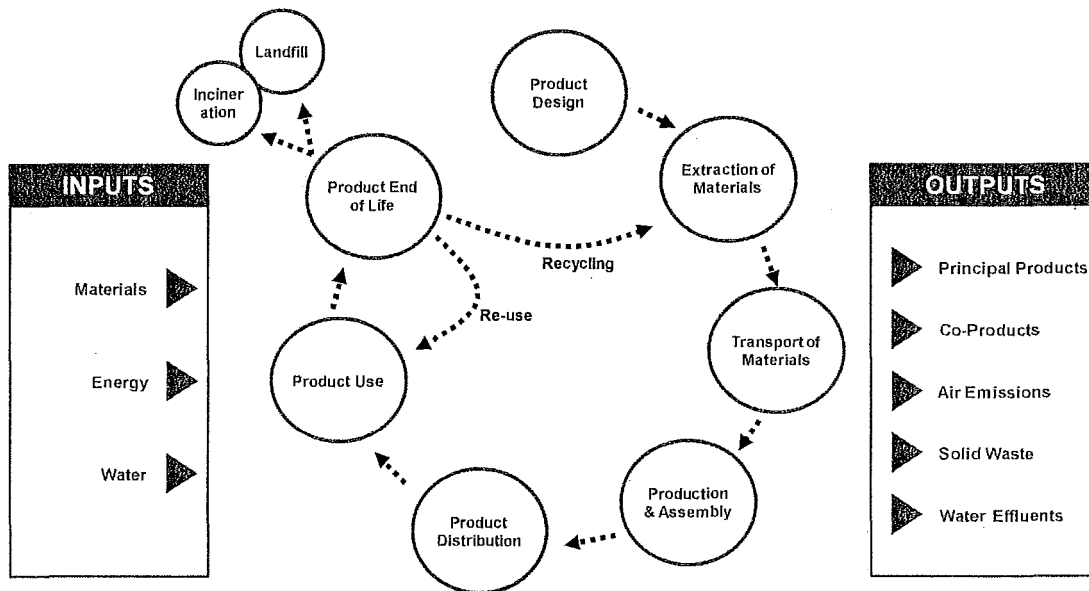
<sup>11</sup> Environment Australia (2002).

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manufacturing, transportation, and distribution; use/reuse/maintenance; recycling; and final disposal.”

LCA is also endorsed by the ISO 14001 series as the preferred methodology for the assessment of environmental impacts of products and processes (ISO 2007). All life-cycle phases of a product need to be identified, including product design, extraction of raw materials, all production stages, assembly, distribution, use, and finally its disposal, reuse, or recycling (Figure 1).

Figure 1. LCA Framework



Source: Adapted from SETAC (1991)

The definition of specific processes included in each life-cycle phase is also required. This is usually referred to as the definition of system boundaries, which also considers geographic and temporal boundaries. After the system boundaries are defined, inputs (e.g., energy, water) and outputs (e.g., air emissions, noise, water discharge, accidents) are associated with each process. By selecting a common functional unit (e.g., one single-use paper bag), it is possible to quantify the environmental effects of all life-cycle phases of a product.

Although this model enables very specific analyses, its heavy data requirements make it time consuming and costly, especially when attempts are made to include suppliers upstream in the supply chain. Due to great variability in setting system boundaries, the comparison of two LCAs of the same product is not always straight-forward. Other challenges in comparing two LCAs involve the actual definition of a product, the use of different functional units and input parameters, and the application of different LCA methodologies. When comparing bags produced and disposed in different countries, material selection, manufacturing technologies, energy mixes, and end-of-life fates can be widely different and are not always comparable.

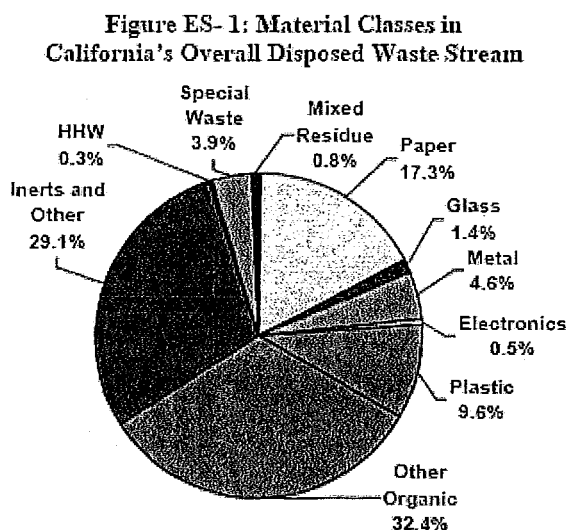
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The following sections compare life-cycle impacts of various types of single-use and reusable bags, based on previous LCAs. Some of these studies were useful to the extent that they reviewed previous studies. Others provided additional information, analyses, and conclusions. Appendix C. *Detailed Description of Referenced Life-Cycle Analyses* provides a summary of the main findings, functional units, and limitations of these studies. Section 3.4 summarizes the results of the individual studies by impact area. Due to the varying functional units and geographic locations of these studies, a direct comparison of results is not always possible.

### 3.2.1. Single-use Plastic Bags

Single-use disposable plastic grocery bags are typically made of thin, lightweight high density polyethylene (HDPE) 2.<sup>12</sup> For consumers, they offer a hygienic, odorless, and sturdy carrying sack. Currently, almost 20 billion of these plastic grocery bags are consumed annually in California.<sup>13</sup> According to a study conducted by Cascadia Consulting Group for the California Integrated Waste Management Board (CIWMB 2009), plastic of all types makes up almost 10% of California's disposed waste stream, as shown in Figure 2.<sup>14</sup>

**Figure 2: Make-up of California disposed waste stream, according to the California 2008 Waste Characterization Study (CIWMB 2009)**



Plastic grocery and other merchandise bags – defined in the CIWMB 2009 study as “plastic shopping bags used to contain merchandise to transport from the place of purchase, given out by the store with the purchase” – are only a small part of the total plastic in the waste stream. Plastic bags account for 0.3% of the total waste stream, or approximately 123,400

<sup>12</sup> Hyder Consulting (2007).

<sup>13</sup> CIWMB (2007b).

<sup>14</sup> CIWMB (2009).

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tons. Of this total, grocery bags are estimated to account for 44% by weight.<sup>15</sup> Overall, plastic grocery bags therefore represent approximately 0.13% of the waste stream (plastic produce bags are not included in these numbers).

Conventional single-use plastic bags are a product of the petrochemical industry. Their life cycle begins with the conversion of crude oil or natural gas into hydrocarbon monomers, which are then further processed into polymers.<sup>16</sup> These polymers are heated to form plastic resins, which are then blown through tubes to create the air pocket of the bag. Once cooled, the plastic film is then stretched to the desired size of the bag and cut into individual bags.

The plastic resin pellets are a concern when released into the environment. The California State Water Resources Control Board describes the problem as follows:

“Preproduction plastic is a problematic type of litter due to its small size and persistence. One pound of pelletized HDPE plastic can contain approximately 22,000 pellets. Preproduction plastic slowly photodegrades over time by breaking down into smaller and smaller pieces and researchers are unclear as to how long it takes some petroleum-based plastics to degrade. Depending on the plastic type, estimates range from one to ten years up to several centuries to fully degrade.

“Once in the environment, preproduction plastic resin pellets, powders, and production scrap can be mistaken for food by marine life. They also contribute to California’s litter problem, which state and local agencies spend millions of dollars per year on collecting. Preproduction plastic discharges pose a significant threat to California’s marine environment, which is an important part of California’s \$46-billion dollar ocean-dependent, tourism economy.”<sup>17</sup>

None of the LCAs reviewed for this MEA quantitatively analyzed the effects of improper release of resin pellets into the environment.

Typical single-use plastic bags are approximately 5-9 grams (g) in weight, and can be purchased in bulk for approximately 2-5 cents per bag.<sup>18</sup> Plastic bags made of recycled materials cost approximately twice as much as those made from virgin materials.<sup>19</sup> Many of the plastic bag manufacturers in California do not manufacture plastic grocery bags.<sup>20</sup>

Once manufactured, the bags are packaged and shipped to distributors who sell them to grocery stores throughout the state. Because no environmental impacts associated with the consumer use of plastic bags before disposal or discard have been identified or analyzed,

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<sup>15</sup> CIWMB (2009).

<sup>16</sup> Herrera et al (2008); County of Los Angeles (2009).

<sup>17</sup> State Water Resources Control Board (2010).

<sup>18</sup> Estimated weight: AEA Technology (2009); www.usplastic.com

<sup>19</sup> AEA Technology 2009.

<sup>20</sup> Telephone communication with multiple plastic bag manufacturers in California and ICF international; the manufacturers reported that although they make many types of plastic retail and small lightweight bags, they do not make plastic grocery bags.

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this stage in the life cycle is not included in most studies. Rather, the LCA literature focuses on manufacture, distribution, and end-of-life treatment (i.e., disposal).

Customers may reuse the bags at home, but eventually the bags will be disposed in the landfill or recycling facility or discarded as litter. The majority of bags end up as litter or in the landfill, and even those in the landfill may be blown away as litter due to their light weight. Although some recycling facilities will handle plastic bags, most reject them because they can get caught in the machinery and cause malfunctioning, or are contaminated after use. Indeed, only approximately 5% of the plastic bags in California and nationwide are currently recycled.<sup>21</sup>

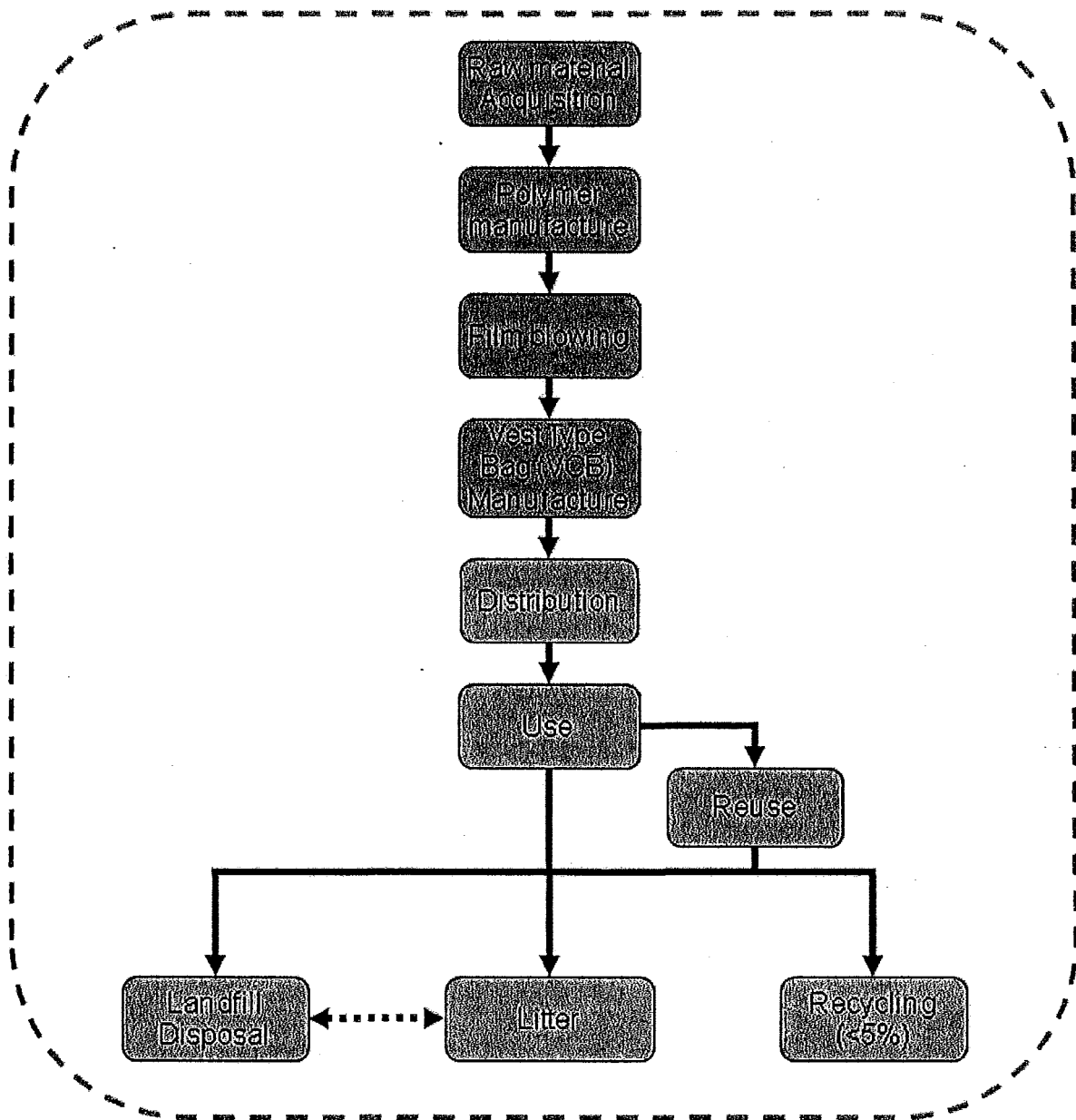
In 2006, California enacted AB 2449 (Chapter 845, Statutes of 2006), which became effective on July 1, 2007. The statute provides that stores that provide plastic carryout bags to customers must provide at least one plastic bag collection bin in an accessible spot to collect used bags for recycling. The store operator must also make reusable bags available to shoppers for purchase. AB 2449 is discussed below in the Regulatory Environment section. As of this time, there is no study of whether AB 2449 has either reduced single-use plastic bag use or resulted in an increase in the recycling rate. Figure 3 outlines the general life cycle of the plastic bag.

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<sup>21</sup> US EPA 2005 Characterization of Municipal Solid Waste, Table 7, as reported in County of Los Angeles (2007); the LCA conducted by Boustead Associates (2007) assumes a 5.2% rate of recycling for plastic bags, based on 2005 EPA data.

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Figure 3: Life Cycle of Plastic Single-Use Bag



**3.2.2. Single-use Paper Bags**

Like plastic grocery shopping bags, single-use paper bags are distributed free of charge to customers at grocery stores, and are intended for one use before disposal. Paper products



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make up 17% of the California disposal waste stream.<sup>22</sup> A subcategory, paper bags – including bags and sheets made from kraft paper; the paper may be brown or white, and examples include paper grocery bags, fast food bags, department store bags, and heavyweight sheets of kraft packing paper – make up 0.4% of the total disposal waste stream, or approximately 155,800 tons. Approximately 21% of paper bags nationwide are recycled.<sup>23</sup> Although the percent is assumed to be similar within California, there is anecdotal evidence that California may have substantially higher rates. The City of San Francisco's Department of the Environment estimates that at least 60% of paper bags are recycled in the City.<sup>24</sup> Similarly, according to StopWaste, Alameda County currently achieves a 60-80% paper bag recycling rate.<sup>25</sup>

In addition, paper bags themselves may be made of post-consumer recycled paper. Weyerhaeuser, a major kraft paper bag manufacturer, reported to Boustead Associates (2007) that its unbleached kraft grocery bag contains approximately 30% post-consumer recycled content.<sup>26</sup> Anecdotal evidence suggests that kraft paper bags with substantially higher post-consumer recycled content are also available. In particular, San Francisco has set a minimum 40% recycled content level for paper bags distributed within the city. StopWaste reports this and other similar requirements have led most supermarkets in California to switch to 40% recycled content paper bags.<sup>27</sup>

Paper grocery bags are typically produced from kraft paper and weigh anywhere from 50-100 g, depending on whether or not the bag includes handles.<sup>28</sup> These bags can be purchased in bulk for approximately 15-25 cents per bag.<sup>29</sup> Kraft paper bags are manufactured from a pulp that is produced by digesting a material into its fibrous constituents via chemical and/or mechanical means.<sup>30</sup> Kraft pulp is produced by chemical separation of cellulose from lignin.<sup>31</sup> Chemicals used in this process include caustic sodas, sodium hydroxide, sodium sulfide, and chlorine compounds.<sup>32</sup> Processed and then dried and shaped into large rolls, the paper is then printed, formed into bags, baled, and then distributed to grocery stores. After use, the bags are frequently reused as waste basket liners. Ultimately, while about 20% of paper bags are recycled, the remaining 80% are landfilled, left as litter, or composted. Because they are significantly heavier than plastic

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<sup>22</sup> CIWMB (2009).

<sup>23</sup> US EPA 2005 Characterization of Municipal Solid Waste, Table 4. As reported in the County of Los Angeles (2007).

<sup>24</sup> City of San Francisco (2010).

<sup>25</sup> StopWaste. 2010. Comments provided to Green Cities California on draft MEA.

<sup>26</sup> Boustead Associates (2007).

<sup>27</sup> StopWaste. 2010. Comments provided to Green Cities California on draft MEA. Statement is based sources at Californians Against Waste.

<sup>28</sup> AEA Technology 2009.

<sup>29</sup> www.mrtakeoutbags.com; City of Pasadena (2008).

<sup>30</sup> FRIDGE (2002).

<sup>31</sup> Environmental Paper Network (2007).

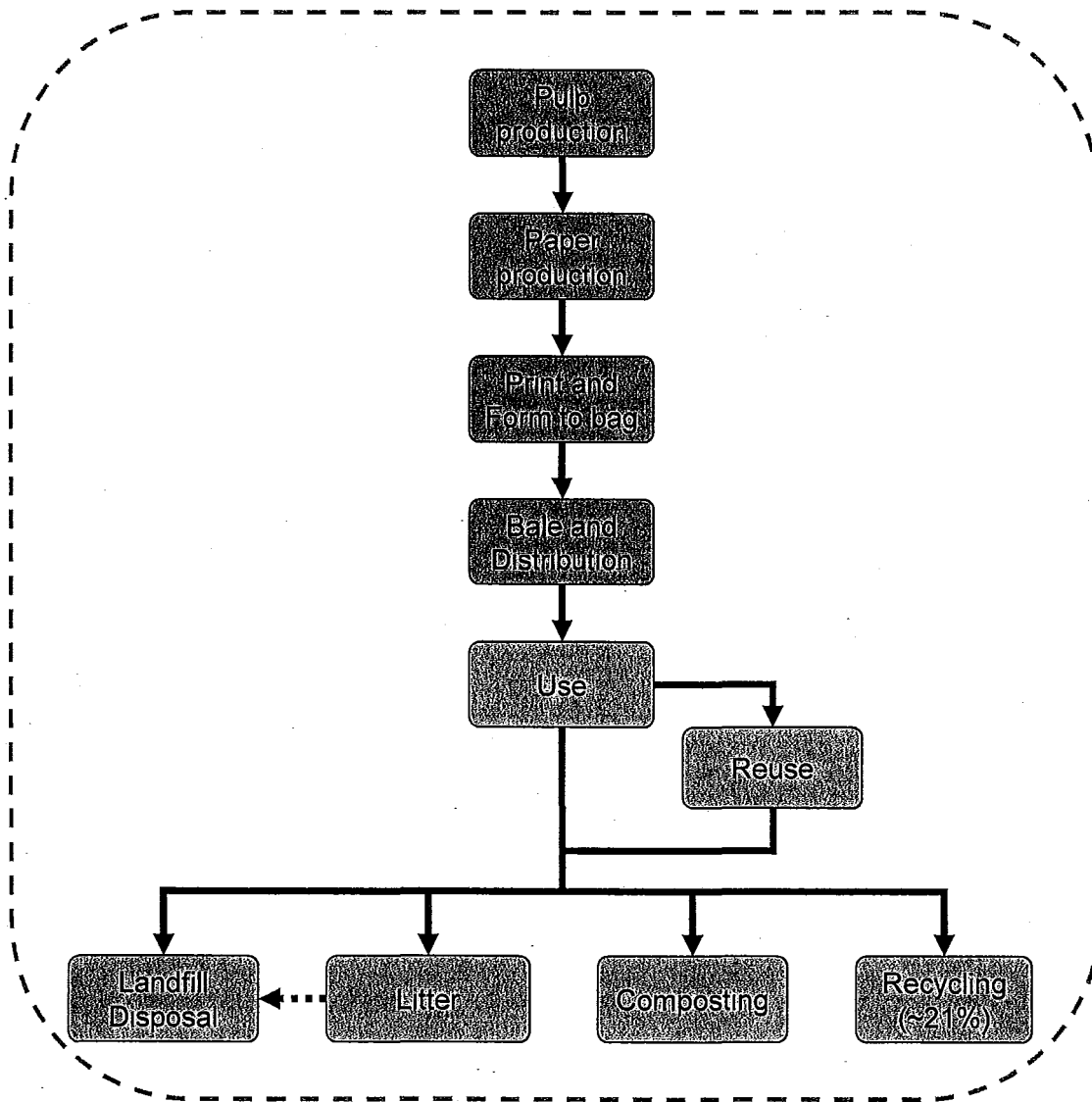
<sup>32</sup> Environmental Paper Network (2007).

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bags, paper bags are less likely to be blown off landfills as litter. And those bags that are left as litter may decompose.<sup>33</sup>

The figure below outlines the general life cycle of the paper bag.

**Figure 4: Life Cycle of Kraft Paper Bag**



**3.2.3. Single-use Biodegradable Bags**

This MEA focuses primarily on compostable and other biodegradable bags, which are the primary types of degradable plastic grocery bags.<sup>34</sup> Biodegradable bags are generally

<sup>33</sup> Greene (2007).

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viewed as an eco-friendly alternative to HDPE plastic bags because they are advertised as being as strong as conventional plastic bags and will decompose at end of life rather than persist and pose aesthetic and health hazards.<sup>35</sup> Multiple types of degradable bags are currently available, distinguished by their material components. They are composed of thermoplastic starch-based polymers, which are made with at least 90% starch from renewable resources such as corn, potato, tapioca, or wheat, or from polyesters, manufactured from hydrocarbons, or starch-polyester blends.<sup>36</sup>

Biodegradable plastics are defined according to the American Society for Testing and Materials (ASTM) D6400 standards as degradable in the presence of naturally occurring microorganisms.<sup>37</sup> These plastics are capable of undergoing decomposition into carbon dioxide, methane, water, inorganic compounds, or biomass.<sup>38</sup> Compostable plastics are a subset of biodegradable plastics that are defined according to ASTM D6400 standards as those biodegradable plastics that will decompose during composting at a rate consistent with other known compostable materials and leave no visible distinguishable or toxic residue.<sup>39</sup> Many biodegradable plastic bags made of corn or potato starch, sugarcane, or polylactic (PLA) or polyhydroxyalkanoate (PHA) acid are considered compostable. However, while PHA-based bags will degrade in oceans and open lands, PLA-based bags will not degrade significantly in non-composting environments.<sup>40</sup> According to Greene (2007), polyethylene plastic bags produced with starch additives are not certified as compostable plastics because after disintegration they will leave small plastic fragments in the compost.<sup>41</sup> Two of the biodegradable plastics currently on the market are the corn-starched based polymer marketed by Novamont known as 'Mater-Bi,' and 'EcoFlex,' which is made of a polyester polymer. Ruiz (2007) examined both the Mater-Bi and EcoFlex bags to determine their ability to degrade in an aerobic composting environment. Both of these bags disintegrated within 30-60 days under laboratory composting conditions.<sup>42</sup> Mohee et al. (2006) also tested the rate of composting for Mater-Bi bags compared with plastic bags

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<sup>34</sup> Other degradable plastics include oxodegradable polymers, which undergo controlled degradation when initiated by natural daylight, heat, or mechanical stress, photodegradable polymers, which break down when ultraviolet light breaks the chemical bonds, and water-soluble polymers, which dissolve in water at a particular temperature range and then biodegrade in contact with microorganisms (James and Grant 2005, Hyder Consulting 2007, CIWMB 2009b). However, researchers at California State University Chico Research Foundation tested the degradation of oxodegradable and photodegradable bags in composting conditions, and found that they did not degrade (CIWMB 2007). Furthermore, these bags reduced the quality of recycled plastics when introduced into the recycling stream and so must be kept separate to avoid contaminating the recycling stream (CIWMB 2007). This MEA does not address these other types of degradable plastics, instead focusing primarily on biodegradable plastics.

<sup>35</sup> According to [www.ecoproducts.com](http://www.ecoproducts.com), the BioBag compostable trash liner will biodegrade in as little as 45 days if disposed at a commercial compost facility. On the shelf they will be stable for up to two years.

<sup>36</sup> James and Grant (2005).

<sup>37</sup> Greene (2007).

<sup>38</sup> Greene (2007).

<sup>39</sup> CIWMB (2008).

<sup>40</sup> CIWMB (2009b).

<sup>41</sup> Greene (2007).

<sup>42</sup> Ruiz (2007).

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made with biodegradable additive. Although the Mater-Bi bags made of starch degraded completely within 60 days, the others required a significantly longer time frame.<sup>43</sup>

Biodegradable bags often take months or years to decompose, and, depending on their material composition, only do so in ideal composting environments (i.e., PLA-based plastic bags). Clearly, if a bag begins to decompose too early due to exposure to high temperatures, light, or moisture, its carrying capacity would be compromised.<sup>44</sup> Although the bags may be unstable in extreme conditions, initial studies have indicated that at end-of-life biodegradable bags may decompose slowly if at all. Greene (2007) tested the degradation of a corn starch-based compostable bag compared to a kraft paper bag in a green yard-waste composting environment. After 20 weeks, each bag had degraded between 80% and 90%.<sup>45</sup> Given that PHA-based plastics do not degrade unless in a composting environment, and the compostable bag required 20 weeks for incomplete degradation under ideal conditions, the claim that biodegradable bags will solve the plastic bag litter problem because they will degrade may be somewhat misleading (see Section 3.4.1). As discussed later under biological resources, bits of plastic are ingested by wildlife and can have adverse effects on their health.

Furthermore, although some regions within California have processing facilities that are prepared for biodegradable bags, others may not. For instance, an article in the *Los Angeles Times* (Proctor 2007) pointed out that although biodegradable bags are required in San Francisco, this policy may not be appropriate in Los Angeles due to the lack of processing facilities to handle biodegradable bags.<sup>46</sup> Biodegradable bags that end up in the ocean may not decompose quickly enough to prevent the risks of injury to marine animals.

Additional characteristics of biodegradable bags suggest that they are not an appropriate substitute for HDPE plastic bags. Biodegradable bags cannot be recycled with other plastic bags. If they enter the recycling material stream, they could contaminate the resulting recycled material, making it unusable.<sup>47</sup>

Biodegradable bags made of Mater-Bi provide a convenient example of the manufacturing process. They are manufactured following the steps outlined in the figure below. These bags are approximately the same size and weight as single-use HDPE plastic bags, but are substantially more expensive. They can be purchased in bulk for approximately 12-30 cents per bag.<sup>48</sup>

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<sup>43</sup> Mohee et al. (2006).

<sup>44</sup> Cadman et al. (2005).

<sup>45</sup> Greene (2007).

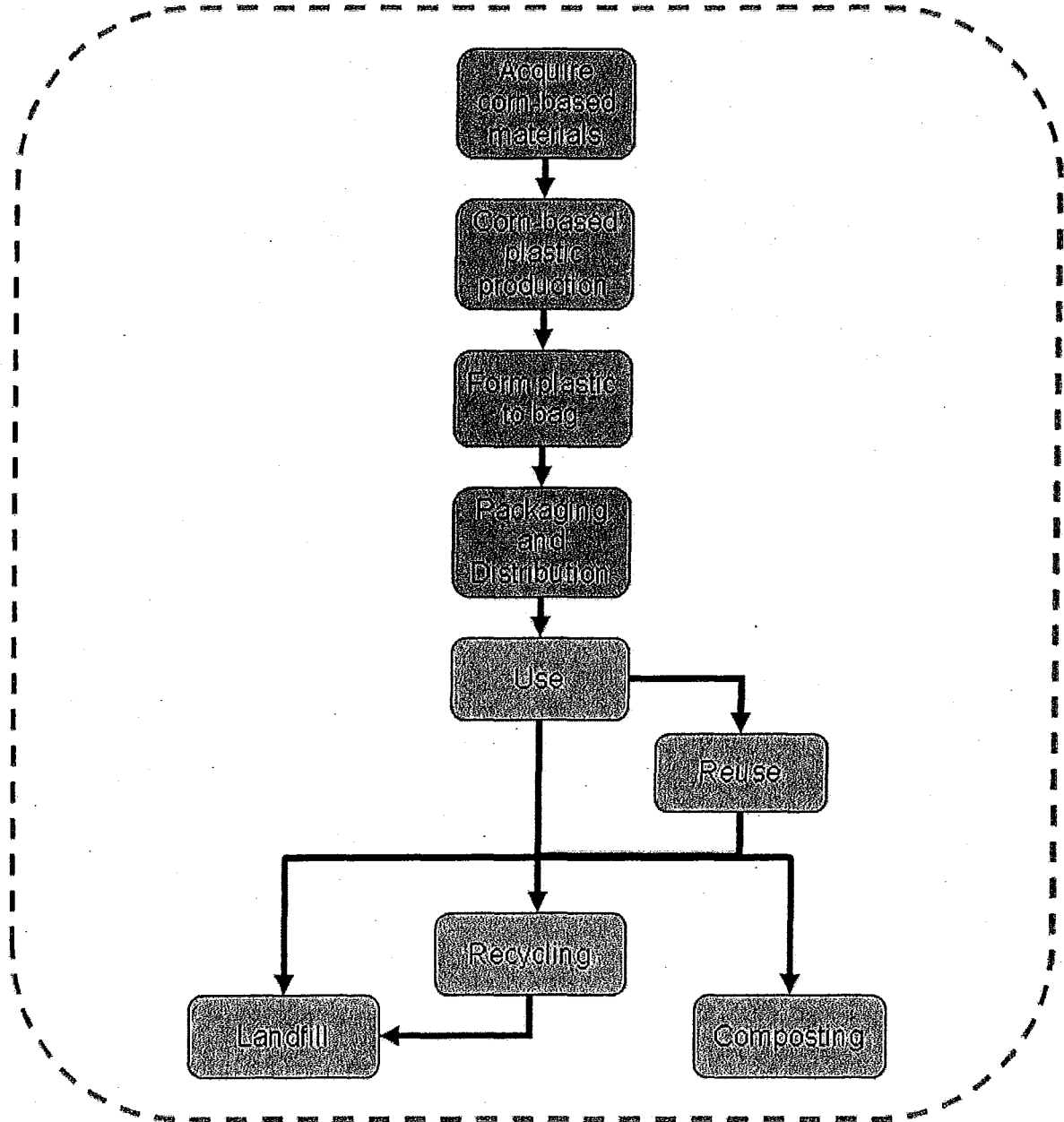
<sup>46</sup> Proctor (2007).

<sup>47</sup> Cadman et al. (2005).

<sup>48</sup> [www.ecoproducts.com](http://www.ecoproducts.com)

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Figure 5: Life Cycle of Mater-Bi and Other Corn-based Biodegradable Bags



### 3.2.4. Reusable Bags

Reusable bags can be made of various materials including polyethylene (PE) plastic, polypropylene (PP) plastics, multiple types of cloth (cotton canvas, nylon, etc.), and recycled plastic beverage containers (polyethylene terephthalate, or PET), among others. As mentioned in Section 1.2.4, the state of California defines these bags as "a bag with handles that is specifically designed and manufactured for multiple reuse and is either made of cloth or other machine washable fabric, and/or thick, durable plastic (at least 2.25

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mils thick).<sup>49</sup> These bags differ from the single-use bags in their weight and longevity. Built to withstand many uses, they typically cost approximately \$1-5 wholesale, weigh at least 10 times an HDPE plastic bag and 2 times a paper bag, and require significantly greater material consumption on a per bag basis than HDPE plastic bags.<sup>50</sup> However, because they can be used hundreds of times, reusable bags can be expected to have a lower environmental impact than plastic bags.

Many types of reusable bags are available today. These include: non-woven polypropylene (100% recyclable) ranging from \$1-\$2.50 per bag, cotton canvas which is approximately \$5.00 per bag, 100% recycled plastic water/soda bottles, which is approximately \$6.00 per bag, polyester and vinyl, which is approximately \$10.00 per bag, and 100% cotton, which is approximately \$10.00 per bag. At the same time, some stores offer reusable bags at substantially less cost in order to reduce the number of single-use bags being used. For example, in early 2010 Whole Foods Markets was selling a small grocery bag made of 80% post-consumer recycled plastic bottles for \$0.79. The production stages in reusable bag life cycles depend on the materials used. Once used, these bags are reused until worn out through washing or multiple uses, and then disposed either in the landfill or recycling facility. Due to their weight, they are less likely than plastic bags to blow off a landfill and become litter.

No comprehensive California-specific life-cycle study has been conducted of the reusable bags commonly used in the state. Therefore it is unclear which types of reusable bags have the least environmental impact. However, previous LCAs not focused in California (James and Grant 2005, and Hyder Consulting 2007) suggest that the non-woven plastic durable bag has the greatest environmental benefits overall, based on an analysis of multiple types of reusable bags.

### **3.3. Regulatory Environment**

The following is a general overview of the regulatory requirements that are relevant to grocery bags. This is not intended to be a detailed discussion. Local regulatory environments may vary. Any CEQA document relying on this MEA should consider the environment that is relevant to its situation and include what applies in that situation.

#### **3.3.1. California Statutes**

##### **AB 2449**

In 2006, California enacted AB 2449 (Chapter 845, Statutes of 2006), which became effective on July 1, 2007. The statute provides that stores that provide plastic carryout bags to customers must provide at least one plastic bag collection bin in an accessible spot to collect used bags for recycling. The store operator must also make reusable bags available to shoppers for purchase. The store is required to keep records describing the collection, transport, and recycling of plastic bags collected for a minimum of three years and make the records available to the state or the local jurisdiction, upon request, to demonstrate compliance with this law. (Public Resources Code Section 42252(d))

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<sup>49</sup> City of Palo Alto Website. Bring Your Own Bag News Detail. Available at: <http://www.cityofpaloalto.org/>

<sup>50</sup> ExcelPlas Australia (2004); City of Pasadena (2008).

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AB 2449 applies to retail stores of over 10,000 square feet that include a licensed pharmacy and to supermarkets with gross annual sales of \$2 million or more which sell dry groceries, canned goods, nonfood items, or perishable goods. Stores are required to maintain records of their AB 2449 compliance and make them available to the CIWMB or local jurisdiction.

AB 2449 requires the manufacturers of plastic carryout bags to develop educational materials to encourage the reduction, reuse, and recycling of plastic carryout bags, and to make the materials available to stores. Manufacturers must also work with stores on their at-store recycling programs to help ensure the proper collection, transportation and recycling of the plastic bags.

AB 2449 restricts the ability of cities (including charter cities) and counties to regulate single-use plastic grocery bags through imposition of a fee. Public Resources Code Section 42254(b) provides as follows:

"(b) Unless expressly authorized by this chapter, a city, county, or other public agency shall not adopt, implement, or enforce an ordinance, resolution, regulation, or rule to do any of the following:

- (1) Require a store that is in compliance with this chapter to collect, transport, or recycle plastic carryout bags.
- (2) Impose a plastic carryout bag fee upon a store that is in compliance with this chapter.
- (3) Require auditing or reporting requirements that are in addition to what is required by subdivision (d) of Section 42252, upon a store that is in compliance with this chapter."

AB 2449 expires under its own terms on January 1, 2013, unless extended. There are no other California statutes that directly focus on grocery bags.

## **AB 1972**

This statute restricts the labeling of grocery bags as "compostable" or marine degradable" and otherwise prohibits use of the terms "biodegradable," "degradable," or "decomposable" when describing plastic bags. (Public Resources Code Section 42353, et seq.) Public Resources Code Section 42357 provides as follows:

- (a) (1) A person shall not sell a plastic bag in this state that is labeled with the term "compostable" or "marine degradable," unless, at the time of sale, the plastic bag meets the applicable ASTM standard specification, as specified in paragraph (1) of subdivision (b) of Section 42356.
- (2) Compliance with only a section or a portion of a section of an applicable ASTM standard specification does not constitute compliance with paragraph (1).
- (b) Except as provided in subdivision (a), a person shall not sell a plastic bag in this state that is labeled with the term "biodegradable," "degradable," or "decomposable," or any form of those terms, or in any way imply that the bag will break down, fragment, biodegrade, or decompose in a landfill or other environment.
- (c) A manufacturer or supplier, upon the request of a member of the public, shall submit to that member, within 90 days of the request, information and documentation

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demonstrating compliance with this chapter, in a format that is easy to understand and scientifically accurate.

### **AB 258**

AB 258 was enacted in 2008 to address the problems associated with releasing "preproduction plastic" (including plastic resin pellets and powdered coloring for plastics) into the environment. It enacted Water Code Section 13367 requiring the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) to implement a program to control discharges of preproduction plastic from point and nonpoint sources.

Program control measures must, at a minimum, include waste discharge, monitoring, and reporting requirements that target plastic manufacturing, handling, and transportation facilities. The program must, at a minimum, require plastic manufacturing, handling, and transportation facilities to implement best management practices to control discharges of preproduction plastics. This includes containment systems, careful storage of pre-production plastics, and the use of capture devices to collect any spills.

The State Water Resources Control Board reports that it is taking the following actions to comply with Section 13367:

"State and Regional Water Board staff has conducted and are continuing to conduct compliance inspections of various types and scales of preproduction plastic manufacturing, handling, and transport facilities enrolled under California's Industrial General Permit (IGP) for storm water discharges. Additionally, the Los Angeles Regional Water Quality Control Board has conducted hundreds of inspections of facilities suspected to be "non-filers," or facilities subject to the permit, but have not enrolled. Collectively these inspections will help State and Regional Water Board staff to develop cost-effective regulatory approaches (including compliance-evaluation procedures and appropriate best management practices) for addressing this pollution problem.

"The State Water Board has issued an investigative order to all plastic-related facilities enrolled under the IGP to provide the State Water Board with critical information needed to satisfy the legislative mandates in AB 258 (Krekorian). Facilities subject to this order must complete an online evaluation and assess their points of potential preproduction plastics discharge and means of controlling these discharges. Data gathered as a result of this effort will be used to help the State Board understand the California plastics industry and ultimately develop appropriate regulation of these facilities to ensure compliance with the Clean Water Act."<sup>51</sup>

### **3.3.2. Trash Control Regulations**

Federal, state, and regional water quality standards have resulted in the passage of regional regulations that will eventually prohibit the release of trash to surface waters, including grocery bags that have become litter. Reducing the use of disposable single-use grocery bags is one way of reducing the amount of litter that must be captured before it can enter surface waters. These regulations are described below.

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<sup>51</sup> State Water Resources Control Board (2010).



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Congress passed the Clean Water Act (CWA) in 1972, which authorized the U.S. Environmental Protection Agency (US EPA) to set federal water quality regulations. The CWA requires completion of Total Maximum Daily Load (TMDL) levels for all pollutant-impaired waters, and requires each state to:

- Identify water bodies that are water quality limited. These water bodies are then placed on the state's "303(d) List" (CWA Section 303 (d)(1) requires each state to identify the waters within its boundaries that do not meet water quality standards).
- Prioritize and target water bodies for TMDL's
- Develop TMDL plans to attain and maintain water quality standards for all water quality limited waters

The TMDL is a number that represents the assimilative capacity of a receiving water (such as a river or creek) to absorb a pollutant. The TMDL is the sum of the wasteload allocations for point sources (specific physical sources, such as a pollution outflow pipe) and nonpoint sources (broad area sources, such as a plowed field or mining waste heap), plus an allotment for natural background sources of pollutants, and a margin of safety. TMDLs can be expressed in terms of mass per time (the traditional approach), or in other ways, such as a percentage reduction or other appropriate measure relating to a state water quality objective. A TMDL is implemented by reallocating the total allowable pollution among the different pollutant sources (through the permitting process or other regulatory means) to ensure that the water quality objectives are achieved.

In short, a TMDL establishes a maximum limit for a specific pollutant that can be discharged into a water body without causing it to become impaired. A given water body may have more than one pollutant that will require the establishment of a TMDL.

TMDLs are enforced through State and Federal discharge permits issued to cities, such as the Municipal Stormwater National Pollutant Discharge Elimination System (NPDES) permit and Publicly Owned Treatment Works (POTWs) permit. Violation of these permits can result in exposure to both civil and criminal liabilities. Upon establishment of TMDLs by the State or US EPA, the State is required to incorporate the TMDLs into the State Water Quality Management Plan.

In California, TMDLs are prepared by the Regional Water Quality Control Boards and adopted by the State Water Resources Control Board as part of each region's Basin Plan. TMDLs are adopted to regulate a variety of pollutants (e.g., bacteria, sediment, heavy metals, pesticides and other toxic pollutants, and nutrients), including trash.

The following adopted trash TMDLs control the release of trash to impaired water bodies.

***Los Angeles Regional Water Quality Control Board (RWQCB) Trash TMDLs***

In 1996 and 1998, the Los Angeles RWQCB identified more than 160 water body segments that are polluted by various constituents and therefore exceed their water quality standards. In 1998, a coalition of environmental advocacy groups sued the US EPA for failure to ensure timely development of TMDLs for each polluted water in the Los Angeles region. The litigation resulted in a consent decree signed in 1999 (*Heal the Bay, et al. v. Browner*) that established a schedule for completing TMDLs for all the polluted waters within the region.

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The Los Angeles River TMDL was adopted by the Los Angeles RWQCB in 2001. The Los Angeles River TMDL required Southern California cities discharging into the river to reduce their trash contribution by 10% each year for a period of 10 years, with the goal of zero trash (i.e., a 100% reduction) in the two waterways by 2015. The Los Angeles River TMDL was subsequently challenged by a variety of affected municipalities, and invalidated by the 4th District Appellate Court in 2006. The Court ruled there was insufficient analysis of the environmental impacts that could be caused by implementation of the Los Angeles River TMDL. In 2007, the Los Angeles RWQCB revised the CEQA documentation and amended the Los Angeles River Trash TMDL. The amended Los Angeles River Trash TMDL became effective in 2008. In December 2009, the Los Angeles RWQCB revised the Municipal Stormwater (MS4) Permit for Los Angeles County and its cities (except for Long Beach) to include the Trash TMDL in the provisions of the permit. This will improve enforcement of the TMDL.

In addition to the Los Angeles River TMDL, eight other Trash TMDLs exist in the Los Angeles region. All of these TMDLs include the same requirements: for point sources, there must be a 20 percent reduction in trash per year. For non-point sources, a Trash Monitoring and Reporting Plan (TMRP) must be completed and submitted to the RWQCB. Once submitted, monitoring must occur to ensure the TMRP is being properly implemented. (Eric Wu, Unit Chief, Los Angeles RWQCB TMDL Unit). These eight TMDLs and the year they went into effect are listed below:

- Malibu Creek - 2009
- Legg Lake (located on San Gabriel River) - 2008
- Lake Elizabeth, Munz Lake, and Lake Hughes (located on Santa Clara River) - 2008
- Ventura River Estuary - 2008
- Revolon Slough and Beardsley Wash Trash (located on Calleguas Creek) - 2008
- Machado Lake (located on Dominguez Channel) - 2008
- Ballona Creek - 2002
- San Gabriel East Fork (located on San Gabriel River) - 2001

***Colorado River Basin RWQCB – New River***

The New River is located in the southeastern portion of the Salton Sea Transboundary Watershed. This Watershed consists almost entirely of highly productive farmland irrigated with water imported from the Colorado River. The New River is one of the main tributaries to the Salton Sea, which is California's largest inland surface water.

In 2002, the Colorado River Basin RWQCB listed the New River on the CWA Section 303(d) List because trash and other pollutants violated water quality objectives that protected beneficial uses. The beneficial uses provided by the Colorado River Basin RWQCB include: warm freshwater habitat; wildlife habitat; preservation of rare, threatened, or endangered species; water contact recreation; noncontact water recreation; and freshwater replenishment. As a result, the New River Trash TMDL was adopted by the Colorado River Basin RWQCB in 2006 and approved by the State Water Resources Control Board (SWRCB) and the US EPA in 2007.

The New River TMDL established an interim numeric target of 75% reduction in trash within two years of SWRCB and US EPA approval of the TMDL, and a final numeric target of zero

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trash (i.e., 100% reduction) within three years of SWRCB and US EPA approval. The Colorado River Basin RWQCB does not currently have any data regarding progress towards achieving the 75% reduction in trash target by 2009, or the 100% reduction in trash target by 2010. The issue will be revisited in 2010, when the Colorado River Basin RWQCB will examine progress on completion of the TMDL implementation plan and determine the percentage of reduction in trash achieved to date. (Nadim Zorzeywar Senior Environmental Science, Colorado River Basin RWQCB).

***San Francisco RWQCB – Municipal Regional Stormwater NPDES Permit***

Municipal governments in the San Francisco Bay Area, including municipalities and local agencies in Alameda, Contra Costa, San Mateo, and Santa Clara counties, and the cities of Fairfield, Suisun City, and Vallejo (referred to as the permittees), are subject to a recently adopted Municipal Regional Stormwater NPDES Permit (MRP) regulating stormwater discharges in accordance with the Clean Water Act. This MRP was adopted by the San Francisco RWQCB on October 14, 2009.

The MRP states that the permittees must protect the quality of receiving waters through the timely implementation of control measures and other actions to reduce trash loads from municipal separate storm sewer systems (MS4s) by 40% by 2014, 70% by 2017, and 100% by 2022.

As part of the MRP, the permittees must develop and implement a Short-Term Trash Load Reduction Plan, including an implementation schedule. This includes implementation of a mandatory minimum level of trash capture; cleanup and abatement progress on a mandatory minimum number of 'trash hot spots' (high trash-impacted locations on State waters); and implementation of other control measures and best management practices, such as trash reduction ordinances, to prevent or remove trash loads from MS4s to attain a 40% reduction in trash loads by July 1, 2014. The permittees must also develop and begin implementation of a Long-Term Trash Load Reduction Plan to attain a 70% reduction in trash loads from their MS4s by 2017 and 100% by 2022.

Smaller municipalities (with a population less than 12,000 and retail/wholesale land less than 40 acres, or a population less than 2000) are exempt from this requirement.

Failure to comply with these requirements can lead to legal enforcement action by the SWRCB against the applicable local agency.

### **3.4. Potential Environmental Concerns**

The MEA is a comprehensive information source on grocery bags. It is not an environmental analysis, per se. The following discussions are intended to highlight the areas of environmental concern that may arise, given a community's specific circumstances, from consideration of single-use grocery bags. While this information can help agencies assess the significance of proposed regulations of single-use and reusable bags, these discussions should not be viewed as an environmental analysis of the issues, nor a determination of their significance for a particular project. The examination of impacts, conclusions regarding their significance, and feasible mitigation measures are the purview of the lead agencies that may use the MEA as an information source during their CEQA analyses.

### 3.4.1. Aesthetics

When improperly disposed of (i.e., not recycled or sent to a landfill), grocery bags contribute to the visual effects of litter. In particular, HDPE plastic bags that are not disposed of in a landfill are likely to end up as litter. Even those bags set out for collection as garbage or for recycling or at a landfill may be blown away as litter due to their light weight.<sup>52</sup>

The Los Angeles County Staff Report on Plastic Bags (2007) summarizes several studies conducted on plastic litter. Based on five studies, the report suggests that plastic films, which include plastic bags, account for 7-30% by weight of all litter in the Los Angeles area. HDR Consulting (2008) conducted an audit of San Francisco large litter (items over 4 square inches), and concluded that bags constituted 5.9% of that litter in 2008.<sup>53</sup> Plastic bags account for 73% of the bag litter, while paper accounts for the remaining 27%.<sup>54</sup>

The visual impact of plastic bag litter is a recognized problem, not just in California. In Wales, there is a "high level of disapproval in the eye of the Welsh public" and two thirds of people responding to a Keep Wales Tidy survey described plastic bags as a 'major problem'.<sup>55</sup> According to the 2002 Environment Australia report, plastic bags may remain in the litter stream for five years.

Compared to plastic bags, paper bags pose less of a litter risk because of their biodegradability, weight, and recyclability. In fact, the 2002 Environment Australia report assumes that paper bags only remain in the litter stream for six months.<sup>56</sup> A paper bag weighs significantly more than a plastic bag and is therefore less likely to be carried by the wind as litter. According to the Ecobilan LCA (2004), single-use paper bags are 0.2 times as likely as HDPE plastic bags to become litter.

Reusable bags pose a smaller litter threat than lightweight disposal plastic bags. Cotton calico bags, in particular, remain in the litter stream for 2 years, compared to 5 years for HDPE plastic bags.<sup>57</sup> Heavy, valuable, and intended for multiple uses, reusable bags are produced in smaller quantities than plastic bags, and are purchased by consumers. Because of their durability and monetary value, they are less likely than HDPE plastic bags to be simply discarded after use. In fact, according to the Ecobilan LCA (2004), reusable LDPE plastic bags are 0.4 times as likely as HDPE plastic bags to become litter. Other types of reusable bags may have an even lower likelihood of becoming litter.

The Environment Australia (2002) report suggests that biodegradable bags may remain in the litter stream for only 6 months. However, despite beliefs to the contrary, these bags may pose a more substantial litter risk than plastic bags because consumers are more likely to discard them, believing them to biodegrade readily. Actually, biodegradable bags take at least a few weeks to begin degrading, and depending on their material composition,

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<sup>52</sup> AEA Technology (2009); County of Los Angeles (2007).

<sup>53</sup> HDR (2008).

<sup>54</sup> HDR (2008).

<sup>55</sup> Keep Wales Tidy. 2006. Plastic Bag Litter Position Paper. July 2006. As reported in AEA Technology (2009).

<sup>56</sup> Environment Australia (2002).

<sup>57</sup> EuroCommerce (2004).

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only degrade in composting conditions with micro-organisms.<sup>58</sup> In fact, AEA Technology (2009) concludes that "lightweight bags of any material are equally as likely to cause problems through littering."<sup>59</sup> And the slow degradation of biodegradable bags in a landfill would have no significant positive impact on landfills; rather, the bags may cause leachate problems and become wind-blown litter.<sup>60</sup> Degradable bags have been presented as alternatives to the single-use plastic bag in part because of the claim that they do not pose a litter problem. AEA Technology (2009) reports that this claim may send the wrong message to consumers, indirectly encouraging them to discard these bags under the assumption that they will eventually break down. Previous LCAs indicate that this mentality could result in even more litter, as people may carelessly dispose of degradable bags in environments not conducive to degradation. Finally, recycling facilities are not currently set up to handle both degradable and HDPE plastic bags. In general, biodegradable bags are not recycled, and mixing them with HDPE plastic bags would result in contamination.<sup>61</sup> This would disrupt the already low level of HDPE plastic bag recycling.

Litter not only negatively affects aesthetics. It also creates adverse effects on marine and land-based wildlife. Section 3.4.4 on biological resources provides a more detailed discussion of these litter impacts.

### **3.4.2. Agricultural Resources**

Previous LCAs do not thoroughly address the potential impacts of various grocery bags on agricultural resources. Consequently, the extent to which the manufacture of corn-based biodegradable bags may affect US corn production is unknown. There has been the suggestion that plastic bags in litter can jam farm machinery, but there is no evidence that this is a common problem.

### **3.4.3. Air Quality**

#### **Greenhouse Gas Emissions**

Bag manufacture, transport, and disposal all result in greenhouse gas emissions, atmospheric acidification, and ground level ozone formation. A switch to reusable bags is predicted to result in decreased transport-related emissions due to less bag manufacturing and collection at disposal. However, because HDPE plastic bags have a significantly lower volume than paper or reusable bags, a switch from plastic to paper may result in short-term increase in transportation. Any increase is thought to be insignificant, on the order of one additional truck trip per day per small city.<sup>62</sup>

The Ecobilan study (2004) compares bags using these metrics, and concludes that the paper bag has a significantly larger impact on air quality than single-use plastic bags.<sup>63</sup>

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<sup>58</sup> Environment Australia (2002).

<sup>59</sup> AEA Technology (2009).

<sup>60</sup> Environment Australia (2002).

<sup>61</sup> Cadman et al. (2005).

<sup>62</sup> City of Palo Alto (2009)

<sup>63</sup> Ecobilan (2004). Carrefour Bag Study. The results of this report assume that all bags are sent to a landfill at disposal. Because in reality a higher percentage of paper bag are recycled than plastic bags, the results of this LCA must be treated with caution.

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Paper bag production, use, and disposal results in 3.3 times the greenhouse gas (GHG) emissions associated with HDPE single-use plastic bags. If only used once, a reusable LDPE bag results in 2.6 times the GHG emissions of a single-use HDPE plastic bag. That said, a reusable bag used 3 times will have fewer GHG emissions per use than a plastic bag. These results match those of an earlier study conducted by Franklin Associates (1990), which concluded that paper bags, compared to HDPE plastic bags, create 90% more GHG emissions.

ExcelPlas Australia (2004) conducted an LCA focusing on disposable and reusable bags as well as degradable plastic bags. The study found that GHG emissions for all bag types are dominated by carbon dioxide through electricity and transport consumption, by methane through the degradation of materials in anaerobic conditions, and nitrous oxide emissions in fertilizer applications on crops.<sup>64</sup> Their results indicated that degradable polymers with starch content have higher impacts upon GHG emissions because of methane emissions during landfill degradation and nitrous oxide emissions from fertilizing crops. This study followed an analysis by Environment Australia (2002), which indicated that the global warming impact of paper bag use is almost twice that of conventional plastic bags.<sup>65</sup>

Further, the Boustead Consulting Study (2007) compared paper, HDPE plastic, and compostable plastic bags, assuming that one paper bag can carry the same quantity of groceries as 1.5 plastic bags. Study results indicate that paper bag production, use, and disposal result in twice the GHG emissions of conventional PE bags.<sup>66</sup> Compostable plastic bag manufacture, use, and disposal, however, result in 4.5 times the GHG emissions of plastic bags.<sup>67</sup> In addition, the Finnish Environment Institute (SYKE) conducted a study of paper, cotton, and recycled plastic biodegradable bags. The authors determined that biodegradable bags are the worst alternative from the point of view of GHG emissions because they contain substances of fossil origin that increase bag durability, but will be released during decomposition in a compost or landfill. These bags are therefore only viable from a GHG emission standpoint if they are burned in a waste-to-energy facility or used in biogas production.<sup>68</sup> In contrast to these results, Murphy (2004) compared the cradle-to-factory-gate GHG emissions of petrochemical polymers and various biodegradable polymers,<sup>69</sup> and found that each of the biodegradable polymers resulted in significant GHG savings. These apparently conflicting results emphasize the particularity of each study and the importance of understanding study boundaries (i.e., distinguishing between the cradle-to-grave and cradle-to-factor-gate analyses).

SYKE (2009) also examined reusable bags and concluded that because of high emissions associated with cotton production and the fact that waste bags would need to be used in addition to the cotton bags, the cotton bag must be used more than 180 times before its climate impact is smaller than the climate impacts of a continuous use of recycled plastic

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<sup>64</sup> ExcelPlas Australia (2004).

<sup>65</sup> Environment Australia (2002): These results are based on a 6 g plastic bag and 42.6 g paper bag with equal carrying capacity.

<sup>66</sup> Boustead Associates (2007).

<sup>67</sup> Boustead Associates (2007).

<sup>68</sup> SYKE (2009).

<sup>69</sup> Biodegradable polymers studied include: 100% thermoplastic starch, thermoplastic starch plus 60% polycaprolactone, and polylactic acid. Murphy (2004).

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bags.<sup>70</sup> The authors surmised that if the cotton bag is used enough times in conjunction with small waste bags, then the combination may be better than the conventional plastic bag, but not better than the paper bag or plastic bag made of recycled materials. In short, the study argued that if reusable bags are used, they should be made of other fibers than cotton. An earlier study by Hyder Consulting (2007) suggests that the non-woven polypropylene 'Green Bag' would offer significant GHG savings, on a level of about 6 kilograms (kg) per household per year.<sup>71</sup>

### **Atmospheric Acidification and Criteria Pollutants**

According to Ecobilan (2004), a reusable LDPE plastic bag results in 3 times the atmospheric acidification of HDPE plastic bags. Again, used multiple times, the LDPE reusable bag has a less significant impact than HDPE bags on a per use basis. A paper bag has 1.9 times the impact of HDPE plastic bags on atmospheric acidification. The Franklin Associates (1990) study, reviewed by FRIDGE (2002), suggests that atmospheric emissions for plastic bags are 63-73% less than for paper bags at zero percent recycling. Even assuming 0% plastic bag recycling and 100% paper recycling and a ratio of two plastic bags per paper bag, atmospheric emissions per 10,000 bags are 10.84 kg for plastic bags compared to 14.61 kg for paper bags.<sup>72</sup> Emission categories analyzed include particulates, nitrogen oxides, hydrocarbons, sulfur oxides, carbon monoxide, and odorous sulfur.

### **Ground-level Ozone**

Ozone precursors and particulate matter are emitted into the atmosphere when fuel is burned during the manufacture of plastic and paper bags. Comparison of these emissions from manufacture of various bags indicates the following results, according to Ecobilan (2004): a reusable LDPE plastic bag results in 1.4 times the ground level ozone formation of HDPE plastic bags; when used multiple times, a reusable LDPE plastic bag has a less significant impact than HDPE plastic bags on a per use basis; and a paper bag has 1.3 times the impact of HDPE plastic bags on ground level ozone formation.

#### ***3.4.4. Biological Resources***

Plastic grocery bags enter the biological environment primarily as litter. This can adversely affect terrestrial animal species, birds, and marine species that ingest the plastic bags (or the residue of plastic bags) or become tangled in the bag. Plastic bags and food containers are a significant portion of the trash in urban surface water runoff in Southern California.<sup>73</sup> The proportion of this trash or litter that is made up of grocery bags is unknown.

Over 260 species of wildlife, including invertebrates, turtles, fish, seabirds and mammals, have been reported to ingest or become entangled in plastic debris. The results include

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<sup>70</sup> SYKE (2009).

<sup>71</sup> Hyder Consulting (2007): This study is particular to Australia, with transport distances and end-of-life assumptions that may not be representative of California bags.

<sup>72</sup> Franklin Associates (1990), as reported in FRIDGE (2002).

<sup>73</sup> Trash TMDL for the Los Angeles River Watershed, (September 19, 2001):17.

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impaired movement and feeding, reduced reproductivity, lacerations, ulcers, and death.<sup>74</sup> Ingested plastic bags impact wildlife by clogging animal throats and causing choking, filling animal stomachs so that they cannot consume real food, infecting animals with toxins from the plastic, and entangling animals in the plastic. ExcelPlas Australia (2004) reports that sea turtles sometimes mistake plastic bags for jellyfish, one of their primary food sources. Many have been found bloated with plastic bags in their digestive tract and gut.<sup>75</sup> According to the International Coastal Clean-up Report (2005), 2.2% of all animals found dead during the 2004 survey had been entangled in plastic bags.<sup>76</sup> The proportion of these bags that were grocery bags is unknown.

Less directly, the small plastic pellets that are eventually manufactured into bags often end up in storm drains.<sup>77</sup> Mistaken for fish eggs, they are consumed by marine life. A study conducted by Tokyo University geochemist Hideshige Takada found that the toxic chemicals in plastic pellets accumulate in birds at levels of up to one million times the normal level in seawater.<sup>78</sup>

According to the ExcelPlas Australia (2004) study, material density is more important than degradability in determining the risk of harmful impacts to marine wildlife. Biodegradable plastic bags may have a similar impact, because they only biodegrade at a relatively fast rate when in a composting facility in the presence of microorganisms. In oceans they can take more than five months to partially decompose, leaving a substantial time period during which they may affect wildlife.<sup>79</sup> In a study of early Mater-Bi material composed of thermoplastic starch and polycaprolactone, McClure (1996) concluded that starch-based plastics are likely to be a lower-risk to marine animals than conventional HDPE plastics.<sup>80</sup> However, Herrera et al (2008) points out that while partially degraded smaller pieces of plastic are less likely to be consumed by large marine animals, they may be mistaken as food for smaller animals.<sup>81</sup> It is still uncertain whether or not these smaller pieces pose a significant risk, as they may continue to degrade in the smaller animals' digestive tracts.<sup>82</sup>

Paper grocery bags are also released into the environment as litter. They generally have less impact on wildlife because they are not as resistant to breakdown as is plastic, therefore running less risk of entanglement, and while probably not as healthy a food source as natural foods, if ingested they can be chewed effectively and may be digested by many animals. The literature on the biological effects of paper grocery bag litter is practically non-existent. Less directly, as with plastic bags, the manufacture of paper bags also has adverse effects on wildlife.

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<sup>74</sup> Laist (1997), Derraik and Gregory (2009).

<sup>75</sup> ExcelPlas Australia (2004).

<sup>76</sup> International Coastal Clean-up, 2005. The International Coastal Clean Up 2005 Report. Ocean Conservancy. As reported in AEA Technology 2009.

<sup>77</sup> State Water Resources Control Board 2010

<sup>78</sup> FEE 2007, as reported in Herrera et al (2008).

<sup>79</sup> McClure (1996).

<sup>80</sup> McClure (1996).

<sup>81</sup> Nolan-ITU 2003 as reported in Herrera et al (2008).

<sup>82</sup> Cadman et al. (2005).



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Although no reviewed studies comprehensively reviewed the impacts of reusable bags on biological resources, it is believed that these bags will not have a significant impact on marine life. Due to the weight and sturdiness of these bags made for multiple uses, reusable bags are unlikely to be littered or carried from landfills by the wind as litter. Therefore, they are less likely to enter the oceans as waste. However, additional research is needed to identify other potential biological resource hazards associated with various types of reusable bags.

### ***3.4.5. Cultural Resources***

The LCA literature does not discuss the impacts of various bags on cultural resources. Any impacts would probably be associated with litter.

### ***3.4.6. Geology and Soils***

The LCA literature does not discuss in detail the impacts of various bags on geology and soils. There is some concern that biodegradable plastic bags may release leachates into the soil of landfills. However, additional research is needed to understand the significance of this impact area.

### ***3.4.7. Hazardous Materials***

The LCA literature does not discuss the impacts of various bags as hazardous materials. However, some of the raw materials used in the process of manufacturing bags are hazardous materials.

In their completed form, paper bags do not qualify as hazardous materials. However, as mentioned above, the raw materials and the process of manufacturing bags can involve hazardous materials. In addition, for both biodegradable and reusable bags, the raw materials and the process of manufacturing bags can involve hazardous materials.

### ***3.4.8. Hydrology and Water Quality***

#### **Hydrology**

Grocery bag disposal can adversely affect local hydrology. For instance, plastic bag litter can block waterways (primarily storm drains) resulting in contamination and changes in waterflow to surrounding areas. Eliminating this problem is one basis for the trash TMDL regulations discussed above. Plastic bag litter is a significant contributor to this type of impact, but is not the sole source.

#### **Water Consumption**

Bag manufacture uses substantial amounts of water. The Ecobilan report (2004) indicates that water consumption over a paper bag's life cycle is 4 times that of an HDPE plastic bag.<sup>83</sup> A reusable LDPE plastic bag results in 2.6 times the consumption of water of an HDPE plastic bag when compared on a per bag basis.<sup>84</sup> As noted above, reuse of the

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<sup>83</sup> Ecobilan (2004).

<sup>84</sup> Ecobilan (2004).

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LDPE plastic bag three times is sufficient for per-use water consumption impacts to be less than for HDPE plastic bags. The Australian study conducted by Hyder Consulting (2007) corroborates this finding, suggesting that compared to the conventional plastic bag, the non-woven polypropylene 'Green Bag' would offer water consumption savings of 7 liters per household per year.<sup>85</sup> The Boustead Consulting Study (2007) compared paper, HDPE plastic, and compostable plastic bags, assuming that one paper bag can carry the same quantity of groceries as 1.5 plastic bags. Study results indicate that water use for both paper and compostable plastic bags is more than 16 times the use for HDPE plastic bags.<sup>86</sup> Water used in manufacturing is an indirect effect of bag use and may not result in a direct impact to a community, unless it is home to a bag manufacturer.

### **Water Quality**

The release of bags into the environment can adversely affect water quality. Federal law, as administered by the State Water Resources Control Board and the Regional Water Quality Control Boards, requires the maintenance of water quality. This can include eliminating the volume of trash that enters surface waters. This was discussed previously in Section 3.3. In addition, release of bags may contaminate the water (in the sense of contributing to trash) creating negative health impacts for freshwater and marine organisms, as discussed in Section 3.4.4.

Furthermore, according to the Ecobilan study (2004), paper bags have 14 times the impact of HDPE plastic bags on eutrophication (e.g., nitrate and phosphate emissions into water that stimulate excessive growth of algae and other aquatic life) as a result of their manufacturing process. Reusable LDPE bags have 2.8 times the impact when used only once. The Franklin Associates (1990) study suggests that paper bags generate 12 times the level of eutrophication as HDPE plastic bags during manufacture. This assessment covered dissolved solids, biological oxygen demand (BOD), suspended solids, and acids. According to ExcelPlas Australia (2004), as the use of renewable resources for polymer production increases, so does the impact on eutrophication due to the application of fertilizers to the land and runoff of nutrients into waterways. This assessment suggests that the manufacture of degradable bags may be especially harmful in this impact area. Again, this is an indirect effect of bag use. More directly, degradation of biodegradable bags into a wide range of products and residues after their use, some of which may be toxic unless the bag is compostable, could contribute to the biological oxygen demand (BOD) and chemical oxygen demand (COD) of aquatic regions with unknown consequences.<sup>87</sup>

### **3.4.9. Land Use and Planning**

The literature does not provide a detailed discussion of the impacts of various bags on land use and planning. However, a shift to plant-based resource consumption rather than nonrenewable mineral resources could affect agricultural land use. This is an indirect effect of bag use. This impact area needs to be examined more carefully with attention to the specific region affected in order to draw reasonable conclusions.

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<sup>85</sup> Hyder Consulting (2007): This study is particular to Australia, with transport distances and end-of-life assumptions that may not be representative of California bags.

<sup>86</sup> Boustead Associates (2007).

<sup>87</sup> Environment Australia (2002).

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### **3.4.10. Mineral Resources**

Fossil fuel use is significant in the production of bags. According to Hyder Consulting (2007), single-use plastic bags, and single-reusable non-woven plastic polypropylene bags are produced through a by-product of gas or oil refining. In contrast, kraft paper bags, cotton bags, and starch-based biodegradable bags are manufactured from renewable resources.<sup>88</sup> Even so, significant fossil fuel use is required for the manufacture of these types of bags. Manufacturing one billion super-thin plastic bags per day for one year requires 37 million barrels of oil.<sup>89</sup> Approximately 10% of US oil and gas productions and imports are used in synthetic plastic production.<sup>90</sup> According to the cradle-to-grave Boustead Consulting study (2007), fossil fuel use in the manufacture of 1000 paper bags composed of at least 30% recycled fiber is 23.2 kg, whereas it is 14.9 kg for 1500 PE plastic bags and 41.5 kg for 1500 compostable plastic bags.<sup>91</sup> However, ExcelPlas Australia (2004) suggests that one of the main benefits of biodegradable bags is the potential for lower consumption of non-renewable resources due to a greater dependence on renewable resources such as crops.<sup>92</sup>

### **3.4.11. Noise**

No significant noise concerns are associated with any types of single-use or reusable bags. However, any minor noise impacts associated with bag manufacturing and transportation are region-specific, and therefore not addressed in this MEA.

### **3.4.12. Population and Housing**

A shift in bag use would have no impact on population and housing.

### **3.4.13. Public Services**

As mentioned above, disposable grocery bags contribute to litter and can contaminate composting and recycling efforts. In addition, cleaning up litter caused by improper disposal of bags generally results in substantial costs for communities. Here are some examples of costs in several jurisdictions – local costs may vary. Because single-use conventional plastic and biodegradable bags are more likely than other bag types to persist as litter, it is assumed that they would be responsible for the majority of bag litter cleanup costs.

Herrera et al. (2008), a report prepared for the City of Seattle, compared cleanup costs associated with both paper and plastic grocery bags in San Francisco and Seattle, as shown below.<sup>93</sup> The second Seattle column represents costs for plastic bags.

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<sup>88</sup> Hyder Consulting (2007).

<sup>89</sup> This statistic is based on a survey by the China Plastics Processing Industry Association, according to Zaleski 2008, as reported in Chan et al (2009).

<sup>90</sup> DiGregorio (2009).

<sup>91</sup> Boustead Associates (2007) assumes that 1500 plastic bags have an equivalent carrying capacity of 1000 paper bags.

<sup>92</sup> ExcelPlas Australia (2004).

<sup>93</sup> Herrera et al. (2008).

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**Table 2: Comparison of Solid Waste System Costs Associated with Paper and Plastic Bags – Seattle and San Francisco (Herrera et al. 2008)**

<b>Cost</b>	<b>San Francisco (paper and plastic – 2.0% of waste stream)</b>	<b>Seattle (paper and plastic – 1.7% of waste stream)</b>	<b>Seattle (plastic only – 0.82% of waste stream)</b>
Processing Contamination Costs	\$694,000	\$561,837	\$561,837
Composting Contamination Costs	\$400,000	\$312,000	\$312,000
Collection and Disposal Costs	\$3,600,000	\$2,477,264	\$1,075,384
City Street Cleaning Costs	\$2,600,000	\$503,567	\$503,567
Future Landfill Liability Costs	\$1,200,000	\$173,491	\$0
<b>Total</b>	<b>\$8,494,000</b>	<b>\$4,028,160</b>	<b>\$2,452,788</b>
<b>Total per bag</b>	<b>\$0.17</b>	<b>\$0.11</b>	<b>\$0.08</b>
Street Cleaning Budget	\$26,000,000	\$3,767,892	\$3,767,892
Litter Control Budget	—	\$4,371,643	\$4,371,643

Reproduced from Herrera et al. (2008). Note that the per bag costs in San Francisco are overestimated because the total costs are divided by only 50,000,000 bags, instead of the larger total number of bags distributed in the city.

The City of Pasadena, California, spent approximately \$47,400 on clean-up of catch basins in 2008. In addition, the City spends approximately \$1.5 million annually for street sweeping. Approximately 12% of Pasadena's and the state's litter stream is plastic bags and other plastic films.<sup>94</sup> Consequently, a reduction in plastic bag litter would result in significant cost savings to the city.

<sup>94</sup> City of Los Angeles Staff Report (2009).

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Clean-up costs are region-specific. Therefore, the costs detailed above cannot be generalized across California. However, according to the City of Los Angeles Staff Report (2009), litter collection for beaches, state highways, cities, and counties cost California over \$300 million each year. Furthermore, the data demonstrate the substance of these costs for both plastic and paper bags. The comparison of Seattle's costs for paper and plastic and only plastic illustrate that, at least in that situation, plastic bags are responsible for the processing and composting contamination costs, whereas paper bags are responsible for the landfill liability costs.

#### **3.4.14. Recreation**

Beach litter and contamination of other recreational sites can negatively impact recreational experiences. Plastic debris accounts for a significant portion of beach litter and debris. The Ocean Conservancy documented results of the International Coastal Cleanup indicate that plastic bags are one of the top three items most frequently collected; the other two items are cigarette butts and food wrappers/containers.<sup>95</sup> In addition, the visual impact of bag litter detracts from people's perceptions of recreational water quality.<sup>96</sup> The combination of physical contamination of beach area and the perceived lower quality of coastal waters may negatively impact beach use and recreation.

Negative impacts on the beaches and other aspects of California's environment could impact tourism. As mentioned above, the State Water Resources Control Board (2010) suggests that the pre-production plastic discharges pose a threat to California's environment, which is an important part of California's \$46-billion dollar ocean dependent, tourism economy.

#### **3.4.15. Transportation/Traffic**

Transport of materials and bags adds to the total GHG emissions associated with the bag life cycle (see the air quality discussion above). However, a shift in bag use is unlikely to have any discernible effect on traffic at a local level. In anticipation of regulating the use of plastic bags within Palo Alto, the city determined that short-term additional truck trips needed to transport more paper bags would be approximately one additional truck trip within the city per day.<sup>97</sup> More research is needed to determine the precise number of additional truck trips that may be generated at a local level as a result of delivering new bags to grocery stores.

#### **3.4.16. Utility, Energy, and Service Systems**

This impact area is important from a broad perspective, because the energy associated with production and disposal of each bag type varies substantially. However, because energy needs are dependent on fuel source, material components, technology, and location (including transport), the following discussion of previous LCA results may have little direct local impact.

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<sup>95</sup> Ocean Conservancy (2009).

<sup>96</sup> UNEP (2009).

<sup>97</sup> City of Palo Alto (2009).

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Boustead Associates (2007) performed an LCA comparing a conventional polyethylene plastic bag, a compostable plastic bag, and a paper grocery bag made of at least 30% recycled content fibers. Based on a carrying capacity equivalent to 1000 paper bags,<sup>98</sup> the authors determined that conventional plastic bags consumed 763 megajoules (MJ) of energy in manufacture, while paper consumed 2622 MJ, and compostable plastic consumed 2070 MJ.<sup>99</sup> One MJ is the equivalent of approximately 0.278 kilowatts (e.g., 100 MJ equals 27.8 KW).

The Carrefour LCA, conducted by Ecobilan in 2004, compared HDPE plastic bags with reusable LDPE plastic bags and paper bags, assuming that all bags are landfilled at disposal. When used only once, reusable LDPE plastic bags require 2.8 times the nonrenewable primary energy consumption of HDPE plastic bags, while paper bags require 1.1 times the consumption. However, if a reusable LDPE bag is used 4 times, while an HDPE plastic bag is used once, the impact per reusable LDPE bag use is only 0.7 that of an HDPE plastic bag.<sup>100</sup> The Hyder Consulting study conducted in Australia found that annual energy savings per household associated with a shift from single-use to reusable bags could be greater than 190 MJ.<sup>101</sup>

The 1990 study conducted by Franklin Associates also looked at the energy requirements of plastic and paper bags. The study assumed a two-to-one ratio of HDPE plastic bag to paper bag use, and examined varying levels of recycling. At a zero percent recycling rate for both paper and plastic, the energy requirements for HDPE plastic bags were 20-40% less than for paper grocery bags. The energy requirements became equivalent at approximately 0% plastic recycling and 50% paper recycling, or at approximately a 90% recycling rate for both bags. Similarly, Fenton (1991) compared the results of five studies on grocery bags from 1974 to 1990 and determined that reusable bags are less energy-intensive than single-use bags, and that plastic single-use bags are less energy-intensive than paper bags.<sup>102</sup> Due to the age of both the Franklin Associates and Fenton studies, their results may not be relevant today as technology for both manufacture and disposal have changed significantly.

According to DiGregorio (2009), the use of Mirel bioplastic results in more than 95% less nonrenewable energy consumption than the use of petroleum-based plastics.<sup>103</sup> These findings corroborate those of Murphy (2004), which showed that significant energy savings result from the production of biodegradable polymers compared to petrochemical polymers in the cradle-to-factory-gate portion of the life cycle.<sup>104</sup>

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<sup>98</sup> Boustead Associates (2007) assumed that 1500 plastic bags would have an equivalent carrying capacity of 1000 paper bags.

<sup>99</sup> Boustead Associates (2007).

<sup>100</sup> Ecobilan (2004).

<sup>101</sup> Hyder Consulting (2007).

<sup>102</sup> Fenton (1991).

<sup>103</sup> Kim and Dale, 2008, as cited in DiGregorio (2009).

<sup>104</sup> Biodegradable polymers studied include: 100% thermoplastic starch, thermoplastic starch plus 60% polycaprolactone, and polylactic acid. Murphy (2004).

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### **3.4.17. Other Impact Areas**

#### **Hygiene**

Hygiene associated with reusable bag use has been raised as a concern by the plastic bag industry. Part of the appeal of plastic bags is their cleanliness. Once food has contaminated them, they are usually disposed of. Paper bags are not waterproof, so they are less effective at preventing food contamination of surfaces. However, like single-use plastic bags, they are usually disposed of once contaminated. In contrast, food residue on reusable bags may lead to the growth of mold or harbor bacteria, which in turn may come in contact with other foods. This concern is mostly associated with reusable plastic bags; reusable cloth bags – commonly used in California – are more durable and are routinely tossed into the laundry for cleaning.

The Environment and Plastics Industry Council (EPIC), a standing committee of the Canadian Plastics Industry Association, examined the cleanliness of reusable bags in Canada. The study tested 24 reusable plastic bags obtained from shoppers and ranging in age from 1 month to 3 years. Although not explicitly noted, it appears that none of the bags were cloth bags. An open question is whether the results of this study would be repeated if reusable cloth bags were tested. The plastic bags in this study were tested for 'total plate count', total coliforms, *Escherichia coli* (*E. coli*), *Salmonella*, mold, and yeast. Results suggest that a number of the tested bags had become breeding grounds for yeast and mold; 64% showed some level of bacterial contamination; almost 30% had bacterial counts higher than those considered safe for drinking water; mold was present in 6 of the bags; a few bags had an unacceptable total coliform count (these particular bags had been in use for from 1-3 years); but no *E. coli* or salmonella was present.<sup>105</sup> EPIC notes that although these bags in theory can be cleaned, it is difficult to thoroughly dry them without first encouraging microbial growth. Furthermore, their flimsiness deters scrubbing.

No studies were found that examine the hygiene of reusing single-use plastic bags. Anecdotal evidence indicates that single-use plastic bags are reused as domestic waste basket liners, as lunch bags or similar carrying functions, and as temporary containers for pet wastes collected during outdoor walks (then directly disposed of in the household garbage can). When a plastic bag that originally carried meat or other groceries that can leave residues that may lead to the growth of mold or harbor bacteria is subsequently used to carry food, there may be the potential for hygiene problems. However, the health effects of this use, if any, are unknown.

#### **Solid Waste**

Solid waste production from bag manufacture and disposal is generally considered higher for paper bags than for plastic bags. The Ecobilan study (2004) indicates that solid waste production is 2.7 times greater, by weight, for paper bags than for HDPE plastic bags.<sup>106</sup> Similarly, an LDPE plastic bag used only once creates 2.8 times, by weight, the solid waste of an HDPE plastic bag. When used at least twice, reusable bags created less solid waste per use than the single-use plastic, paper and biodegradable bags. However, these results

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<sup>105</sup> EPIC (2009).

<sup>106</sup> Ecobilan (2004).

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must be treated with caution, as the Ecobilan study assumes that all bags are landfilled at disposal. In reality, over 20% of paper bags are recycled (and many bags have significant post-consumer recycled paper content, as discussed earlier), which would reduce solid waste production significantly, while only about 5% of HDPE plastic bags are recycled. In fact, as noted above, some counties in California boast a paper bag recycling rate on the order of 60-80%.<sup>107</sup>

The Boustead Consulting study (2007) assumes that paper bags can hold the same quantity of groceries as 1.5 plastic bags, and suggests that the production of municipal solid waste associated with paper bags is almost 5 times that, by weight, of HDPE plastic bags. It concluded that compostable plastic bags produce almost 3 times the solid waste of HDPE plastic bags.

An earlier study by Franklin Associates (1990) reached similar findings, suggesting that plastic bags contribute 74-80% less solid waste, by weight, than paper grocery bags at zero percent recycling, and the landfill volume occupied by plastic bags is 70-80% less than the volume occupied by paper bags, assuming equivalent uses.<sup>108</sup> In this study, solid waste includes ash from energy generation and incineration and post-consumer solid wastes. Franklin Associates' landfill volume estimates do not reflect the higher rate of recycling paper than plastic bags.

### ***3.4.18. General Bag Comparisons***

A few LCAs or studies that reviewed previous LCAs provided comparisons of bags that are more easily summarized by study rather than by impact area.

Patel et al (2003) reviews twenty LCAs using a functional unit of 1 kg of bag material. The report examines non-renewable energy, GHG emissions, ozone precursors, acidification, and eutrophication. The authors conclude that in spite of some uncertainties and information gaps, the LCAs indicate that biodegradable polymers can "make significant contributions to reducing environmental impacts and contribute to sustainability compared to their petrochemical alternatives." When composting is used as the waste management alternative, this is especially true. Starch polymers performed better than other bio-based polymers and natural fibers under available technologies.<sup>109</sup>

Cadman et al (2005) analyzed the impacts of plastic, paper, and reusable bags in Scotland. Results indicated that either switching away from plastic or switching away from both plastic and paper single-use bags would decrease consumption of non-renewable energy, atmospheric acidification, and ground level ozone formation. In addition to these benefits, switching away from both plastic and paper will also result in reduced water consumption, GHG emissions, and water eutrophication.<sup>110</sup>

Novamont performed an LCA based in Switzerland, comparing the environmental impacts of disposable bags made of Mater-Bi with typical disposable paper and HDPE plastic bags.

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<sup>107</sup> StopWaste. 2010. Comments on MEA draft.

<sup>108</sup> Franklin Associates. 1990. Life Cycle Assessment of Paper and Plastic Bags. As reported in FRIDGE (2002).

<sup>109</sup> Patel et al. (2003).

<sup>110</sup> Cadman et al. (2005).



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Using a functional unit of a single bag, the study concluded that paper bags consume much more energy than corresponding bags made of Mater-Bi or PE because of their greater weight. In addition, when organic waste is composted, the bag containing the waste often is composted with the waste. If non-compostable plastic bags are used in this role, any organic waste stuck to these bags will not be composted. If this impact is considered, Mater-Bi bags are environmentally superior to HDPE plastic bags. Impact categories considered in this full LCA include energy consumption, GHG emissions, acidification, nitrification, ozone formation; toxicity in air and water, salification, and waste production:

Because this LCA is based in Switzerland, it is not directly relevant to bag use in California. In addition, a comparison of bags using a functional unit of one bag can be misleading, as bags made of different materials have different sizes, material use, and carrying capacity.

## **4. Effects of Policy Options on Bag Consumption**

The consumption of grocery bags can be influenced by different policy options, which can take form as economic instruments (e.g., fees, taxes, rebates), regulations (e.g., bans), or social marketing campaigns (e.g., education). These policy options have been implemented in regions throughout the developing and developed world. Educational efforts include informing consumers about the environmental impacts associated with single-use bags, encouraging a switch to reusables through increased availability, and instructing baggers to use fewer bags for a given quantity of groceries. However, Herrera et al. (2008) opines that although education may result in some shifts in consumer behavior, those changes will be minor unless accompanied by a fee or ban.<sup>111</sup>

In California, AB 2449 restricts the ability of municipalities to impose a fee on single-use plastic bags. So, with limited exceptions, a fee is not a feasible option for California cities and counties seeking to limit single-use plastic bags, although placing fees on other single-use bags is an option. Fees have been used in a number of places outside of California, and some of their general experiences are related below.

Any fee placed on the bags must be large enough to influence consumer choices, while remaining politically acceptable. A minimal fee of 0.7 cents per bag in Italy had little or no effect on consumer behavior.<sup>112</sup> At the same time, a survey of Seattle consumers found that 70% of respondents stated that they would be unwilling to pay a fee of more than 10 cents per bag (and thereafter overturned the City's bag fee).<sup>113</sup> Education, though not sufficient by itself, is a necessary component of any economic instrument aimed to reduce bag consumption.<sup>114</sup> Many UK retailers have experimented with varying fees per bag. IKEA found that a 10 pence (~ 15 US cents in 2010) charge on all single-use bags resulted in a

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<sup>111</sup> Herrera et al. (2008).

<sup>112</sup> Herrera et al. (2008).

<sup>113</sup> Herrera et al. (2008).

<sup>114</sup> Herrera et al. (2008).

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95% drop in consumption, whereas Marks & Spencer realized an 80% drop in consumption after implementing a 5 pence (~ 7 US cents in 2010) charge.<sup>115</sup>

In addition, a number of countries have implemented industry voluntary programs to reduce plastic bag consumption. For instance, the Australian Retailers' Association developed a Code of Practice for the Management of Plastic Bags in 2003, which aimed to reduce plastic bag use by 50% in 2005. This program has been somewhat successful, as Australian plastic bag use dropped 34.2% from 2002 to 2005.<sup>116</sup> Similarly, the UK recently developed its own industry partnership which has successfully reduced the environmental impact of carrier bags by 40% since 2006, as of February 2009.<sup>117</sup> This MEA summarizes the conclusions from existing studies that evaluated the effects of fees and bans on single-use grocery bags.

The underlying principle for reducing the consumption of single-use bags is that doing so will also reduce the negative externalities to society that result from single-use bags. Externalities occur when the market does not consider the impacts of an economic activity on society. In the case of single-use bags, negative externalities include the environmental impacts associated with their manufacturing and end-of-life fate. The use of fees or bans can reduce those environmental impacts by reducing the use of these bags.

Multiple economic and environmental assessments of fees and bans have been published over the years and are useful in the current analysis. However, each study is region- and year- specific. For example, a study conducted ten years ago would likely assume a greater shift from plastic bags to paper bags, whereas a more recent study would likely predict a shift from plastic to some paper but also largely to reusable bags. Similarly, biodegradable bags are more widely available now than in years past. Finally, since consumer education plays a large role in the success of these policy measures, the geographic location of each study is important.

## 4.1. Economic Instruments

Ideally any discussion of economic instruments, fees being one of them, needs to be evaluated in a local context, since local variables such as income, age, educational attainment, and ethnic background could have a strong effect on how economic instruments affect the consumption of single-use bags.

Studies evaluating the effects of fees on the consumption of single-use bags take either a qualitative or quantitative approach. Qualitative studies focus on the general effectiveness of fees, and sometimes on best practices to set the level of a fee accordingly, the way it should be implemented and marketed, or on the unintended consequences of fees such as increased consumption of other types of bags or equity concerns. Quantitative studies typically rely on the price elasticity of demand, which is the ratio between the percentage change of quantity demanded by the percentage change in price of a given commodity.

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<sup>115</sup> AEA Technology (2009).

<sup>116</sup> Hyder Consulting (2006).

<sup>117</sup> AEA Technology (2009).

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#### **4.1.1. Republic of Ireland**

Ireland introduced a point-of-sale levy on plastic shopping bags in 2002, although the levy does not apply smaller produce bags. Stores were required to charge customers approximately 21 US cents per bag, itemized on the bill. Interestingly, this levy was set much higher than the expected maximum willingness to pay.<sup>118</sup> This "PlasTax" is meant to fund waste management and anti-litter programs, and public education is an important component of this effort.<sup>119</sup> Since the tax's enactment, there has been a greater than 90% reduction in retailer purchases of plastic bags, a substantial increase in the sale of reusable bags, reduced littering and improved landscape effects.<sup>120</sup> Before the tax was implemented, plastic bag litter accounted for 5% of national litter composition. In 2003, that percent fell to 0.32%, and in 2004, it was 0.22%.<sup>121</sup> The use of garbage bags has increased but not on a scale comparable to the decrease in shopping bags. The levy has been embraced by consumers, retailers, and government, and entails minimal administrative costs. In fact, associated costs amount to approximately 3% of revenues.<sup>122</sup> In recent years, use of plastic bags has crept up slowly, as indicated by larger tax receipts (up 46% since 2003). To control the increasing use of plastic bags, the Irish government increased the levy from approximately 21 to 31 US cents.<sup>123</sup> Even with the slight rise in plastic bag usage in 2006, overall use is still far lower than pre-levy (91% below pre-levy levels).<sup>124</sup>

#### **4.1.2. Australia**

In Australia, plastic bag usage has been an important issue since 2002. No nationwide system has been adopted, although a number of policies have been proposed. For instance, Victoria proposed a trial 10 cent levy on HDPE bags and South Australia proposed a ban on thin HDPE bags. The trial levy had immediate positive effects, with a 79% reduction in plastic bag use.

#### **4.1.3. Scotland**

In Scotland, a bill similar to the Irish PlasTax was introduced in 2005 but eventually withdrawn in 2006. Cadman et al. (2005) conducted an extended impact assessment of the proposed tax, and found that a levy of 10 pence (~15 US cents in 2010) on plastic and paper bags would result in a 90% reduction in plastic bag usage with some shift to paper bags. Without a similar tax on paper bags, there would be a slight increase in waste, assuming a 25% increase in paper bag usage. However, McDonnell and Convery (2008) point out that the assumption of a significant shift from plastic to paper bags is undocumented and seems unreasonable given the Irish experience.<sup>125</sup> Other assumptions about future job losses as a result of reduced plastic bag manufacture run contrary to the

<sup>118</sup> McDonnell and Convery (2008).

<sup>119</sup> Convery et al. (2006).

<sup>120</sup> McDonnell and Convery (2008).

<sup>121</sup> McDonnell and Convery (2008).

<sup>122</sup> McDonnell and Convery (2008).

<sup>123</sup> McDonnell and Convery (2008).

<sup>124</sup> McDonnell and Convery (2008).

<sup>125</sup> McDonnell and Convery (2008).

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Irish experience as well.<sup>126</sup> Friends of the Earth (2006) also disagreed with the results of the Cadman et al (2005) study.<sup>127</sup> They argued that the study did not adequately consider the effect of behavior change that would result in greater reuse of bags. They also pointed to the rate of substitution of paper bags and concluded that in fact a levy would produce a net and quantifiable environmental benefit, similar to the Irish experience.<sup>128</sup> Both McDonnell and Convery (2008) and Friends of the Earth (2006) suggest that the Irish experience should be relied upon more to predict the impacts of a fee in Scotland; in particular, Ireland's result of a limited switch from plastic to paper.<sup>129</sup>

#### **4.1.4. South Africa**

South Africa has placed a modest levy on the manufacturers of plastic bags and banned bags below a certain thickness.<sup>130</sup> Revenue is passed to an organization that emphasizes plastic bag recycling. Consumers pay the levy at each purchase, as it is itemized in their bills. In theory, this measure reduces litter while avoiding job loss from reduced plastic bag manufacture.

#### **4.1.5. United States**

Seattle, Washington's City Council adopted a 20 cent fee on paper and plastic shopping bags in August, 2008. The purpose of the fee was to reduce use of single-use grocery bags and the associated litter. The fee was subsequently rejected by voters in a referendum in February 2009 and did not take effect.

In addition, the City Council of Washington, D.C. voted unanimously in June, 2009, to ban the use of single-use non-recyclable plastic retail bags and establish a five cent fee for all other single-use bags. The fee and ban went into effect on January 1, 2010.

Within California, many cities and counties have considered implementing fees on single-use bags. San Francisco enacted an ordinance in 2004 requiring a 17 cent fee on each plastic grocery bag provided at supermarket. However, this resolution was nullified by AB 2449. In response, San Francisco banned HDPE plastic bags in 2007. Herrera et al. (2008) noted the fee's benefits of litter reduction, reduced threats to marine life, and significant climate benefits. Cons of the measure include industry opposition from the California Grocers Association and the American Plastics Council, costs are passed on to the consumers, the measure's incompatibility with the existing recycling programs, potential effects on customer convenience, and the possibility of transferring business to surrounding communities.

#### **4.1.6. Lessons for California**

Many lessons applicable to California can be taken from these policy measures. Fees can be introduced upstream (to producers, etc), or downstream (to consumers). Although the

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<sup>126</sup> McDonnell and Convery (2008).

<sup>127</sup> Friends of the Earth (2006).

<sup>128</sup> Friends of the Earth (2006).

<sup>129</sup> Friends of the Earth (2006).

<sup>130</sup> Herrera et al (2008); McDonnell and Convery (2008).

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former are easier to implement, they are less effective at reducing plastic bag consumption, as they do not directly address consumer behavior.<sup>131</sup> Rather, consumers should be aware of the additional fees per bag so that they will change their behavior.<sup>132</sup> Fees that are directly passed onto consumers have been effective at altering behavior.<sup>133</sup> However, if these fees apply only to one type of bag, they will likely lead consumers to switch to other disposable bags or more prepackaged goods.<sup>134</sup>

In California, due to AB 2449 no fee can be placed on single-use HDPE plastic grocery bags. Examples of plastic bag fees therefore have limited relevance. However, an agency could legally implement a fee on other single-use bags. Consequently, studies of the efficacy of this economic instrument may still be qualitatively relevant to California.

Multiple studies have assessed the value of fees on single-use bags. Herrera et al. (2008) was undertaken for the City of Seattle to examine a range of policy options to reduce disposable grocery bag use, may be the most relevant to California. This study examined the 30-year impact of multiple policy options for reducing disposable shopping bag use, including enhanced education, a combination of education and ban on disposable plastic shopping bags, education and a mandatory advanced recovery fee of approximately 10-25 cents on disposable plastic shopping bags, and education and an advanced recovery fee of approximately 10-25 cents on all disposable shopping bags. The study assumed that education efforts alone would only result in a 5% shift away from plastic bags. A 15 cent fee on plastic bags would result in a shift from 100% plastic bags to 35% plastic bags, 21% paper, and 37% reusable bags, with a 7% reduction in bag use. Finally, a fee on both paper and plastic would shift bag use from 100% plastic to 35% plastic, 0% paper 52% reusable bags, and a 13% reduction in bag use.<sup>135</sup>

The Herrera study suggests that all three regulatory options would result in significant environmental benefits. A ban on plastic would result in more than 60% reductions of impacts to litter aesthetics and marine diversity, and significantly reduced environmental impacts from non-renewable energy, GHG emissions, resource depletion, and shopping bag waste.<sup>136</sup> However, eutrophication would increase slightly. A fee placed on plastic or plastic and paper bags would result in a 50% reduction in impacts of litter aesthetics and marine diversity. Although both scenarios would result in other significant environmental benefits, the fee on both plastic and paper would lead to greater than 50% reductions in non-renewable energy, GHG Emissions, resource depletion, eutrophication, and shopping bag waste generation.

The Herrera study also evaluated the economic impact of these options. A fee on plastic bags would result in costs to consumers and the region, while the City and retailers would experience gains. A fee on all disposable shopping bags would result in slightly lower costs

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<sup>131</sup> Herrera et al. (2008); McDonnell and Convery (2008).

<sup>132</sup> Herrera et al. (2008).

<sup>133</sup> Herrera et al. (2008). ExcelPlas Australia (2004).

<sup>134</sup> GHK (2007), as reported in Herrera et al. (2008).

<sup>135</sup> Herrera et al. (2008).

<sup>136</sup> Herrera et al. (2008).

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to consumers due to increased use of reusable bags, significantly higher costs to the region due to decreased paper production, and gains for both the City and retailers.<sup>137</sup>

## 4.2. Ban Options

Bans, like economic instruments, are ideally evaluated in a local context since local variables such as demographics and economic and social environments could have a strong effect on how consumers respond to bans.

Banning one type of bag may not simply decrease the consumption of that bag type. Rather, consumers will likely switch to other types of bags to carry their groceries. A major consideration of plastic bag bans is that consumers will switch to paper bags, which have a greater environmental impact in multiple areas. Although such a ban would directly reduce the litter problem associated with plastic single-use bags, it could intensify other environmental impacts.

Worldwide, a few countries and regions have implemented various types of bans on single-use grocery bags. For instance, Bangladesh introduced a ban on the manufacture and use of plastic bags in 2002.<sup>138</sup> In Tasmania, the town of Coles Bay has banned the use of plastic bags in all retail outlets, including supermarkets, since 2003, and received widespread support.<sup>139</sup> The government of South Australia recently banned all lightweight checkout plastic bags, in effect as of May, 2009.<sup>140</sup> Perceived impacts of the ban include reduced litter and/or landfill, saved resources, and reduced negative impacts on waterways and marine life.<sup>141</sup>

Many cities within California have already prepared bans on plastic grocery bags. Only three, however, have implemented those bans. The City and County of San Francisco implemented a ban on plastic grocery bags in 2007. No comprehensive studies have been conducted to determine the ban's efficacy, however. In addition, the voters of the Town of Fairfax in Marin County enacted a ballot initiative in May 2009 that bans the use of plastic bags at retail stores and restaurants. And in July 2009, the City of Palo Alto settled out of court by agreeing not to expand their plastic bag ban beyond grocery stores until they have prepared an Environmental Impact Report.

All other bans proposed by cities have resulted in legal challenges over their potential environmental effects and have not been implemented.<sup>142</sup>

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<sup>137</sup> Costs were calculated over a 30 year time frame, using a 3% discount rate.

<sup>138</sup> HDR Engineering, Inc. (2008).

<sup>139</sup> <http://plasticbags.planetark.org/case-studies/colesbay.cfm>

<sup>140</sup> <http://www.byobags.com.au/About.mvc/RetailerWhatToDo/82>

<sup>141</sup> Ehrenberg-Bass (2009).

<sup>142</sup> These jurisdictions, in which single-use bag ordinances have been developed but not implemented due to legal challenges or the threat of challenges, include: Berkeley, City of Los Angeles, Los Angeles County, Malibu, Manhattan Beach, Oakland, San Diego, San Jose, Santa Monica, and Santa Clara County.

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**Appendix B. CEQA Guidelines MEA Provisions**

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## Appendix B. CEQA Guidelines MEA Provisions

CEQA Guidelines Section 15169 establishes the broad requirements for the content and preparation of MEAs. The provisions of this section are as follows:

(a) General. A public agency may prepare an MEA, inventory, or database for all, or a portion of, the territory subject to its control in order to provide information which may be used or referenced in EIRs or Negative Declarations. Neither the content, the format, nor the procedures to be used to develop an MEA are prescribed by these Guidelines. The descriptions contained in this section are advisory. An MEA is suggested solely as an approach to identify and organize environmental information for a region or area of the state.

(b) Contents. An MEA may contain an inventory of the physical and biological characteristics of the area for which it is prepared and may contain such additional data and information as the public agency determines is useful or necessary to describe environmental characteristics of the area. It may include identification of existing levels of quality and supply of air and water, capacities and levels of use of existing services and facilities, and generalized incremental effects of different categories of development projects by type, scale, and location.

(c) Preparation

1. An MEA or inventory may be prepared in many possible ways. For example, an MEA may be prepared as a special, comprehensive study of the area involved, as part of the EIR on a general plan, or as a database accumulated by indexing EIRs prepared for individual projects or programs in the area involved;
2. The information contained in an MEA should be reviewed periodically and revised as needed so that it is accurate and current;
3. When advantageous to do so, MEAs may be prepared through a joint exercise of powers agreement with neighboring local agencies or with the assistance of the appropriate Council of Governments.

(d) Uses

1. An MEA can identify the environmental characteristics and constraints of an area. This information can be used to influence the design and location of individual projects;
2. An MEA may provide information agencies can use in initial studies to decide whether certain environmental effects are likely to occur and whether certain effects will be significant;
3. An MEA can provide a central source of current information for use in preparing individual EIRs and Negative Declarations;
4. Relevant portions of an MEA can be referenced and summarized in EIRs and Negative Declarations;

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**Appendix B. CEQA Guidelines MEA Provisions**

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5. An MEA can assist in identifying long range, areawide, and cumulative impacts of individual projects proposed in the area covered by the assessment;
6. An MEA can assist a city or county in formulating a general plan or any element of such a plan by identifying environmental characteristics and constraints that need to be addressed in the general plan;
7. An MEA can serve as a reference document to assist public agencies which review other environmental documents dealing with activities in the area covered by the assessment. The public agency preparing the assessment should forward a completed copy to each agency which will review projects in the area.

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**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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## Appendix C. Detailed Description of Referenced Life-Cycle Analyses

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**Franklin and Associates, Ltd. 1990. Resource and Environmental Profile. Analysis of Polyethylene and Unbleached Paper Grocery Sacks. Franklin Associates, Prairie Village, Kansas, 1990.**

This cradle-to-grave LCA compares the environmental impacts of the production, use, and disposal of plastic and paper bags. Indicators examined include: energy, solid waste emissions, atmospheric emissions, and waterborne wastes. Volume and weight capacity were incorporated into the study (comparing two plastic bags to one paper), as were varying degrees of recycling rates. The bag preference was dependent on rates of recycling of each type of bag. Paper bags create significantly higher waterborne waste and atmospheric waste. Increasing recycling rates of both plastic and paper bags would reduce the energy difference between the production of the two types of bags because the recycling energy savings occur at a greater rate for paper than for polyethylene. Reducing the 2-to-1 ratio of number of plastic bags to number of paper bags used would increase the energy savings for plastic bags."

Functional unit: 10,000 bags

Limitations: The age of this study limits its relevance as technology, alternative types of bags, environmental data, raw material and energy sources, consumer practices and disposal routes have changed significantly.

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**Fenton, R. 1991. The Winnipeg Packaging Project: Comparison of Grocery Bags. Department of Economics, University of Winnipeg, Manitoba, Canada. 1991.**

This report compares five studies on grocery bags between 1974 and 1990, comparing reuse, recycling, and disposal for four different types of bags (permanent, multi-trip, plastic single-use, and paper single-use). The study compares the energy intensity of bags, and concludes that reusing grocery bags is the least energy-intensive alternative: reuse reduces the energy-intensity per trip more than recycling. Among the single-use bags, plastic bags are less energy-intensive than paper bags, as validated by five reports compared in this analysis.

Functional unit: 1 million "bag units" (23,000,000 liters of goods)

Limitations: Similar to the Franklin Associates (1990) study, this LCA has limited relevance due to its age.

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**Master Environmental Assessment on Single-Use and Reusable Bags**  
**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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**Fund for Research into Industrial Development, Growth and Equity (FRIDGE). [2002]. "Socio-Economic Impact of the Proposed Plastic Bag Regulations."**

This study compares the Franklin Associates (1990) LCA and an Independent Swedish Environmental Consulting Group 2000 study, and provides a detailed review of the Franklin Associates LCA.

Limitations: This study has limited relevance because of its focus on South Africa, age, and heavy reliance on the Swedish report, which examined paper and plastic animal feed distribution sacks in Europe.

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**Environment Australia. 2002. Plastic Shopping Bags – Analysis of Levies and Environmental Impacts. Prepared by NOLAN-ITU Pty. Ltd.**

This study reviews tax and levy systems in other countries, provides a full streamlined LCA, and conducts a triple bottom line assessment. The analysis examines disposable HDPE shopping bags, disposable 50% recycled HDPE shopping bags, boutique LDPE shopping bags, Coles Calico shopping bags, woven HDPE reusable shopping bags, reusable polypropylene (PP) fiber shopping bags, disposable kraft paper shopping bags, reusable solid PP smart boxes, reusable LDPE shopping bags, biodegradable starch-based shopping bags, and biodegradable PE shopping bags with prodegradant additives. Indicators assessed include: material consumption, litter, GHG emissions, and primary energy use. The study concludes that a shift from disposable plastic to reusable bags would result in the greatest environmental benefits. The reusable heavy duty plastic bags resulted in the largest benefits.

Functional unit: The number of bags necessary for a household to carry approximately 70 grocery items home from a supermarket each week for 52 weeks.

Limitations: The study examines litter caused by disposable plastic bags, but there is no data to discuss other environmental issues such as acidification, eutrophication, ozone, or human toxicity. The results of the study are dependent on the particular reuse and disposal assumptions made within the analysis.

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**Master Environmental Assessment on Single-Use and Reusable Bags**  
**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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**Patel, M., C. Bastioli, K. Marini, E. Wurdinger. 2003. Environmental Assessment of Bio-Based Polymers and Natural Fibres.**

This report reviews twenty LCAs and examines various bio-based polymers and natural fibers using the following indicators: non-renewable energy, GHG emissions, ozone precursors, acidification, and eutrophication. The study concludes that use of biodegradable polymers can significantly reduce environmental impacts associated with bag production, use, and disposal, particularly when composting is the disposal option. Starch polymers had the best results in terms of the environmental indicators mentioned above, under current technology.

Functional unit: 1 kg of material

Limitations: Age of the study limits its relevance.

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**ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. The Impacts of Degradable Plastic Bags in Australia.**

This report expands on the earlier Environment Australia report (2002), placing added emphasis on marine litter impacts. The report concludes that reusable bags have lower environmental impacts than all of the single-use bags. Degradable bags have similar GHG impacts to conventional HDPE bags, and may create much higher eutrophication from farming activity. Conventional HDPE bags result in greater abiotic depletion. Benefits of degradable bags lie in their faster degradation in the litter. However, these rates are still unclear.

Functional unit: The number of bags necessary for a household to carry approximately 70 grocery items home from a supermarket each week for 52 weeks.

Limitations: The results of the study are dependent on the particular reuse and disposal assumptions and bag weight and relative capacity assumptions made within the analysis.

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**Master Environmental Assessment on Single-Use and Reusable Bags**  
**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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**Ecobilan. 2004. Environmental impact assessment of Carrefour bags.**  
**Report prepared for Carrefour by Ecobilan, February 2004.**

This study focuses on disposable polyethylene shopping bags, disposable paper shopping bags, disposable biodegradable bags, and a reusable PE bag. The report concludes that for all indicators, reusable PE bags are better than single-use bags, if used at least four times. Single-use PE bags are better than other single-use bags in all environmental impact areas except for littering. Paper bags consume about the same amount of energy, create similar amounts of photochemical oxidants, consume three times the amount of water, create 90% more GHG emissions, create 80% more nitrogen oxide and sulfur dioxide emissions, create twelve times the level of eutrophication, and result in 80% more solid waste. However, in the litter category, paper bags performed better than plastic HDPE bags.

Functional unit: 9,000 liters of goods, estimated to be a typical annual purchase volume in France.

Limitations: This study is particular to French stores. Therefore, assumptions about travel distance, fuel type, technology use, bag demand and disposal choices may limit its relevance to California.

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**EuroCommerce. 2004. The use of LCAs on plastic bags in an IPP context.**  
**Prepared by C. Marlet. September 2004.**

This report provides a detailed review of Ecobilan (2004), Environment Australia (2002), Ireland Consultancy Study (1999), Mater-Bi Bags LCA (1996), and Franklin Associates (1990). Based on this review, the study concludes that significant environmental benefits can be achieved by switching from single-use plastic bags to more durable reusable bags, particularly those with a long usable life. Little or negative gain would be derived from a switch from plastic single-use bags to biodegradable or paper bags, with "potential litter gains offset by negative resource use, energy and greenhouse outcomes."

Functional unit: NA.

Limitations: This report's relevance lies in its comprehensive review of previous studies.

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**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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**Cadman, J., S. Evans, M. Holland, and R. Boyd. 2005. Proposed Plastic Bag Levy – Extended Impact Assessment Final Report. Prepared for Scottish Executive 2005.**

This study provides an LCA to evaluate the impacts of a proposed plastic bag levy in Scotland. Using information from the Ireland 'PlasTax' and the experience in Australia, the report examines four levy scenarios. The analysis concludes that there would be an environmental benefit for some of the indicators depending on consumer choice of plastic bag alternatives. In all scenarios where the levy is applied (just on plastic bags or on both plastic and paper bags), consumption of non-renewable energy, atmospheric acidification and formation of ground level ozone, and the risk of litter would be considerably less than the current situation. Higher environmental benefits are realized when the levy applies to both paper and plastic; in addition there are reduced impacts in terms of consumption of water, emissions of GHGs, and eutrophication of water bodies. A switch to paper bags could result in an increase in solid waste generation.

Functional unit: This report looks at the number of bags required per year, estimating individual bag weight so that each bag has an equal carrying capacity.

Limitations: The results of the study are dependent on the particular reuse and disposal assumptions and bag weight and relative capacity assumptions made within the analysis.

**James and Grant. 2005. LCA of compostable plastic bags. Centre for Design, Melbourne Institute of Technology.**

This report expands on ExcelPlas (2004), examining the environmental impacts of the various types of degradable bags compared to conventional alternatives. The report presents background information on the types of degradable polymers, and summarizes the results of the ExcelPlas (2004) streamlined LCA that compared degradable polymers and alternative materials such as HDPE, LDPE, kraft paper, and calico. Indicators examined include: material consumption, GHG emissions, abiotic depletion, eutrophication, litter marine biodiversity impacts, and litter aesthetics impacts for twelve different bags. The woven HDPE bag results in the lowest litter marine biodiversity and litter aesthetics impacts, although the non-woven plastic durable bag has the greatest environmental benefits overall.

Functional unit: The number of bags necessary for a household to carry approximately 70 grocery items home from a supermarket each week for 52 weeks.

Limitations: The results of the study are dependent on the particular reuse and disposal assumptions and bag weight and relative capacity assumptions made within the analysis.

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**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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**The ULS Report. 2007. Review of Life Cycle Data Relating to Disposable Compostable Biodegradable, and Reusable Grocery Bags.**

This study reviews three previous LCAs, including, Ecobilan (2004), Boustead (2005), and Life Cycle Inventories for Packaging (1998). The report compares degradable polymers with conventional HDPE bags, paper bags, reusable plastic bags, and calico bags, and concludes that reusable bags have lower environmental impacts than all of the single-use bags. Degradable bags may reduce the visual impact of litter, but could interfere with plastic recycling. In sum, it is important to find ways to reduce the use of both plastic and paper single-use bags.

Functional unit: Not stated.

Limitations: The results of the study are dependent on assumptions based on European manufacturing data, which may not be relevant in California. In addition, limited documentation limits the credibility of the report.

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**Hyder Consulting. 2007. Comparison of existing life cycle analyses of plastic bag alternatives.**

This study includes a streamlined LCA that is based on existing LCA data. It compares the environmental impacts of various shopping bag alternatives in Australia, including single-use plastic, paper and degradable bags, as well as reusable bags made of plastic and cloth. Indicators examined include: material consumption, GHG emissions, energy consumption, water use, litter marine biodiversity, and litter aesthetics. The report concludes that a substantial shift to more durable bags would deliver environmental gains through reductions in GHG emissions, energy and water use, resource depletion, and litter. The reusable, non-woven plastic 'Green Bag' achieves the greatest environmental benefits. No single-use bag is clearly a better environmental choice than any other, as benefits in one area are outweighed by greater impacts in another area. Finally, the end-of-life destination of these bags is important, as greater environmental savings are realized from recycling all bags.

Functional unit: The number of bags necessary for a household to carry approximately 70 grocery items home from a supermarket each week for 52 weeks.

Limitations: The results of the study are dependent on the particular reuse and disposal assumptions and bag weight and relative capacity assumptions made within the analysis.

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**Master Environmental Assessment on Single-Use and Reusable Bags**  
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**Boustead Consulting and Associates Ltd. 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper. Prepared for the Progressive Bag Alliance.**

This LCA examines three types of grocery bags: a traditional grocery bag made from polyethylene, a grocery bag made from compostable plastics (65% EcoFlex, 10% PLA, 25% CaCO<sub>3</sub>), and a paper grocery bag made using at least 30% recycled fibers. Every step of the manufacturing, distribution, and disposal stages is included in the analysis. The study found that polyethylene grocery bags use less energy in terms of fuels for manufacturing, less oil, and less potable water than paper bags. In addition, PE plastic grocery bags emit fewer GHG and acid rain emissions, and less solid waste. The same trend exists when comparing the typical PE grocery bag to grocery bags made with compostable plastic resins.

Functional unit: The capacity of the grocery bag to carry consumer purchases, assuming both a 1:1 and 1:1.5 paper-to-plastic carrying capacity.

Limitations: The results of the study are dependent on the particular reuse and disposal assumptions and bag weight and relative capacity assumptions made within the analysis. That said, the disposal assumptions are based on 2005 U.S. EPA data, and may closely reflect the situation in California. Assessment of bags on a 1:1 and 1:1.5 paper-to-plastic carrying capacity is questionable, as other studies have assumed that paper can hold many more items than plastic.

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**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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**Herrera et al. 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for Seattle Public Utilities. January 2008.**

This report provides the city of Seattle with relevant information to inform policies being developed for disposable shopping bags. The report concludes that actions analyzed within the study will likely reduce environmentally adverse and socially undesirable implication of disposable plastics. The report provides a detailed summary of the major LCAs and synthesizes them to analyze the situation for Seattle. Conclusions include:

- Disposable plastic bags are a significant source of litter and affect both terrestrial and marine wildlife;
- Use of reusable bags instead of disposable shopping bags of all kinds provides substantial environmental benefits, and reduces unintended environmental impacts, including litter;
- All education on disposable shopping bag use should emphasize that no bag or an existing reusable bag is the preferred option, followed by a new reusable bag used for as long as possible, and finally recyclable plastic and paper bags reused often and then deposited in curbside or in-store recycling facilities;
- The use of biodegradable shopping bags may not lessen littering (ie, lightweight, disposable), but may degrade faster in the marine environment, lessening impacts. Their shorter persistence in the environment still has the potential to harm the marine ecosystem;
- The presence of biodegradable bags in the recycling stream could potentially jeopardize Seattle's plastic bag recycling program through contamination. Furthermore, any additional presence of petroleum plastic bags in the Cedar Grove composting system could also harm Seattle's composting program; experience and stakeholder input suggests that any strategy implemented for disposable shopping bags should address all disposable shopping bags (of all materials) at all retail outlets that provide them;
- The "free" status of disposable shopping bags provides no incentive for consumers to reduce their use; experience has shown that consumption of disposable bags will be reduced substantially at modest prices paid by the consumer (ACG 2006). A fee on all disposable shopping bags provides the most environmental gains (except for litter), and provides for much higher overall economic gains when compared to all strategies. With a fee on all bags, consumers experience slightly less costs than with a plastic only ARF (due to an anticipated increase in the use of reusable bags), and the region experiences additional economic cost (due to decreased paper production). Again, the City and potentially retailers both benefit from revenue under either a plastic only or all-bag fee.

Functional unit: Various, depending on the LCA reviewed.

Limitations: The results of the study are particular to Seattle. However, these results may be similar to those in California.

**Master Environmental Assessment on Single-Use and Reusable Bags**  
**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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**AEA Technology. 2009. Single Use Bag Study. Final report prepared for the Welsh Assembly Government August 2009.**

This report reviews various reasons put forward for and against taking further action to control single use carrier bags. On balance it is concluded that there is a good logic and evidence for progressing with action to reduce bag use beyond the ambition level set by the existing voluntary agreement in the UK. The study also reviewed measures applied both in the UK and internationally, including outright banning plastic carrier bags, voluntary reduction schemes, public awareness raising. The Irish legislation, introducing a 0.15 pence charge per plastic bag offers a particularly attractive model. Finally, this study reviews previous LCAs and analyzes various environmental impacts of plastic bag use.

Functional unit: Various, depending on the LCA reviewed.

Limitations: This is the most recent LCA study. However, since it is based in the UK, it may have limited relevance to California.

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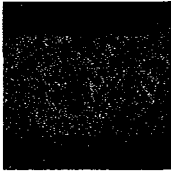
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**Appendix C. Detailed Description of Referenced Life-Cycle Analyses**

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# Strelow Consulting

Environmental Planning & Analysis

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OCT 29 2012

CITY OF CAPITOLA

## TRANSMITTAL

Date: 10-26-12  Via Fax: \_\_\_\_\_ pages  
 Original Mailed

To: Lisa Murphy  As Requested  
City of Capitola  For Your Information  
 For Review and Comment  
 Return of Loaned Documents  
Project Name: Bag Ord  Please Return

Copies	Description

Remarks: Hi Lisa - Please add the attachments to the Initial Study - Neg Dec file as references used:

- Cal Recycle - Recycling Rates
- U.S. EPA Solid Waste Facts 2010
- Green Cities - Background Info
- CAW - Bottle Bill Info
  - Bag Ordinances Taking Effect
  - SF Lawsuit
  - Summary Local Ordinances
- LA County Public Works Announcement on Bag Use
- Proposed AB 290

By: Stephanie cc: \_\_\_\_\_





## At-Store Recycling Program

# 2009 Statewide Recycling Rate for Plastic Carryout Bags

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Reporting period: Jan. 1, 2009-Dec. 31, 2009

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## Summary

The 2009 statewide recycling rate for regulated plastic carryout bags is about 3 percent. During this reporting period, regulated stores (defined below) purchased about 53,000 tons of regulated plastic carryout bags and collected just over 1,500 tons of these bags for recycling. The recycling rate was calculated by dividing the total amount of regulated bags collected for recycling by the total amount purchased.

The recycling rate calculation is based on data from the annual reports submitted by regulated stores as modified by the results of the California State University at Sacramento's "2010 Characterization Study to Determine the Plastic Carryout Bag Commingled Recycling Rates" ([CSUS Characterization Study](#), Adobe PDF, 650 KB). Many of the largest store chains declined to participate in the CSUS Characterization Study, which limits the representativeness of the data as well as the accuracy of the statewide recycling rate.

## Background

California's At-Store Recycling Program was established in 2006 by the passage of [AB 2449](#) (Levine, Chapter 845, Statutes of 2006). This law applies to supermarkets (with gross annual sales of \$2 million or more and that sells a line of dry groceries, canned goods, non-food items, or perishable goods) and other retail establishments (that have over 10,000 square feet of retail space that generate sales tax and have a licensed pharmacy), that provide plastic carryout bags at the point of sale to customers. The law requires regulated stores to establish a plastic carryout bag recycling program. Other retail establishments that do not fall under the law may also choose to voluntarily participate in this statewide program.

In 2007, the California Integrated Waste Management Board (now the Department of Resources Recycling and Recovery, or CalRecycle) [adopted regulations](#) that require regulated store operators to maintain records and submit annual reports to CalRecycle about the collection, transportation, and recycling of regulated plastic carryout bags. The regulations allow operators to report the weight of plastic carryout bags recycled or the weight of the bags commingled with other film plastic that is being recycled. Further, the regulations require CalRecycle to develop and publish a recycling rate for the commingled plastic film.

## Analysis

For 2009, store operators, representing 5,543 stores in California, reported that they purchased about 53,000 tons of regulated plastic carryout bags. Thirteen stores reported they did not purchase plastic carryout bags.

About 36 percent of stores reported that their recycling programs collected only plastic carryout bags ("bags-only").

About 58 percent of stores reported collecting plastic carryout bags commingled with other plastic material ("commingled").

About 4 percent reported collecting plastic carryout bags using both methods.

The remaining 2 percent either did not report recycling or did not report the weight of bags purchased.

**Table 1: Summary of Reported Collection Methods Used to Collect and Recycle Plastic Carryout Bags and the Weight of Bags Purchased**

Collection Methods	Number of Stores	Weight of Plastic Bags Purchased (tons)
Bags-Only	2,007	20,327
Commingled	3,207	28,881
Both Methods	239	2,949
Did Not Report Recycling	90	608
<b>Total</b>	<b>5,543*</b>	<b>52,765*</b>

\*Note: Thirteen (13) stores did not report the weight of bags purchased. Results may vary due to rounding.

To determine how much of the collected material sent to recycling was regulated plastic carryout bags, CalRecycle staff applied the adjustment factors established by the CSUS Characterization Study to the reported amounts collected. The "bags-only" and "commingled" collection methods each have their own adjustment factors as established by the study. The CSUS Characterization Study found that:

Bags-only method: Of the 7,700 tons reported as collected using this method, only 11 percent of this material were regulated bags and about 89 percent were either non-regulated bags or other plastic material and contaminants.

Commingled method: Of the 11,410 tons reported as collected using this method, about 6 percent of this material were regulated bags and about 94 percent were either non-regulated bags or other plastic material and contaminants.

**Table 2: Net Weight of Plastic Carryout Bags Collected for Recycling Using the Bags-Only and Commingled Methods**

Material Collected	Bags-Only Method		Commingled Method		Total Net Weight Collected (tons)
	CSUS Adjustment Factor (percent)	Net Weight Collected (tons)	CSUS Adjustment Factor (percent)	Net Weight Collected (tons)	
Regulated Plastic Carryout Bags	11	847	5.9	673	1,520
Non-Regulated Bags	4.1	316	7	799	1,115
Other Plastic Material	84.9	6,537	87.1	9,938	16,474
<b>Total</b>	<b>100</b>	<b>7,700</b>	<b>100</b>	<b>11,410</b>	<b>19,110*</b>

\*Note: Results may vary due to rounding.

**Recycling Rate**

The 2009 statewide recycling rate for regulated plastic carryout bags was calculated by dividing the total amount of regulated bags collected for recycling (1,520 tons) by the total amount of regulated bags purchased (52,765 tons). The resulting recycling rate is about 3 percent.

**Data Limitations**

Not all store operators submitted annual reports despite receiving multiple notices that reports were due. Therefore, there are likely more regulated stores in California than reported to CalRecycle. However, all of the large chain stores and many smaller chain stores reported.

The regulations also allow a designated reporting party to submit a report on behalf of a store operator. While this makes it easier for store operators to submit their reports, sometimes both the store and a designated reporting party submitted a report to CalRecycle. Also, some reports by designated reporting parties included several operators but did not specify which stores were included for which operator.

Many of the largest store chains declined to participate in the CSUS Characterization Study, which limits the representativeness of the data, as well as the overall accuracy of the statewide recycling rate.

**Collectors and Recyclers**

The 2009 annual reports identified 102 entities that either collected and/or recycled regulated plastic carryout bags. The entities included:

- Businesses (for example, plastic bag brokers, distributors, and plastic reproprocessors).
- Local waste haulers and municipalities.
- Nonprofits.
- Elementary schools.
- Other regulated stores.

Some of the products made from the recycled plastic carryout bags included new plastic bags, film plastic, and plastic lumber.

**Detailed Findings**

The following summary contains more detailed information than presented above in Tables 1 and 2.

In this summary, store operators are grouped together by size in order to differentiate their reporting results. The size of an operator is determined by the number of stores represented in their report. The number of stores illustrates differences between operators due to their quantities of plastic carryout bags purchased and recycled. Store operator categories are:

- Small – One (1) reported store location.
- Medium – Between two and ten (2-10) stores.
- Large – Between 11-100 stores.
- Extra Large – More than 100 stores.
- Non-Responsive – Store operators with an unknown number of store locations due to lack of a store list within the annual report.

Note: A number of annual reports did not include complete information for all sections. Therefore the number of store operators included in the analysis below varies as each analysis only includes the number of stores that submitted complete information.

Table 3 provides a summary of the total number of store locations, within each size category, that reported purchasing regulated plastic carryout bags for distribution.

**Table 3: Number of Stores Reporting Purchasing by Store Operator Category**

Store Operator Category	Number of Stores in Category	Percentage
Small (1)	274	5%
Medium (2-10)	262	5%
Large (11-100)	443	8%
Extra Large (101+)	4,564	82%
Non-Responsive (No Stores Listed)	Unknown	N/A
<b>Total</b>	<b>5,543</b>	

Figure 1 depicts the percentage distribution of stores from Table 3 by store operator category. This figure does not include the non-responsive store operators who have not submitted a list of store locations. The store operators that comprise the extra-large category account for 82 percent of the total reported stores.

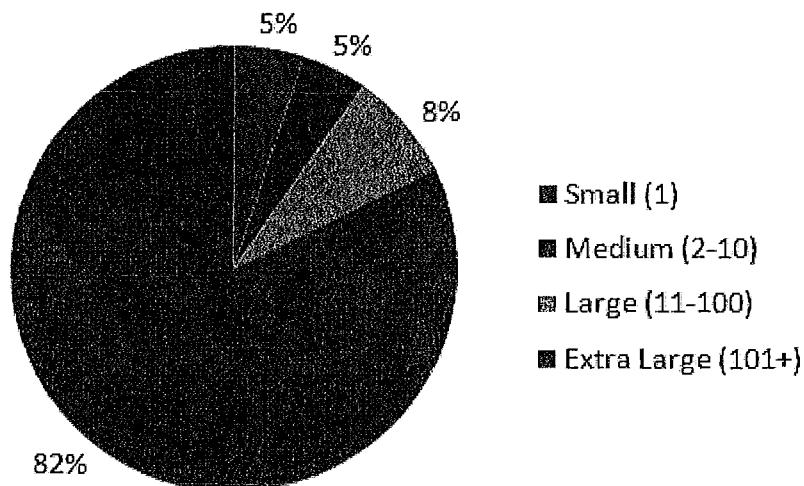


Table 4 is a summary of the methods used by the 322 store operators who reported to CalRecycle to collect and recycle or send for recycling their regulated plastic carryout bags. Store operators that used both bags-only and commingled methods to report their recycling are identified as "both methods."

**Table 4: Summary of Reported Collection Methods Used to Collect and Recycle Plastic Carryout Bags**

Reported Collection Method	Number of Store Operators
Bags-Only	191
Commingled	104
Both Methods	27

Table 5 presents a breakdown of all plastic materials collected for recycling using the bags-only collection method. The table provides a breakdown within the following three categories based on the CSUS findings:

Regulated bags: Plastic carryout bags that bear the "PLEASE RETURN TO A PARTICIPATING STORE FOR RECYCLING" notice.

Non-Regulated bags: Plastic carryout bags that do not bear the "PLEASE RETURN TO A PARTICIPATING STORE FOR RECYCLING" notice.

Other Plastic Material: Durable plastic items such as, but not limited to, bottles, hangers, tubs and pails.

The results show that in 2009, of the 7,700 tons reported as collected for recycling using the bags-only method, only 847 tons of regulated plastic carryout bags were collected.

**Table 5: Net Weight of Material Collected for Recycling Using the of Bags-Only Method**

Material Collected	CSUS Adjustment Factor (percent)	Net Weight Collected (tons)
Regulated Plastic Carryout Bags	11	847
Non-Regulated Bags	4.1	316
Other Plastic Material	84.9	6,537
Total	100	7,700*

\*Note: Weight results may not total due to rounding.

Table 6 presents a breakdown of all plastic materials collected for recycling using the commingled collection method. The table provides a breakdown within the following five categories based on the CSUS findings. Note: Data reported above in Table 2 as Non-Regulated Bags is further broken down here as "Non-Regulated Bags" and "Ineligible Bags." Similarly, data reported in Table 2 as Other Plastic Material is further broken down here as "Film and Shrink Wrap" and "Other Plastic Material."

**Regulated Bags:** Plastic carryout bags that bear the "PLEASE RETURN TO A PARTICIPATING STORE FOR RECYCLING" notice.

**Non-Regulated Bags:** Plastic carryout bags that do not bear the "PLEASE RETURN TO A PARTICIPATING STORE FOR RECYCLING" notice.

**Ineligible Bags:** Unregulated or mislabeled plastic bags (e.g. plastic trash bags, shopping/merchandise bags, sandwich bags, zipper bags, produce bags, etc.).

**Film and Shrink Wrap:** Plastic agricultural film, drop cloths, stretch and shrink wrap used to transport merchandise, packaging, other plastic wrap.

**Other Plastic Material:** Durable plastic items such as, but not limited to, bottles, hangers, tubs, and pails.

The results show that in 2009, of the 11,410 tons reported as collected for recycling using the commingled method, only 673 tons of regulated plastic carryout bags were collected.

**Table 6: Net Weight of Material Collected for Recycling Using the Commingled Method**

Material Collected	CSUS Adjustment Factor (percent)	Net Weight Collected (tons)
Regulated Plastic Carryout Bags	5.9	673
Non-Regulated Bags	1.1	126
Ineligible Bags	5.9	673
Film and Shrink Wrap	63.2	7,211
Other Plastic Material	23.9	2,727
<b>Total</b>	<b>100</b>	<b>11,410*</b>

Table 7 provides a summary of the collection methods used, by store operator category, to collect and recycle plastic carryout bags.

**Table 7: Summary of the Reported Collection Methods Used, by Store Operator Category, to Collect and Recycle Plastic Carryout Bags.**

Store Operator Category	Stores Using Bags-Only Method	Stores Using Commingled Method	Stores Using Both Methods	Total Number of Stores
Small (1)	131	68	21	220
Medium (2-10)	154	66	17	237
Large (11-100)	136	262	34	432
Extra Large (101+)	1,586	2,811	167	4,564
Non-Responsive (No Stores Listed)	Unknown	Unknown	Unknown	Unknown
<b>Total</b>	<b>2,007</b>	<b>3,207</b>	<b>239</b>	<b>5,453</b>



\*Note: The total numbers of stores does not include 90 stores that did not report any recycling.

[At-Store Recycling Program Home](#)

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Last updated: April 6, 2011  
Plastic Recycling <http://www.calrecycle.ca.gov/Plastics/>  
Contacts: <http://www.calrecycle.ca.gov/Plastics/Contacts.htm>

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## Wastes - Non-Hazardous Waste - Municipal Solid

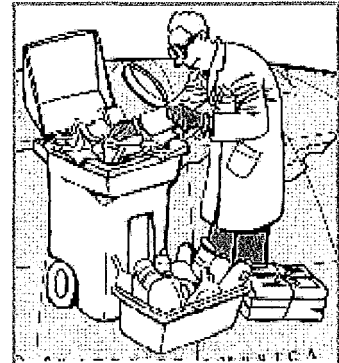
Waste Disposal [EPA Home](#) [Wastes](#) [Non-Hazardous Waste](#) [Municipal Solid Waste](#) [MSW](#)  
[MSW in the US: Facts and Figures](#)

# Municipal Solid Waste (MSW) in the United States: Facts and Figures

The MSW Characterization fact sheet and data tables provide the most recent available data on annual US waste generation, recycling, and disposal, as well as the benefits of recycling.

### 2010 MSW Characterization Reports

The 2010 MSW Characterization fact sheet and data tables were published in November 2011. There have been some revisions made to the data and a revised report has been published. A description of these changes can be found [here](#).



You will need Adobe Reader to view some of the files on this page. See EPA's PDF page to learn more.

- [2010 Facts and Figures Fact Sheet \(PDF\)](#) (12 pp, 1.34 MB)
- [2010 Data Tables \(PDF\)](#) (58 pp, 805K)
- [Methodology for MSW Characterization Numbers \(PDF\)](#) (12 pp, 65K)
- [Methodology for Estimating MSW Recycling Benefits \(PDF\)](#) (11 pp, 101K)

The full report, which is released every two years, contains data on:

1. MSW generation, recovery, and disposal from 1960 to 2009;
2. Per capita generation and discard rates;
3. Source reduction (waste prevention);
4. Materials and products that are in the waste stream;
5. Aggregate data on the infrastructure for MSW management, including estimates of the number of curbside recycling programs, composting programs, and landfills in the US; and
6. Trends in MSW management from 1960 to 2009, including source reduction, recycling and composting, and disposal via combustion and landfilling.

### MSW Characterization Reports from Previous Years

- [2009 Facts and Figures Fact Sheet \(PDF\)](#) (12 pp, 1.2MB)
- [2009 Facts and Figures Full Report \(PDF\)](#) (198 pp, 2.4MB)
- [2008 Facts and Figures Fact Sheet \(PDF\)](#) (12 pp, 1.2MB)
- [2008 Data Tables \(PDF\)](#) (58 pp, 945.86K)
- [2007 Facts and Figures \(PDF\)](#) (177 pp, 5.8MB)
- [2007 Facts and Figures Fact Sheet \(PDF\)](#) (12 pp, 506K)
- [2006 Facts and Figures Fact Sheet \(PDF\)](#) (11 pp, 882K)
- [2006 Data Tables \(PDF\)](#) (56 pp, 2.4MB)
- [2005 Facts and Figures Fact Sheet \(PDF\)](#) (12 pp, 532K)
- [2005 Facts and Figures \(PDF\)](#) (164 pp, 2.5MB)
- [2003 Facts and Figures Fact Sheet \(PDF\)](#) (12 pp, 626K)
- [2003 Data Tables \(PDF\)](#) (40 pp, 7MB)
- [2001 Facts and Figures \(PDF\)](#) (183 pp, 850K)
- [2000 \(PDF\)](#) (177 pp, 842K)
- [1999 \(PDF\)](#) (144 pp, 425K)
- [1998 \(PDF\)](#) (167 pp, 924K)
- [1998 Data Tables \(PDF\)](#) (36 pp, 153K)
- [1997 \(PDF\)](#) (182 pp, 560K)



**Item #: 9.B. Attach 1.pdf**

[1996 \(PDF\)](#) (168 pp, 515K)

[1995 \(PDF\)](#) (144 pp, 299K)

<http://www.epa.gov/osw/nonhaz/municipal/msw99.htm>

Last updated on Tuesday, July 24, 2012





# Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2010

The U.S. Environmental Protection Agency (EPA) has collected and reported data on the generation and disposal of waste in the United States for more than 30 years. We use this information to measure the success of waste reduction and recycling programs across the country. These facts and figures are current through calendar year 2010.

In 2010, Americans generated about 250 million tons of trash and recycled and composted nearly 85 million tons of this material, equivalent to a 34.0 percent recycling rate (see Figure 1 and Figure 2). On average, we recycled and composted 1.51 pounds out of our individual waste generation of 4.43 pounds per person per day.

Figure 1. MSW Generation Rates, 1960 to 2010

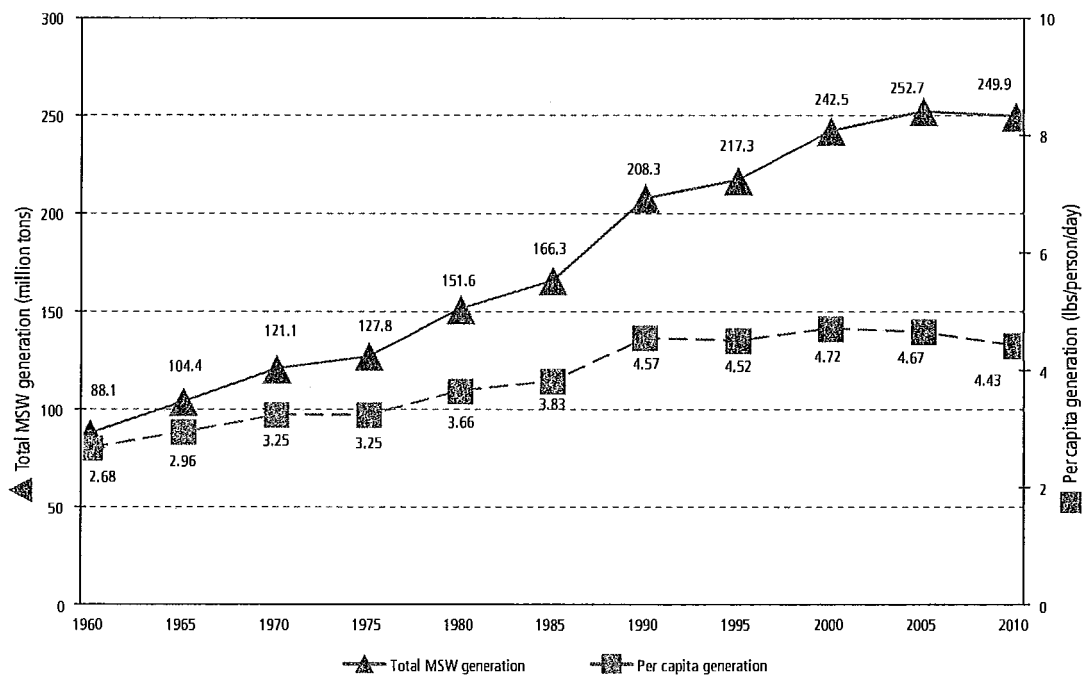
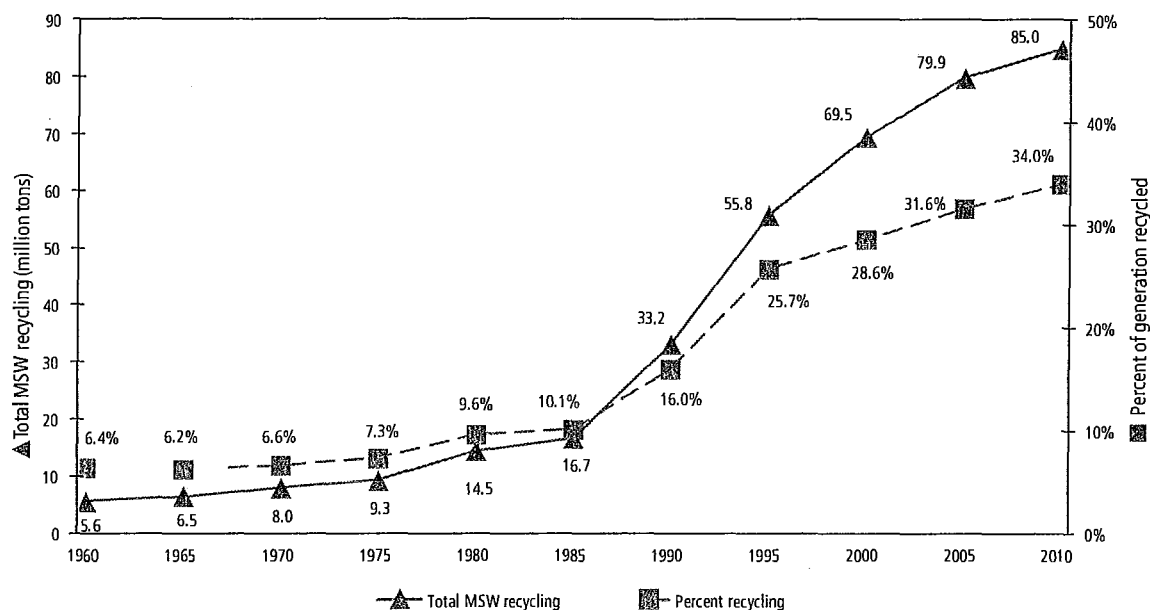


Figure 2. MSW Recycling Rates, 1960 to 2010



## Trends in Municipal Solid Waste in 2010

Our trash, or municipal solid waste (MSW), is made up of the things we commonly use and then throw away. These materials include items such as packaging, food scraps, grass clippings, sofas, computers, tires, and refrigerators. MSW does not include industrial, hazardous, or construction waste.

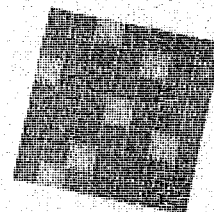
In 2010, Americans recovered almost 65 million tons of MSW (excluding composting) through recycling. Composting recovered over 20 million tons of waste. We combusted about 29 million tons for energy recovery (about 12 percent). Subtracting out what we recycled and composted, we combusted (with energy recovery) or discarded 2.9 pounds per person per day.

In 2010, newspaper/mechanical papers recovery was about 72 percent (7 million tons), and about 58 percent of yard trimmings were recovered (see Figure 3). Metals were recycled at a rate of about 35 percent (see Table 1). By recycling almost 8 million tons of metals (which includes aluminum, steel, and mixed metals), we eliminated greenhouse gas (GHG) emissions totaling more than 26 million metric tons of carbon dioxide equivalent (MMT $\text{CO}_2\text{E}$ ). This is equivalent to removing more than 5 million cars from the road for one year.\*

About 136 million tons of MSW (54.3 percent) were discarded in landfills in 2010 (see Figure 4).

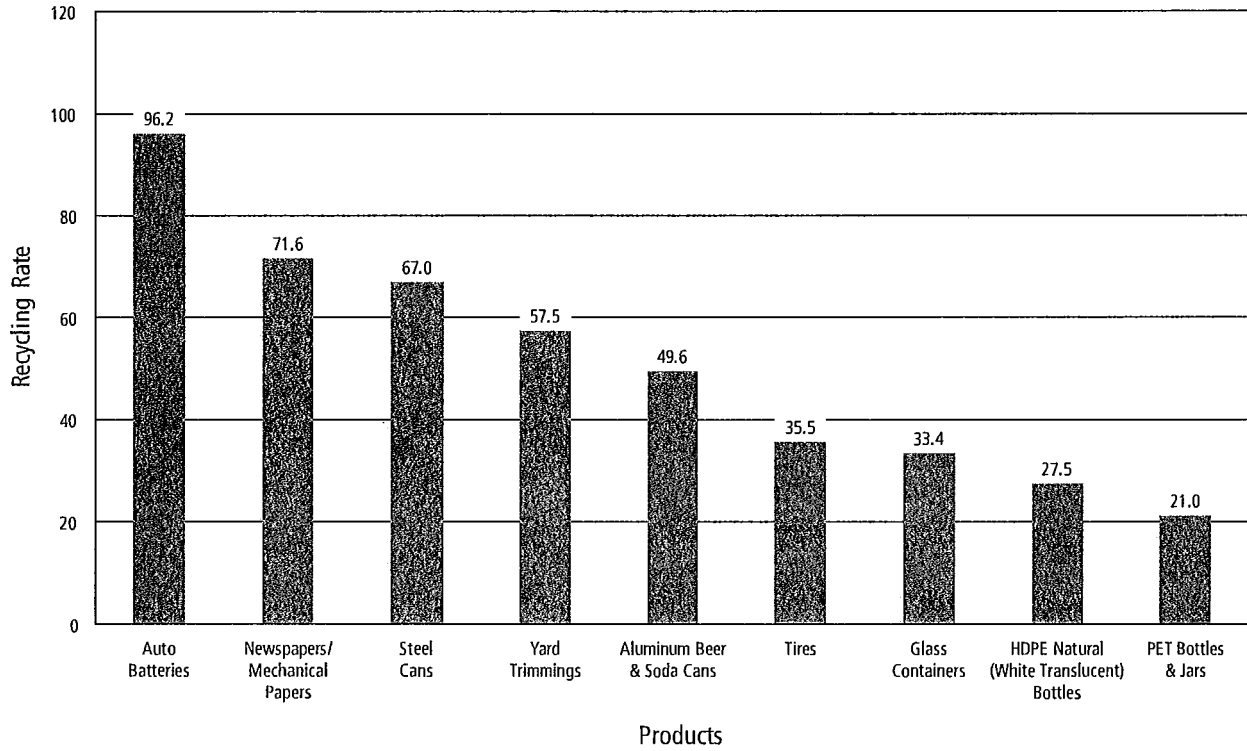
Over the last few decades, the generation, recycling, composting, and disposal of MSW have changed substantially.

While solid waste generation has increased from 3.66 to 4.43 pounds per person per day between 1980 and 2010, the recycling rate has also increased—from less than 10 percent of MSW generated in 1980 to 34 percent in 2010. Disposal of waste to a landfill has decreased from 89 percent of the amount generated in 1980 to about 54 percent of MSW in 2010.



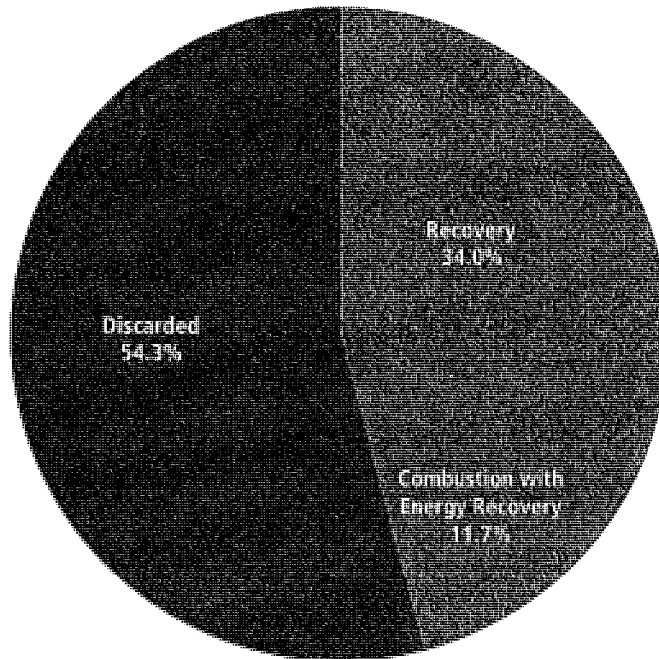
\* All benefit calculations in this fact sheet are derived from EPA's Waste Reduction Model (WARM). Please see [www.epa.gov/warm](http://www.epa.gov/warm)

Figure 3. Recycling Rates of Selected Products, 2010\*



\*Does not include combustion with energy recovery.

Figure 4. Management of MSW in the United States, 2010





## Sources of MSW

We estimated residential waste (including waste from apartment houses) to be 55 to 65 percent of total MSW generation. Waste from commercial and institutional locations, such as businesses, schools, and hospitals amounted to 35 to 45 percent.

Nationally, we recycled and composted nearly 85 million tons of municipal solid waste. This provides an annual benefit of more than 186 million metric tons of carbon dioxide equivalent emissions reduced, comparable to the annual GHG emissions from over 36 million passenger vehicles.

## Analyzing MSW

We analyze waste by material, such as paper and paperboard, yard trimmings, food scraps, and plastics, and by major product categories, which include durable goods (such as furniture), nondurable goods (such as paper or clothing), containers and packaging (such as milk cartons and plastic wrap), and other materials (such as food scraps).

## Materials in MSW

Total MSW generation in 2010 was 250 million tons. Organic materials continue to be the largest component of MSW. Paper and paperboard account for 29 percent and yard trimmings and food scraps account for another 27 percent. Plastics comprise 12 percent; metals make up 9 percent; and rubber, leather, and textiles account for 8 percent. Wood follows at around 6 percent and glass at 5 percent. Other miscellaneous wastes make up approximately 3 percent of the MSW generated in 2010 (see Figure 5).

Figure 5. Total MSW Generation (by material), 2010  
250 Million Tons (before recycling)

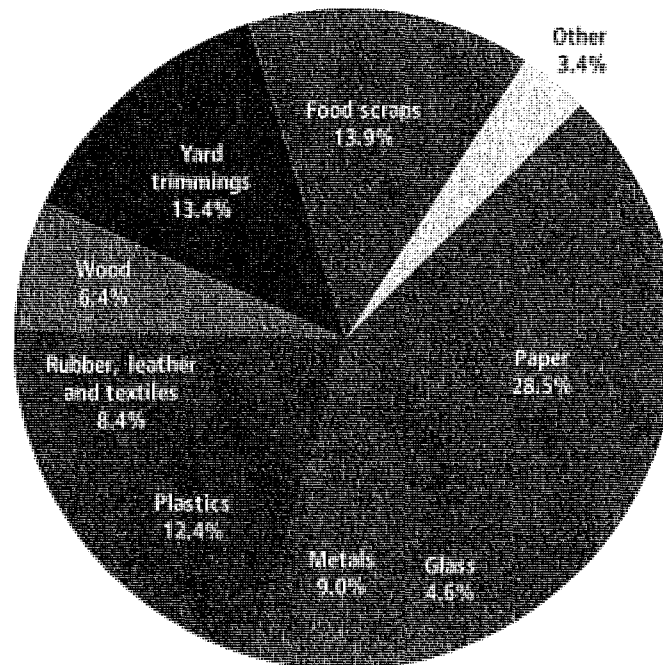


Table 1. Generation and Recovery of Materials in MSW, 2010\*  
(in millions of tons and percent of generation of each material)

Material	Weight Generated	Weight Recovered	Recovery as Percent of Generation
Paper and paperboard	71.31	44.57	62.5%
Glass	11.53	3.13	27.1%
Metals			
Steel	16.90	5.71	33.8%
Aluminum	3.41	0.68	19.9%
Other nonferrous metals†	2.10	1.48	70.5%
<b>Total metals</b>	<b>22.41</b>	<b>7.87</b>	<b>35.1%</b>
Plastics	31.04	2.36	7.6%
Rubber and leather	7.78	1.17	15.0%
Textiles	13.12	1.97	15.0%
Wood	15.88	2.30	14.5%
Other materials	4.79	1.41	29.4%
<b>Total materials in products</b>	<b>177.86</b>	<b>64.78</b>	<b>36.4%</b>
Other wastes			
Food, other‡	34.76	0.97	2.8%
Yard trimmings	33.40	19.20	57.5%
Miscellaneous inorganic wastes	3.84	Negligible	Negligible
<b>Total other wastes</b>	<b>72.00</b>	<b>20.17</b>	<b>28.0%</b>
<b>Total municipal solid waste</b>	<b>249.86</b>	<b>84.95</b>	<b>34.0 %</b>

\* Includes waste from residential, commercial, and institutional sources.

† Includes lead from lead-acid batteries.

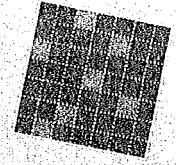
‡ Includes recovery of other MSW organics for composting.

Details might not add to totals due to rounding.

Negligible = Less than 5,000 tons or 0.05 percent.

Significant amounts of material from each category were recycled or composted in 2010. The highest recovery rates were achieved in paper and paperboard, yard trimmings, and metals. We recycled more than 62 percent of the paper and paperboard we generated. Over 19 million tons of yard trimmings were composted, representing almost a five-fold increase since 1990. Recycling these three materials alone kept almost 29 percent of MSW out of landfills and combustion facilities. Recycling amounts and rates (recovery as a percent of generation) for all materials in 2010 are listed in Table 1.

Recycling and composting nearly 85 million tons of MSW saved more than 1.3 quadrillion Btu of energy, the equivalent of over 229 million barrels of oil.



### Products in MSW

The breakdown, by weight, of waste generated in 2010 by product category is shown in Figure 6. Containers and packaging made up the largest portion of MSW generated: about 30 percent, or almost 76 million tons. The second largest portion came from nondurable goods, which amounted to 21 percent, or about 53 million tons. Durable goods make up the third largest segment, accounting for about 20 percent, or 49 million tons.

The generation and recovery of materials in the product categories, by weight and recovery as a percent of generation, are shown in Table 2. This table shows that the recovery of containers and packaging was the highest of the four product categories, with about 48 percent of the generated materials recycled. Paper products, steel, and aluminum were the most recycled materials by percentage in this category. About 71 percent of paper and paperboard containers and packaging was recycled, including 85 percent of all corrugated boxes. Sixty-nine percent of steel packaging (mostly cans) was recycled. The recycling rate for aluminum packaging was about 36 percent, including almost 50 percent of aluminum beverage cans.

Figure 6. Total MSW Generation (by category), 2010  
250 million tons (before recycling)

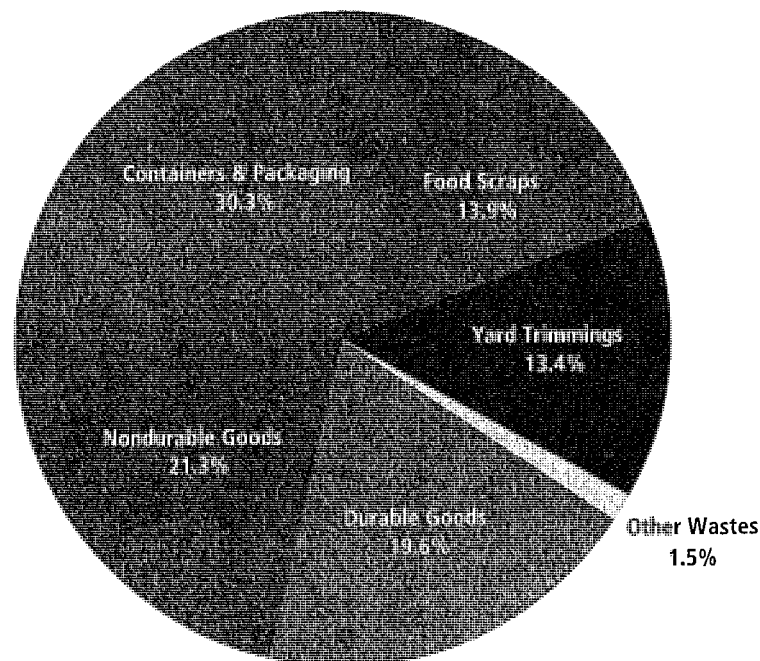


Table 2. Generation and Recovery of Products in MSW, 2010\* (in millions of tons and percent of generation of each product)

Products	Weight Generated	Weight Recovered	Recovery as Percent of Generation
<b>Durable goods</b>			
Steel	14.16	3.82	27.0%
Aluminum	1.31	Negligible	Negligible
Other non-ferrous metals†	2.10	1.48	70.5%
Glass	2.17	Negligible	Negligible
Plastics	10.96	0.70	6.4%
Rubber and leather	6.74	1.17	17.4%
Wood	5.89	Negligible	Negligible
Textiles	3.93	0.50	12.7%
Other materials	1.82	1.41	77.5%
<b>Total durable goods</b>	<b>49.08</b>	<b>9.08</b>	<b>18.5%</b>
<b>Nondurable goods</b>			
Paper and paperboard	33.57	17.72	52.7%
Plastics	6.40	Negligible	Negligible
Rubber and leather	1.04	Negligible	Negligible
Textiles	8.90	1.47	16.5%
Other materials	3.23	Negligible	Negligible
<b>Total nondurable goods</b>	<b>53.14</b>	<b>19.19</b>	<b>36.1%</b>
<b>Containers and packaging</b>			
Steel	2.74	1.89	69.0%
Aluminum	1.90	0.68	35.8%
Glass	9.36	3.13	33.4%
Paper and paperboard	37.68	26.85	71.3%
Plastics	13.68	1.66	12.1%
Wood	9.94	2.30	23.1%
Other materials	0.34	Negligible	Negligible
<b>Total containers and packaging</b>	<b>75.64</b>	<b>36.51</b>	<b>48.3%</b>
<b>Other wastes</b>			
Food, other‡	34.76	0.97	2.8%
Yard trimmings	33.40	19.20	57.5%
Miscellaneous inorganic wastes	3.84	Negligible	Negligible
<b>Total other wastes</b>	<b>72.00</b>	<b>20.17</b>	<b>28.0%</b>
<b>Total municipal solid waste</b>	<b>249.86</b>	<b>84.95</b>	<b>34.0%</b>

\* Includes waste from residential, commercial, and institutional sources.

† Includes lead from lead-acid batteries.

‡ Includes recovery of other MSW organics for composting.

Details might not add to totals due to rounding.

Negligible = less than 5,000 tons or 0.05 percent.

Table 3. Generation, Materials Recovery, Composting, Combustion With Energy Recovery, and Discards of MSW, 1960 to 2010 (in millions of tons)

Activity	1960	1970	1980	1990	2000	2005	2007	2008	2009	2010
<b>Generation</b>	88.1	121.1	151.6	208.3	242.5	252.7	255.4	251.4	243.7	249.9
<b>Recovery for recycling</b>	5.6	8.0	14.5	29.0	53.0	59.3	63.1	61.7	61.5	64.8
<b>Recovery for composting*</b>	Negligible	Negligible	Negligible	4.2	16.5	20.6	21.7	22.1	20.8	20.2
<b>Total materials recovery</b>	5.6	8.0	14.5	33.2	69.5	79.9	84.8	83.8	82.3	85.0
<b>Combustion with energy recovery†</b>	0.0	0.4	2.7	29.7	33.7	31.6	32.0	31.6	29.0	29.3
<b>Discards to landfill, other disposal‡</b>	82.5	112.7	134.4	145.3	139.4	141.2	138.6	136.0	132.4	135.7

\* Composting of yard trimmings, food scraps, and other MSW organic material. Does not include backyard composting.

† Includes combustion of MSW in mass burn or refuse-derived fuel form, and combustion with energy recovery of source separated materials in MSW (e.g., wood pallets, tire-derived fuel).

‡ Discards after recovery minus combustion with energy recovery. Discards include combustion without energy recovery.

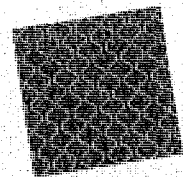
Details might not add to totals due to rounding.

Over 33 percent of glass containers were recycled while about 23 percent of wood packaging, mostly wood pallets, was recovered. Over 12 percent of plastic containers and packaging was recycled, mostly from soft drink, milk, and water bottles. Plastic bottles were the most recycled plastic products. Recovery of high density polyethylene (HDPE) natural (white translucent) bottles was estimated at about 28 percent. Polyethylene terephthalate (PET) bottles and jars were recovered at 21 percent (see 2010 MSW Tables and Figures).

Overall recovery of nondurable goods was just over 36 percent in 2010. Nondurable goods generally last less than three years. Newspapers/mechanical papers and other paper products were the most recycled nondurable goods. Newspapers/mechanical papers include newspapers, directories, inserts, and some advertisement and direct mail printing. About 72 percent of newspapers/mechanical papers were recovered. Collectively, the recovery of other paper products such as office paper and magazines was 45 percent in 2010. Clothing, footwear, and other textile products are included in the nondurable goods category. These products were recovered for recycling at a rate of over 14 percent.

Overall, more than 18 percent of durable goods was recovered in 2010. Nonferrous metals other than aluminum had one of the highest recovery rates due to the high rate of lead recovery from lead-acid

Every ton of mixed paper recycled can save the energy equivalent of 165 gallons of gasoline.



batteries. With a 96 percent recycling rate, lead-acid batteries continue to be one of the most recovered products. Recovery of steel in all durable goods was 27 percent, with high rates of recovery from appliances and other miscellaneous items.

Measured by percentage of generation, products with the highest recovery rates in 2010 were lead-acid batteries (96 percent), corrugated boxes (85 percent), newspapers/mechanical papers (72 percent), steel packaging (69 percent), major appliances (65 percent), yard trimmings (58 percent), aluminum cans (50 percent), and mixed paper (45 percent) (see 2010 MSW Tables and Figures).

### Recycling and Composting Collection Programs\*\*

- Approximately 9,000 curbside recycling programs exist nationwide, up from 8,875 in 2002.
- About 3,090 community composting programs were documented in 2010, a decrease from 3,227 in 2002.

Table 4. Generation, Materials Recovery, Composting, Combustion With Energy Recovery, and Discards of MSW, 1960 to 2010 (in pounds per person per day)

Activity	1960	1970	1980	1990	2000	2005	2007	2008	2009	2010
<b>Generation</b>	2.68	3.25	3.66	4.57	4.72	4.67	4.64	4.53	4.35	4.43
Recovery for recycling	0.17	0.22	0.35	0.64	1.03	1.10	1.15	1.11	1.10	1.15
Recovery for composting*	Negligible	Negligible	Negligible	0.09	0.32	0.38	0.39	0.40	0.37	0.36
<b>Total Materials Recovery</b>	0.17	0.22	0.35	0.73	1.35	1.48	1.54	1.51	1.47	1.51
<b>Combustion with energy recovery†</b>	0.00	0.01	0.07	0.65	0.66	0.58	0.58	0.57	0.52	0.52
<b>Discards to landfill, other disposal‡</b>	2.51	3.02	3.24	3.19	2.71	2.61	2.52	2.45	2.36	2.40
<b>Population (millions)</b>	179.979	203.984	227.255	249.907	281.422	296.410	301.621	304.060	307.007	309.051

\* Composting of yard trimmings, food scraps, and other MSW organic material. Does not include backyard composting.

† Includes combustion of MSW in mass burn or refuse-derived fuel form, and combustion with energy recovery of source separated materials in MSW (e.g., wood pallets, tire-derived fuel).

‡ Discards after recovery minus combustion with energy recovery. Discards include combustion without energy recovery. Details might not add to totals due to rounding.

\*\* Source: For 2002 data: *BioCycle* 2006.

For 2010 data: EPA, *Municipal Solid Waste in the United States: 2010 Data Tables and Figures*.

## Disposing of MSW

While the number of U.S. landfills has steadily declined over the years, the average landfill size has increased. At the national level, landfill capacity appears to be sufficient, although it is limited in some areas.

- Since 1990, the total amount of MSW going to landfills dropped by almost 10 million tons, from 145.3 million to 135.7 million tons in 2010 (see Table 3).
- The net per capita discard rate (after recycling, composting, and combustion for energy recovery) was 2.40 pounds per person per day, lower than the 2.51 per capita rate in 1960, when virtually no recycling occurred in the United States (see Table 4).

## The Benefits of Recycling

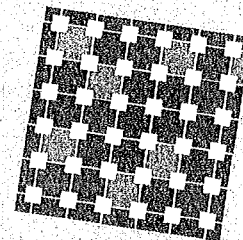
Recycling has environmental benefits at every stage in the life cycle of a consumer product—from the raw material with which it's made to its final method of disposal. Aside from reducing GHG emissions, which contribute to global warming, recycling also reduces air and water pollution associated with making new products from raw materials. By utilizing used, unwanted, or obsolete materials as industrial feedstocks or for new materials or products, we can each do our part to make recycling work. Recycling also provides significant economic and job creation impacts, a topic discussed at [www.epa.gov/epawaste/conserves/rrr/rmd/econ.htm](http://www.epa.gov/epawaste/conserves/rrr/rmd/econ.htm).

In 2010, nationally, we recycled and composted nearly 85 million tons of MSW. This provides an annual benefit of more than 186 million metric tons of carbon dioxide equivalent emissions reduced, comparable to removing the emissions from over 36 million passenger vehicles. But the ultimate benefits from recycling are cleaner land, air, and water, overall better health, and a more sustainable economy.

## Resources

The data summarized in this fact sheet characterizes the MSW stream as a whole by using a materials flow methodology that relies on a mass balance approach. For example, to determine the amounts of paper recycled, information is gathered on the amounts processed by paper mills and made into new paper on a national basis plus recycled paper exported, instead of counting paper collected for recycling on a state-by-state basis. Using data gathered from industry associations, businesses, and government sources, such as the U.S. Department of Commerce and the U.S. Census Bureau, we estimate tons of materials and products generated, recycled, and discarded. Other sources of data, such as waste characterizations and research reports performed by governments, industry, or the press, supplement these data.

Recycling just 1 ton of aluminum cans conserves more than 207 million Btu, the equivalent of 36 barrels of oil, or 1,665 gallons of gasoline.



## Energy Recovered from Waste Combustion

- In 2010, over 29 million tons of materials, or 11.7 percent, were combusted for energy recovery.
- MSW combustion for energy recovery has decreased from about 34 million tons in 2000 to 29 million tons in 2010.

The benefits of recycling and composting, such as elimination of GHG emissions, are calculated using EPA's WARM methodology. Please see: [www.epa.gov/warm](http://www.epa.gov/warm).

WARM calculates and totals GHG emissions of baseline and alternative waste management practices including source reduction, recycling, composting, combustion, and landfilling. The model calculates emissions in metric tons of carbon equivalent (MTCE), metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E), and energy units (million Btu) across a wide range of material types commonly found in MSW. EPA developed GHG emissions reduction factors through a life-cycle assessment methodology. EPA's report, *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks* (EPA-530-R-02-006), describes this methodology in detail ([www.epa.gov/climatechange/wycd/waste/downloads/fullreport.pdf](http://www.epa.gov/climatechange/wycd/waste/downloads/fullreport.pdf)).

Full data tables on MSW characterization that support this Report and Summaries of the MSW characterization methodology and WARM are available on the EPA website along with information about waste reduction and recycling. Please see:

[www.epa.gov/epawaste/nonhaz/municipal/msw99.htm](http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm)

[www.epa.gov/epawaste/conserves/rrr/index.htm](http://www.epa.gov/epawaste/conserves/rrr/index.htm).

In percentage of total MSW generation, recovery for recycling (including composting) did not exceed 15 percent until 1990. Growth in the recovery rate to current levels (34 percent) reflects an increase in infrastructure and market demand for recovery over the last decade.





United States  
Environmental Protection  
Agency

United States Environmental Protection Agency  
Solid Waste and Emergency Response (5306P)  
Washington, DC 20460

Official Business  
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EPA-530-F-11-005  
November 2011  
[www.epa.gov/wastes](http://www.epa.gov/wastes)



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## About Us

### Background

Green Cities California (GCC) is a coalition of twelve of California's largest and most environmentally progressive local governments. Our mission is to accelerate the implementation of sustainability policies and programs through collaborative action.



*GCC representatives at their Fall 2011 retreat at Lake Tahoe.*  
 Front row, left to right: Kate Danaher, GCC Administrator, David Assmann, San Francisco; Back row, left to right: Erik Pearson, Hayward; Linden Skjeie, San Jose; Mike Foster, San Jose; Elise Jackson, Pasadena; Billi Romain, Berkeley; Carol Misseldine, GCC Director; Garrett Fitzgerald, Oakland; Calla Ostrander, San Francisco; Linda Giannelli Prall, San Diego; Shannon Parry, Santa Monica; Dean Kuban, Santa Monica.

Scientists are ever more urgent in sounding the alarm about the catastrophic consequences of climate change and other looming environmental emergencies including the over-consumption of natural resources, peak oil, availability of clean fresh water, food security, and environmental justice. That urgency is a primary reason these jurisdictions have joined together to amplify and accelerate their individual sustainability efforts.

Leveraging traction gained at the local government level is crucial for two reasons. First, for the first time in history, the majority of the planet's population lives in cities. Second, local governments are relatively small, flexible, and directly responsible to their constituents and are proving to be more effective in advancing forward thinking sustainability policies and programs than State or Federal governments.

GCC members are leaders in developing and implementing leading edge sustainability policies and practices. The bar for GCC membership is high, by design. Pre-requisites include adoption of:

1. a climate action plan, or a commitment to have one adopted by year's end;
2. the United Nations Urban Environmental Accords, and
3. the Conference of Mayors Climate Protection Agreement.

All GCC members have demonstrated leadership in achieving effective solutions to the environmental challenges faced by urban communities. While many cities are just now beginning to explore the feasibility of mandating green building standards or conducting their first Greenhouse Gas emissions inventory, most GCC members are on their second and third iterations of these and other sustainability related policies and initiatives.

### Goals

1. Influence State and National policy in the areas of :
  - Reductions in greenhouse gas emissions
  - Extended Producer Responsibility (EPR)
  - Sustainable land Use, building and development
  - Waste reduction
  - Water conservation
  - Energy efficiency and renewable energy
  - Reduction in vehicle miles traveled (VMT) and single occupancy vehicles
  - Equitable distribution of environmental benefits and burdens

ACCOMPLISHMENTS

GCC policies have resulted in...

Conversion of over 665 million sheets of paper to 100% recycled content each year, which saves:

- 10 million pounds of carbon dioxide emissions
- Almost 80,000 trees
- More than 23 million gallons of water
- More than 6,600 barrels of oil

1,633,302 plastic water bottles from being landfilled, which saves:

- GCC member cities over \$1.6 Million

SUSTAINABILITY ISSUES & NEWS

- GCC Seeks New Director
- Clean Water Action Seeks Project Coordinator
- Judge Upholds San Francisco's Bag Ordinance
- Mitigating Climate Change Through Food and Land Use
- Carol Misseldine Named 2012 Environmental Hero of the North Bay
- The Carbon We Consume
- Single Use Bag Reduction Efforts
- GCC Policy Positions
- Mayoral Executive Orders and City Manager Directives
- Urban Environmental Accords
- White Paper on Litter Cleanup

MEMBERS

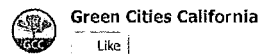
- City of Berkeley
- City of Hayward
- City of Los Angeles
- County of Marin
- City of Oakland
- City of Pasadena
- City of Richmond
- City of San Diego
- City/County of San Francisco
- City of San Jose
- City of Santa Barbara
- City of Santa Monica

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**Green Cities California** shared Sustainable Cities Collective's photo.  
 This living wall in Copenhagen outlines a map of Europe.  
 Image Credit: urbanation.tumblr.com #green #cities



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- 2. Assist other local governments throughout the state and the nation to adopt and implement sustainability related policies and practices.
- 3. Work collaboratively on specific "eco-initiatives" such as promoting climate friendly foods, highlighting the role that consumption plays in climate protection, collectively agreeing to purchase only 100% recycled paper and prohibiting the use of city funds for bottled water.

GCC Initiatives

- 1. **Climate Friendly Foods**  
At their retreat in October 2011, GCC members agreed to move forward collectively in promoting climate friendly foods by participating in the Cool Foods and Meatless Monday campaigns, among other initiatives.
- 2. **Tackling Consumption**  
On behalf of GCC, the San Francisco Department of the Environment commissioned a statewide assessment that highlights how our purchasing choices impact climate change. The report, entitled "*The Carbon We Consume: A Greenhouse Gas Impacts Assessment of Consumer Demand in California*," also offers insights on ways each of us can reduce our contribution to climate change by making thoughtful choices when we shop.
- 3. **Promote Bans on Single Use Bags Statewide**  
In early 2010, GCC commissioned a Master Environmental Assessment (MEA) on single use bags, following the filing of lawsuits against cities that have passed single use bag fees or bans without conducting a full Environmental Impact Review (EIR). Since an EIR is prohibitively expensive, particularly for small cities, free access to the MEA has dramatically decreased the costs of developing EIRs and has facilitated the adoption of local ordinances that institute fees and bans on single use bags in dozens of jurisdictions across the state. See the MEA and related material.
- 4. **Collective Voice on State Legislation**  
The collective voice of GCC's high performance cities has contributed to the success of legislative proposals on Extended Producer Responsibility (EPR) and renewable energy and to more aggressive climate protection targets in AB32, California's landmark Global Warming Solutions Act.
- 5. **Recycled Paper**  
As one of their first collaborative efforts, GCC members agreed to require that all paper purchased for city operations be 100% post consumer recycled paper. Collectively GCC jurisdictions purchase half a billion sheets of office paper annually, at a cost of about \$5 million. By switching to 100% recycled paper, GCC members annually save:
  - 8,600,000 pounds of CO2 emissions,
  - 19,600,000 gallons of water,
  - 11,500,000 kilowatt hours of electricity, and
  - 67,000 trees
- 6. **No More Bottled Water!**  
GCC members also agreed to ban the use of city funds for bottled water, resulting in annual savings of more than \$5 million.

Last updated April 19, 2012

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# Californians Against Waste

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### Our Mission

Californians Against Waste is dedicated to conserving resources, preventing pollution and protecting California's environment through the development, promotion and implementation of waste reduction and recycling policies and programs.

### Waste/Recycling Video: Plastic Pollution on Midway Beach



### Where To Recycle

### Latest from our twitter feed



CA Against Waste  
**cawrecycles**

cawrecycles Starting this Monday, new bag bans for SF, SLO County, and eps ban for Dana Point. Have a wonderful fall season!  
[cawrecycles.org/whats\\_new/recy...](#)  
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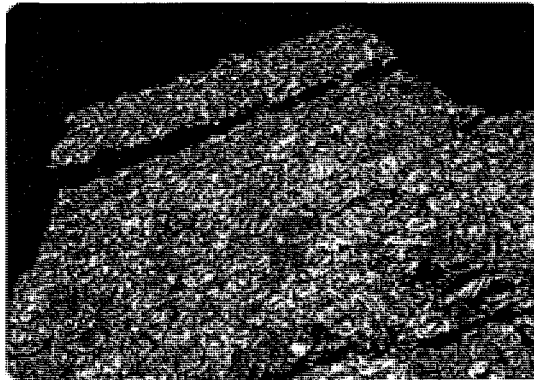
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## Are you a Californian Against Waste?

Sunday September 30, 2012

### Hot Issues

California's Bottle & Can Recycling Law - The Bottle Bill



**Update: CalRecycle recommends adding all ready-to-drink beverages as part of their plan to get to 75% recycling by 2020.**

California's Bottle Bill is one of the nation's most successful litter and pollution reduction programs. Since 1988, Californians have recycled more than 10 million tons of aluminum, glass and plastic beverage containers. No other recycling program or policy in this state has resulted in higher recycling levels, and no program of its kind in the country has been found to be more cost effective.

While the latest CA Beverage Container Recycling Rates show continued high--82% overall—container recycling rates, the picture is less rosy for Plastic Beverage Containers.



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- Sept 28 - Bag, EPS Ordinances Start Oct
- Several CA Jurisdiction
- Sept 25 - UPDATE: Santa Cruz Co Says No to Plastic Bags in Restaurants
- Sept 25 - Homer City Council Overrides Mayor Bag Ban Veto
- Sept 25 - Gov Brown Recycling Bills Into Law
- Sept 24 - Santa Cruz Votes on Expanding E to Restaurants

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Current 'loopholes' in the beverage container recycling law means more than 250 million recyclable plastic bottles remain exempt from the program. This means more than 350,000 tons of plastic containers continue to be littered and landfilled at the same time that California-based plastic processors are struggling to get a sufficient supply of recycled plastic to meet manufacturer demand. Increasing the use of recycled plastic in California manufacturing means both jobs and reduced Greenhouse Gas Emissions.

### Take Action

Take Action On Single-Use Plastic Bag and Polystyrene Ordinances



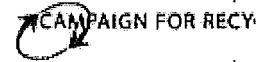
The problem of plastic litter is only growing. Plastic is the fastest-growing component of the waste stream, and plastic pollution like expanded polystyrene (eps) and single-use bags are among the most commonly found items during beach and coastal cleanups. Because plastic essentially never biodegrades, once littered plastic becomes a permanent environmental problem.

The solution is clear: highly-littered plastic items like plastic bags and polystyrene food packaging need to be banned. Californians should reduce their use of disposable packaging. Find out more about our Campaign to End Single Use Plastic Bags and other plastic litter.



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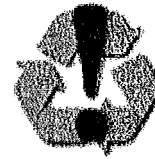






## Our Top Priority Legislation

AB 2670 (Chesbro) and AB 1634 (Chesbro) - Food Scrap and Yard Trimming Composting and Digestion



**Summary.** AB 2670 and AB 1634 present a package of policies that will drive the recycling of yard trimming and food scraps, not only resulting in a reduction of pollution and greenhouse gases, but also creating jobs and supporting a burgeoning industry.

### **Position and Status.**

CAW Supports.

SB 1118 (Hancock) Mattress Recycling

**Summary.** SB 1118 would help reduce illegal mattress dumping by requiring manufacturers to take back used mattresses at the end of life at no cost to the consumers.

Manufacturers are responsible for developing, financing and implementing a convenient and cost effective program to collect and recycle used mattresses generated in this state.

**Position and Status.** CAW supports. SB 1118 passed out of the Senate and is currently in the second house, in policy committee.

### **Take Action! Send a support letter to your Assembly Member!**

AB 298 (Brownley) - Single Use Bag Bill

**Summary.** AB 298 prohibits stores from distributing single-use carryout bags. Certain types of bags may be made available for consumer purchase.

**Position and Status.** CAW Supports.

SB 568 (Lowenthal) - Polystyrene Food Containers

**Summary.** SB 568 prohibits food vendors from dispensing cooked food in expanded polystyrene (eps) foam containers.

**Position and Status.** CAW Supports.

SB 568 failed to pass the Assembly floor on the last day of session.



**Californians Against Waste** is recognized as one of the nation's leading non-profit environmental research and advocacy organizations focusing on resource conservation and pollution prevention through waste reduction and recycling. The organization's 35 year history and track record of accomplishments has demonstrated it to be principled, practical, creative and effective. Find out more about CAW.

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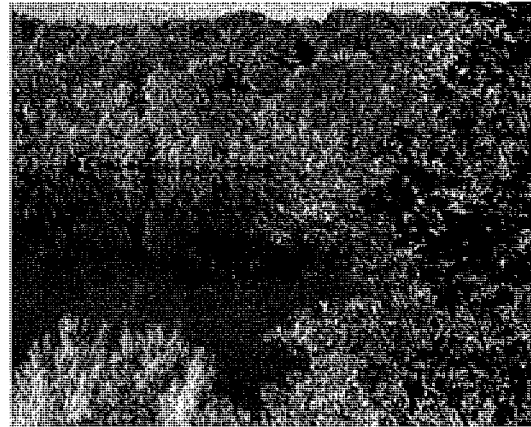


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## Sept 28 - Bag, EPS Ordinances Start Oct 1 for Several CA Jurisdictions

Submitted by Recycling News on September 28, 2012 - 09:21.



Fall is officially here, and starting October 1, that means several more CA cities and counties can enjoy the autumn colors with less plastic pollution when their ordinances become operative.

*San Francisco - bag ban in all stores*

San Francisco recently won the lawsuit against the plastic industry for expanding its trailblazing ordinance to all retail stores and restaurants. The plastic bag ban rolls out triumphantly on Monday in all SF retail stores, and expands to restaurants next July.

*SLO County and Cities - bag ban in large supermarkets*

Supermarkets throughout San Luis Obispo County (including its seven incorporated cities) will also be plastic bag free by the beginning of the month. The ordinance was



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Feb 6 - CAW News Release: The Failure of Plastic Bag Recycling

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### Media Links

Sept 26 - European Union commissioner urges green future for plastics (Waste & Recycling News)



adopted earlier this year by the SLO Integrated Waste Management Authority.

*Dana Point - foam container ban in restaurants*

Further south, the City of Dana Point has been sending out notices to food vendors, letting them know about the ban of foamed polystyrene to take place on October 1. The City adopted an eps ban in February followed by a bag ban one month later. Read more in an article.

*San Rafael - adoption of polystyrene ban*

Also on Monday, the San Rafael City Council is scheduled for a second reading to adopt its polystyrene container ban. Effective one year after adoption. Read more on our blog.

***Check our Take Action page to see how you can support plastic pollution ordinances. You can also help us by making an online donation.***

( categories: **Marine Debris Packaging Plastic Plastic Bags** )

**Recycling News's blog** [Login or register to post comments](#)

Sept 12 - Judge Upholds SF Plastic Bag Ban (KQED)  
Sept 5 - Plastic Bags and Styrofoam Remain Un-Banned (KCET)  
Sept 5 - California fails to pass statewide plastic bans (Plastics News)  
Sept 1 - It's time to quit using plastic bags statewide for the sake of our oceans and also our wallets (Press Telegram)

**Interested in Waste Issues in Other States?**









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## Sept 13 - SF Plastic Bag Ban Wins in Court

Submitted by Recycling News on September 10, 2012 - 14:37.



It's another court victory for local bag bans.

Yesterday afternoon, San Francisco Superior Court Judge Teri L. Jackson delivered a verbal ruling in favor of the City and County of San Francisco and its plastic bag ordinance.

San Francisco was sued by the Save the Plastic Bag Coalition (STPBC) earlier this year for adopting its ordinance with a Categorical Exemption instead of conducting an Environmental Impact Report, and for including restaurants in the ordinance.

Judge Jackson rejected both arguments made by the STPBC lawyer, but agreed to hear a motion for a stay on the implementation of the ordinance pending appeal. The hearing is scheduled for next Tuesday afternoon.

The City's groundbreaking bag ban was the first in the nation in 2007 and originally applied to large grocery stores and convenience stores only. This new ordinance would extend the ban to all retail stores starting October 1, 2012, and



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**Media Links**

Sept 26 - European Union commissioner urges green



to all food vendors starting next July. Paper, compostable plastic, and reusable bags may be purchased.

Melanie Nutter, Director of San Francisco Department of the Environment, said in a press release,

*"The continued use of plastic bags pollutes the environment and has been a hurdle for the City in reaching its goal of zero waste. Today we celebrate the court's decision supporting the City's approach to expand the checkout bag ordinance. This is a huge step forward toward reducing plastic bag use as well as all single use bags."*

We applaud the City for taking a stand against the plastic bag industry's intimidation efforts, and celebrate with them in their victory.

This positive ruling follows similar wins for local bag ordinances in Manhattan Beach and Marin County and will be helpful for pending cases. STPBC recently filed a complaint against the City of Santa Cruz for its plastic bag ban. A ruling on the San Luis Obispo County's bag ordinance has yet to be decided, and the Marin County decision is being appealed.

**\*UPDATE\*** A request to delay the implementation date of 10/1/2012 (motion to stay) was denied on September 18.

You can sign up for regular updates or support our work on this issue by making a donation.

( categories: [Marine Debris](#) [Plastic](#) [Plastic Bags](#) )

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future for plastics (Waste & Recycling News)

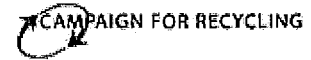
Sept 12 - Judge Upholds SF Plastic Bag Ban (KQED)

Sept 5 - Plastic Bags and Styrofoam Remain Un-Banned (KCET)

Sept 5 - California fails to pass statewide plastic bans (Plastics News)

Sept 1 - It's time to quit using plastic bags statewide for the sake of our oceans and also our wallets (Press Telegram)

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Home » Plastic Litter and Waste Reduction Campaign » Plastic Bag

## Plastic Litter and Waste Reduction Campaign

Plastic Bag Litter Pollution

The Problem of Plastic Bags

Plastic Bags: Local Ordinances

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Compliance Links: AB 2449

Stopping the Rising Tide of Marine Debris Pollution

California Ocean Protection Council Targets Plastic Litter and Waste

Polystyrene Takeout Food Packaging Pollution

Vinyl Chloride: Recycling and Health

Understanding the Resin Identification Code

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## Plastic Bags: Local Ordinances



Many cities and counties are currently in the process of adopting plastic bag ban ordinances. Click here to learn more about plastic industry intimidation efforts against ordinances. Below are the cities that have adopted ordinances.

### **Alameda County and City, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City**

The Alameda County Waste Management Authority (StopWaste.org) adopted its ordinance banning plastic bags and placing a 10 cent price requirement on paper and reusable bags in January of 2012. It goes into effect on January 1, 2013 in unincorporated Alameda County as well as its 14 incorporated cities.

### **Calabasas**

The Calabasas City Council unanimously adopted a plastic bag ban with a



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### CAW Recycling News

Oct 11 - WSJ Features Bag Ban Debate

Oct 10 - Sunnyvale Asks for Public Input on Foam Ban Tomorrow

Oct 9 - LA City Holds Meeting on Bag Ban Study on Wednesday

Oct 8 - Gallery Displays Life Size Whale Sculpture Made from Plastic Bags, Debris

Oct 5 - San Francisco Achieves New Record High - 80% Diversion

[more](#)

### Mark Murray's Blog

May 14 - Bottle Bill: Mixed Results for CA Container Recycling

Apr 16 - Senator Strickland Proposes Government Warning on Grocery Bags

Feb 6 - CAW News Release: The Failure of Plastic Bag Recycling

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minimum ten cent price requirement on paper bags in February 2011.

**Carmel-by-the-Sea**

Carmel adopted a plastic bag ban in all retail stores on July 3, 2012. It goes into effect on February 3, 2013.

**Carpinteria**

Carpinteria adopted the first double bag ban in the state on March 12, 2012. Starting in July 2012, large retailers as specified are prohibited from distributing single-use paper and plastic bags. Starting in April 2013, plastic bags are banned in all other retail stores.

**Dana Point**

The City of Dana Point adopted a ban on single-use plastic bags from all retail stores within city limits on March 6, 2012. Effective in larger stores April 1, 2013, and all other stores October 1, 2013.

**Fairfax**

The Fairfax City Council adopted its ban on plastic bags August 2007. After a legal challenge by the plastics industry, Fairfax voters overwhelmingly adopted a plastic bag ban by initiative in November 2008.

**Fort Bragg**

Fort Bragg banned plastic bags and required a 10 cent paper bag charge in all retail stores. The ordinance was adopted May 14, 2012. Effective in large stores December 10, 2012, expanding to all other stores in December 2013.

**Laguna Beach**

In February 2012, the Laguna Beach City Council unanimously adopted a plastic bag ban in all retail stores. Grocery stores, pharmacies, and convenience/liquor stores must include a 10 cent minimum price requirement on paper bags distributed. Effective 1/1/13.

**Long Beach**

On May 17, 2011, the City of Long Beach passed a bag ordinance with a 5-0 vote. It banned single-use plastic bags and placed a 10 cent minimum price requirement on paper bags. The ordinance is effective in larger stores starting August 2011, and will expand to others stores in 2012.

**Plastic & Marine Debris News**

Oct 4 - Officials rejoice over low 5-cent bag fee revenue (WTOP)

Oct 1 - F.T.C. Issues Guidelines for 'Eco-Friendly' Labels (NY Times)

Sept 26 - European Union commissioner urges green future for plastics (Waste & Recycling News)

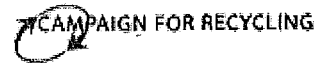
Sept 5 - Plastic Bags and Styrofoam Remain Un-Banned (KCET)

Aug 29 - LA Unified School District Bans Foam Lunch Trays (Huff Post)

*older stories*

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**Los Angeles County**

Los Angeles County adopted an ordinance banning single-use plastic bags and placing a 10 cent minimum price requirement on paper bags in November 2010. The ordinance is effective for large supermarkets and retailers starting July 2011, and expands to other applicable stores in January of 2012.

**Malibu**

The Malibu City Council voted in May 2008 to ban plastic bags.

**Manhattan Beach**

The Manhattan Beach City council voted in July 2008 to ban plastic bags. The CA Supreme Court overturned a legal challenge to the ordinance in July 2011.

**Marin County**

Marin County Board of Supervisors voted unanimously in favor of an ordinance restricting the free distribution of single-use bags in January 2011, effective January 2012.

**Mendocino County**

The County Board of Supervisors adopted a plastic bag ban with a ten cent paper bag charge on June 12, 2012. Effective in large stores in January 2013, and expanding to all other retailers one year later.

**Millbrae**

On February 14, 2012, the Millbrae City Council adopted a plastic bag ban with a 10 cent requirement on paper bags. The ordinance goes into effect on September 1, 2012 in all retail establishments, except for restaurants, non-profits, and dry-cleaners.

**Monterey**

The Monterey City Council unanimously passed an ordinance on December 6, 2011. The ordinance bans plastic bags and places an initial 10 cent minimum price requirement on paper bags for the first year (25 cents after).

**Ojai**

Ojai adopted a plastic bag ban on April 10, 2012. Grocery stores may distribute paper bags with 10 cent price requirement. Effective July 1, 2012 in all retail stores.



**Palo Alto**

The Palo Alto City Council voted March 2009 to ban plastic bags at large supermarkets and announced their intention to consider expanding the ban to cover all retail stores as well as enacting a fee on paper bags.

**Pasadena**

In November of 2011, the Pasadena City Council unanimously adopted a plastic bag ban with a 10 cent minimum price requirement on paper bags. Effective July 1, 2012 for large stores and supermarkets and December 2012 for convenience stores.

**San Francisco**

San Francisco became the first city in the nation to adopt a ban on plastic shopping bags in April 2007. In February of 2012, the Board of Supervisors voted to expand the ordinance to more stores.

**San Jose**

San Jose City Council voted and adopted a ban on single use plastic carryout bags in January 2011. The ban will extend to all retailers in the city, exempting restaurants and non-profit reuse organizations. It is effective January 1, 2012. For the first two years, paper bags will be sold under this ordinance at 10 cents each; after two years the minimum price per paper bag is 25 cents each.

**San Luis Obispo County and City, Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach**

The San Luis Obispo County Integrated Waste Management Authority adopted a plastic bag ban with a 10 cent minimum price requirement on paper bags in January of 2012. It goes into effect on 10/1/12 in all seven incorporated cities as well as unincorporated areas of the county.

**Santa Clara County**

On April 26, 2011, the County Board of Supervisors voted in favor of a single-use bag ordinance. The ordinance bans single-use plastic bags and places a 15 cent minimum price requirement on single-use paper bags throughout unincorporated county areas. It is effective January 1, 2012.

**Santa Cruz City**

The City Council adopted a plastic bag ban and 10 cent paper bag charge on July 24. Effective in all retail stores starting April 2013.

**Santa Cruz County**

On September 13, 2011, the County Board of Supervisors voted unanimously in favor of a single-use bag ordinance. It bans single-use plastic bags and places a 10 cent minimum price requirement on single-use paper bags throughout unincorporated county areas. It is effective March 20, 2012.

**Santa Monica**

The Santa Monica City Council unanimously voted for a ban on single-use plastic bags and a cost pass-through requirement per recyclable paper bag in January 2011. Visit their website for more information.

**Solana Beach**

On May 9, 2012, Solana Beach became the first city in San Diego County to adopt a plastic bag ban. Paper bags can be purchased for ten cents each under the ordinance.

**Sunnyvale**

Sunnyvale passed a bag ordinance in December 2011. The ordinance bans single-use plastic bags and places a 10 cent minimum price requirement on paper bags which later increases to 25 cents. Starting June 20, 2012 it covers grocery and convenience stores and large retailers, and expands to cover all retailers by March 2013.

**Ukiah**

City Council adopted an ordinance on May 2, 2012 banning plastic bags and placing a 10 cent charge on paper bags in all retail stores. The ban is operative starting in large stores within six months of adoption.

**Watsonville**

On May 8, 2012, Watsonville became the first city in Santa Cruz County to ban plastic bags in all retail stores. An initial 10 cent charge on paper bags is mandated to increase to 25 cents after the first year.

**West Hollywood**

City Council adopted a plastic bag ban with 10 cent paper charge on August 20, 2012. Effective in large stores in six months, all other retail stores in one year.

How Does a Local Government Protect Itself From Litigation?


Plastic Industry Uses Legal Harrassment to Intimidate Against Plastic Bag Bans

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## About the Bag



The Los Angeles County Board of Supervisors has adopted an **ordinance** banning single use plastic carryout bags at stores in the County unincorporated areas, while requiring they charge 10¢ for each paper bag provided to a customer. The 10-cent charge on paper bags is not subject to State sales tax and will be retained by stores for use in complying with the ordinance.

The intent of the ordinance is to promote the use of reusable bags over single use plastic and paper carryout bags in order to reduce the negative economic and environmental impacts associated with single use bags. This is one of over 20 single use plastic carryout bag bans adopted in California alone. And nearly the same number of jurisdictions around the country have also adopted carryout bag restrictions. Some cities within Los Angeles County who have already passed similar ordinances are: Calabasas, Long Beach, Malibu, Manhattan Beach, Pasadena, Santa Monica, and West Hollywood.

Below you will find free resources to help your business implement the ordinance.



**Environmental Impacts** - Learn about the adverse effects caused from continued use of single use plastic bags and littering



**Certified Environmental Impact Report** - CEQA documents and background information on County efforts



**FAQs** - For stores wanting more information on the ordinance requirements



**Store Resources** - Flyers, brochures, and other helpful material to implement the ordinance

### ANNOUNCEMENTS:

**September 2012** – To build on information provided below in our July update and to address recent news reports related to an industry-funded study regarding the impacts of the County’s single use bag ordinance, we present the following results and additional information regarding the success of the County’s Ordinance as it affects stores in the unincorporated areas. It is important to note that the industry-funded study’s conclusions appear to be based on only 3% of survey respondents, while the results below are summaries of reported information that are required to be submitted from all stores.

All large stores affected by the ordinance submitted their reports, including paper bag data, for the first 3 quarters of the Ordinance, as required. A majority of affected small stores have also submitted reports for the 1st quarter of this year and additional reports are being submitted. The following overall conclusions can be made from the first full year of ordinance implementation at large stores:

- + Approximately 125,000 paper bags were provided per store annually (In contrast to approximately 2.2 million single use plastic bags provided per store annually prior to the Ordinance going into effect)
- + Approximately \$6,400 were received per store annually from the paper bag charge

From quarter to quarter, paper bag usage continues to decline with a 16 percent overall reduction since the ban went into effect. There are stores that have reported their change in carryout bag policy to no longer use paper bags.

The ordinance affects over 1 million residents and about 800 stores, and to date, Public Works received only about 200 inquiries from stores and residents after the Ordinance took effect. Stores contacted Public Works to obtain clarification about the Ordinance, confirm whether the Ordinance was applicable to them, and report nearby stores they believed were not complying with the Ordinance. Residents contacted Public Works to ask questions about aspects of the Ordinance (e.g., why charge for paper bags) and report stores that they believed were not complying with the Ordinance. Staff made site visits to affected stores to observe or assist them into compliance with the Ordinance.

- [About the Bag Home](#)
- [Background & FAQ](#)
- [Reusable Bag Tips](#)
- [Take Action](#)
- [Get Involved](#)
- [Take the Pledge](#)
- [Report Store Violation](#)
- [For Stores](#)
- [Main Elements](#)
- [Frequently Asked Questions](#)
- [Submit Quarterly Report](#)
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- [Bag Compliance](#)
- [Government Info](#)
- [Ordinance & CEQA](#)
- [City Outreach](#)
- [EIR \(PDF, 50MB\)](#)
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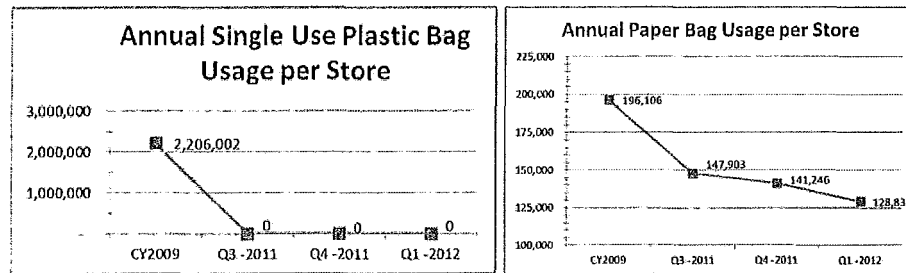
of efforts underway that may impact their operations, sales, and employment. This started back in 2007 when San Francisco first adopted a Carryout Bag Ordinance. To learn about the County's efforts prior to adopting the Ordinance, click [here](#).

Department of Public Works conducted the following various methods of outreach to stores that would be affected by the County Ordinance. Prior to both effective dates of the County Bag Ordinance, the About The Bag campaign conducted reusable bag giveaways at stores and community events to help residents be aware of the ordinance and help them prepare for it. Press conferences were also held to promote the upcoming ban. The About The Bag Eco-Elf campaign distributed reusable bags at participating stores and libraries, and ran a sweepstakes for residents pledging to use reusable shopping bags. Since the campaign, over 300 residents have made the **Bag Pledge**.

The County considered possible impacts of the ban on store operations and sales, and proposed strategies (**best management practices**) to assist stores to comply with the Ordinance. Since the ban has been in effect, **local reusable bag companies** have started to emerge to take advantage of this growing market.

Reuse potential for plastic bags are significantly lower compared to that of reusable bags. Before the ordinance, plastics were typically reused only a couple of times if at all, but then still landfilled. The decline of plastic bag purchases by stores in the unincorporated areas reduces the potential for these thin and lightweight bags to litter the County and impact the landscape and wildlife therein. To learn more about environmental impacts of single use plastic bags, click [here](#).

**July 2012** - As we approach the one year anniversary of the ordinance at large stores, we are pleased to announce the Ordinance has so far resulted in a 95% reduction in overall single use bag usage (both plastic and paper), which includes eliminating all single use plastic bags and a significant reduction of over 30% in paper bag usage. We anticipate a similar result as the ordinance is implemented at smaller stores. Keep up the good work Los Angeles County!



(Note: Reduction of single use bags was determined by comparing extrapolated Quarterly Report data with reported plastic bag usage in 2009 and estimated paper bag usage based on Bag Usage Survey conducted for the County Bag EIR.)

[Ordinance](#) | [Affected Stores](#) | [Store Quarterly Report](#)

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Public Service That Works



California LEGISLATIVE INFORMATION

AB-298 Solid waste: single-use carryout bags. (2011-2012)

AMENDED IN SENATE AUGUST 06, 2012
AMENDED IN SENATE JUNE 18, 2012
AMENDED IN ASSEMBLY APRIL 14, 2011
AMENDED IN ASSEMBLY MARCH 30, 2011

CALIFORNIA LEGISLATURE— 2011-2012 REGULAR SESSION

ASSEMBLY BILL

No. 298

Introduced by Assembly Member Brownley

February 09, 2011

An act to add Chapter 5.3 (commencing with Section 42280) to Part 3 of Division 30 of, and to repeal Section 42289 of, the Public Resources Code, relating to solid waste.

LEGISLATIVE COUNSEL'S DIGEST

AB 298, as amended, Brownley. Solid waste: single-use carryout bags.

Existing law, until January 1, 2013, requires an operator of a store, as defined, to establish an at-store recycling program that provides to customers the opportunity to return clean plastic carryout bags to that store and prohibits a city, county, or other local public agency from taking specified regulatory actions with regard to the recycling of plastic carryout bags.

With specified exceptions, the bill would, as of January 1, 2014, prohibit stores that have a specified amount of dollar sales or retail floor space from providing a single-use carryout bag to a customer. The bill would require these stores to meet other specified requirements regarding providing recycled paper bags, compostable bags, or reusable bags to customers.

The bill would also require these stores, on and after January 1, 2013, to provide a plastic bag collection bin for their customers, for the purpose of collecting and recycling single-use plastic bags and reusable bags.

The bill would, on and after July 1, 2015, additionally impose these prohibitions and requirements on convenience food stores, foodmarts, and certain other specified stores, except for the requirement to provide plastic bag collection bins.

The bill would, beginning January 1, 2015, require a reusable grocery bag producer to submit to the Department of Resources Recycling and Recovery a biennial certification, including a certification fee established by the department, that certifies that each type of reusable grocery bag that is imported, manufactured, sold, or distributed in the state and provided to a store for sale or distribution meets specified

requirements. The bill would require the department to deposit the certification fees into the Reusable Bag Account, which would be established by the bill in the Integrated Waste Management Fund. The bill would require that moneys in the account be expended by the department, upon appropriation by the Legislature, to implement the certification requirements. A violation of these certification requirements would be subject to an administrative civil penalty assessed by the department. The department would be required to deposit these penalties into the Penalty Subaccount, which the bill would create in the Reusable Bag Account, for expenditure by the department, upon appropriation by the Legislature, to implement the certification requirements.

The bill would require the department, by January 1, 2016, to submit a report to the Legislature regarding the implementation of the bill's provisions. The bill would repeal this report requirement on January 1, 2017.

The bill would allow a city, county, or city and county, or the state to impose civil penalties for a violation of the bill's requirements, except for the certification requirements. The bill would require these civil penalties to be paid to the office of the city attorney, city prosecutor, district attorney, or Attorney General, whichever office brought the action, and would allow the penalties collected by the Attorney General to be expended by the Attorney General, upon appropriation by the Legislature, to enforce the bill's provisions.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: no

#### THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

**SECTION 1.** Chapter 5.3 (commencing with Section 42280) is added to Part 3 of Division 30 of the Public Resources Code, to read:

**CHAPTER 5.3. Single-use Carryout Bags**  
**Article 1. Definitions**

**42280.** For purposes of this chapter, the following definitions shall apply:

- (a) "Department" means the Department of Resources Recycling and Recovery.
- (b) "Postconsumer recycled material" means a material that would otherwise be destined for solid waste disposal, having completed its intended end use and product life cycle. Postconsumer recycled material does not include materials and byproducts generated from, and commonly reused within, an original manufacturing and fabrication process.
- (c) "Recycled paper bag" means a paper carryout bag provided by a store to a customer at the point of sale that meets all of the following requirements:
  - (1) (A) Except as provided in subparagraph (B), the paper carryout bag contains a minimum of 40 percent postconsumer recycled materials.
  - (B) An eight pound or smaller recycled paper bag shall contain a minimum of 20 percent postconsumer recycled material.
  - (2) Is accepted for recycling in curbside programs in a majority of households that have access to curbside recycling programs in the state.
  - (3) Is capable of composting, consistent with the timeline and specifications of the American Society of Testing and Materials (ASTM) Standard Specification for Compostable Plastics D6400.
  - (4) Has printed on the bag the name of the manufacturer, the location (country) where the bag was manufactured, and the minimum percentage of postconsumer content.
- (d) (1) "Reusable grocery bag" on or before June 30, 2015, means either of the following:
  - (A) A bag made of cloth or other machine washable fabric that has handles.
  - (B) A durable plastic bag with handles that is at least 2.25 mils thick and specifically designed for multiple reuses.
- (2) "Reusable grocery bag" on and after July 1, 2015, means a bag that meets the requirements of Section 42287.
- (e) "Reusable grocery bag producer" means a person or entity that does any of the following:

- (1) Manufactures reusable grocery bags for sale or distribution to a store.
  - (2) Imports reusable grocery bags into this state, for sale or distribution to a store.
  - (3) Sells or distributes reusable bags to a store.
- (f) (1) "Single-use carryout bag" means a bag made of plastic, paper, or other material, that is provided by a store to a customer at the point of sale and that is not a reusable grocery bag that meets the requirements of Section 42287, on and after July 1, 2015, and paragraph (1) of subdivision (d) of this section on or before June 30, 2015.
- (2) A single-use carryout bag does not include either of the following:
- (A) A bag provided by a pharmacy pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code to a customer purchasing a prescription medication.
- (B) A nonhandled bag used to protect a purchased item from damaging or contaminating other purchased items when placed in a recycled paper bag or reusable grocery bag.
- (g) "Store" means a retail establishment that meets any of the following requirements:
- (1) A full-line, self-service retail store with gross annual sales of two million dollars (\$2,000,000), or more, and which sells a line of dry grocery, canned goods, or nonfood items and some perishable items.
  - (2) Has at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code.
  - (3) Is a convenience food store, foodmart, or other entity that is engaged in the retail sale of a limited line of goods, generally including milk, bread, soda, and snack foods, and that holds a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

#### Article 2. Carryout Bag Regulation

- 42281.** (a) Except as provided in Section 42282, the requirements of this section apply only to a store, as defined in paragraph (1) or (2) of subdivision (g) of Section 42280.
- (b) (1) On and after January 1, 2014, a store shall not provide a single-use carryout bag to a customer at the point of sale, except as provided in this section.
- (2) On January 1, 2014, until June 30, 2015, a store may provide to a customer a reusable grocery bag, as defined in paragraph (1) of subdivision (d) of Section 42280.
- (3) On and after July 1, 2015, a store shall only provide to a customer a reusable grocery bag, as defined in paragraph (2) of subdivision (d) of Section 42280, that meets the requirements of Section 42287.
- (c) A store ~~may~~ *shall* make reusable grocery bags available for purchase by a customer.
- (d) Notwithstanding any other law, on and after January 1, 2014, a store shall provide a customer participating in the California Special Supplemental Food Program for Women, Infants, and Children pursuant to Article 2 (commencing with Section 123275) of Chapter 1 of Part 2 of Division 106 of the Health and Safety Code and a customer participating in the Supplemental Food Program pursuant to Chapter 10 (commencing with Section 15500) of Part 3 of Division 9 of the Welfare and Institutions Code, with a reusable grocery bag or a recycled paper bag at no cost at the point of sale.
- (e) Notwithstanding subdivision (b), a store may make available for purchase at the point of sale a recycled paper bag.
- (f) Notwithstanding subdivision (b), a store may make available for purchase at the point of sale a compostable bag, that at a minimum meets the American Society for Testing and Materials (ASTM) Standard Specification for Compostable Plastics D6400, if both of the following requirements are met in the jurisdiction where the compostable bag is sold:
- (1) A majority of the residential households in the jurisdiction have access to curbside collection of foodwaste for composting.



(2) The governing authority for the jurisdiction has voted to allow stores in the jurisdiction to sell to a consumer at the point of sale a compostable bag at a cost not less than the actual cost of the bags.

**42282.** On and after July 1, 2015, a store as defined in paragraph (3) of subdivision (g) of Section 42280, shall comply with the same requirements of this article that are imposed upon a store, as defined in paragraph (1) or (2) of subdivision (g) of Section 42880.

### **Article 3. Plastic Bag Collection**

**42283.** (a) (1) On and after January 1, 2013, a store, as defined in paragraphs (1) and (2) of subdivision (g) of Section 42280, shall place a plastic bag collection bin at the store in a manner that is visible and easily accessible to the customer, and that is clearly marked to notify customers that the collection bin is available for the purpose of collection and recycling of plastic single-use carryout bags and plastic reusable bags.

(2) The requirement of this subdivision shall apply to a store notwithstanding that the store is prohibited from providing single-use carryout bags to its customers.

(b) All plastic bags collected by the store shall be collected, transported, and recycled in a manner that does not conflict with the local jurisdiction's source reduction and recycling element, pursuant to Chapter 2 (commencing with Section 41000) and Chapter 3 (commencing with Section 41300) of Part 2.

### **Article 4. Reusable Grocery Bags**

**42287.** (a) On and after July 1, 2015, a reusable grocery bag shall meet all of the following requirements:

(1) (A) Be designed and manufactured to withstand, at a minimum, 125 uses.

(B) For purposes of this paragraph, "125 uses" means the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet.

(2) Is machine washable or made from a material that can be cleaned and disinfected.

(3) Have printed on the bag, or on a tag attached to the bag that is not intended to be removed, and in a manner visible to the consumer the following information:

(A) The name of the manufacturer.

(B) The location (country) where the bag was manufactured.

(C) A recycling symbol or end-of-life management instructions.

(D) The percentage of postconsumer recycled material, if any.

(4) It shall not contain lead, cadmium, or any other heavy metal in toxic amounts. This requirement shall not affect any authority of the Department of Toxic Substances Control pursuant to Article 14 (commencing with Section 25251) of Chapter 6.5 of Division 20 of the Health and Safety Code and, notwithstanding subdivision (c) of Section 25257.1 of the Health and Safety Code, the reusable grocery bag shall not be considered as a product category already regulated or subject to regulation.

(5) If the reusable grocery bag producer makes a claim that it is recyclable, the producer shall demonstrate compliance with the regulations adopted by the Federal Trade Commission.

(b) In addition to the requirements in subdivision (a), a reusable grocery bag made from plastic shall meet all of the following requirements:

(1) On and after July 1, 2016, be made from a minimum of 20 percent postconsumer recycled material, except as provided in subdivision (d).

(2) In addition to the information required to be printed on the bag or on a tag, pursuant to paragraph (3) of subdivision (a), all of the following information shall be printed on the bag, or on a tag that complies with that paragraph:

(A) A statement that the bag is a reusable bag and designed for at least 125 uses.

(B) Instructions to return the bag to the store for recycling or to another appropriate recycling location.

(c) A plastic reusable grocery bag that also meets the specifications of the American Society of Testing and Materials (ASTM) Standard Specification for Compostable Plastics D6400, as published in September 2004, is not required to meet the requirements of paragraph (1) of subdivision (b), but shall be labeled in accordance with the applicable state law regarding compostable plastics.

(d) (1) If a plastic reusable grocery bag producer is unable to obtain sufficient amounts of postconsumer recycled material to comply with this article within a reporting period because of unavailability, the producer shall demonstrate to the department the actions taken by that plastic reusable grocery bag producer to find that postconsumer recycled material.

(2) A plastic reusable grocery bag producer making the demonstration in paragraph (1) shall make a reasonable effort to identify available supplies of postconsumer recycled material before submitting a certification containing this information to the department pursuant to Section 42288.

(3) A plastic reusable grocery bag producer shall include the greatest amount of postconsumer recycled material possible in the reusable grocery bag, even if this amount is less than required by paragraph (1) of subdivision (b) and shall indicate the percentage that is postconsumer recycled material.

**42288.** (a) On or before January 1, 2015, and on January 1 every two years thereafter on a schedule and in a manner determined by the department, a reusable grocery bag producer shall submit a certification to the department for each type of reusable grocery bag that is manufactured, imported, sold, or distributed in the state and provided to a store for sale or distribution that meets the requirements of Section 42287.

(b) A reusable grocery bag producer shall submit a fee, as established pursuant to subdivision (e), to the department with each certification submitted.

(c) The department shall provide a system to submit certifications online.

(d) On and after July 1, 2015, the department shall publish a list on its Internet Web site that includes both of the following:

(1) The name, location, and appropriate contact information of a reusable grocery bag producer that is in compliance with this article.

(2) The reusable grocery bags that are in compliance with this article.

(e) The department shall establish a certification fee schedule that will generate fee revenues sufficient to cover all of the department's costs to enforce this article. Fee revenues shall not exceed the amount necessary to cover the department's reasonable costs to enforce this article.

(f) The department may inspect and audit a reusable bag producer subject to this article with all costs associated with the audit being paid for by the reusable grocery bag producer.

(g) The department may test any reusable bag manufactured by a reusable bag producer and provided to a store for sale or distribution for compliance with this article and the regulations adopted pursuant to this article.

(h) The department may enter into an agreement with other state entities that conduct inspections to provide necessary enforcement of this article.

(i) Notwithstanding Section 42289.5, any violation of this article shall be subject to an administrative civil penalty assessed by the department in an amount not to exceed five hundred dollars (\$500) for the first violation. A subsequent violation may be subject to an increased penalty of up to five hundred dollars (\$500) per violation, not to exceed five thousand dollars (\$5,000) per violation.

(j) The department shall deposit all certification fees paid pursuant to this article into the Reusable Bag Account, which is hereby created in the Integrated Waste Management Fund in the State Treasury. The moneys deposited in the Reusable Bag Account shall be expended by the department, upon appropriation by the Legislature, to assist the department with its costs of implementing this article.

(k) The department shall deposit all penalties collected pursuant to subdivision (i) for a violation of this article into the Penalty Subaccount, which is hereby created in the Reusable Bag Account. The moneys in the Penalty Subaccount shall be expended by the department, upon appropriation by the Legislature, to assist the department with its costs of implementing this article.

**Article 5. Reporting Requirements**

**42289.** (a) On or before January 1, 2016, the department shall submit a report to the Legislature in accordance with Section 9795 of the Government Code, regarding the effectiveness of this chapter and recommendations for statutory changes to increase effectiveness, which shall include all of the following:

- (1) A compilation of state cleanup data to evaluate pollution reduction.
- (2) Recommendations to further encourage the use of reusable grocery bags by customers and stores.
- (3) An evaluation of the requirements for reusable bags specified in Section 42287.
- (4) Distribution of recycled paper bags.
- (5) Number and type of violations.

(b) The department shall coordinate with other state and local agencies in compiling this report to maximize existing efforts and resources in the areas of litter reduction, water quality, and environmental protection.

(c) Pursuant to Section 110231.5 of the Government Code, this section is repealed on January 1, 2017.

**Article 6. Enforcement**

**42289.5.** (a) A city, a county, a city and county, or the state may impose civil liability in the amount of five hundred dollars (\$500) for the first violation of this chapter, one thousand dollars (\$1,000) for the second violation, and two thousand dollars (\$2,000) for the third and subsequent violations.

(b) Any civil penalties collected pursuant to subdivision (a) shall be paid to the office of the city attorney, city prosecutor, district attorney, or Attorney General, whichever office brought the action. The penalties collected pursuant to this section by the Attorney General may be expended by the Attorney General, upon appropriation by the Legislature, to enforce this chapter.

(c) This section does not apply to a violation of Article 4 (commencing with Section 42287).

**CITY OF CAPITOLA**  
**SINGLE-USE BAG REDUCTION ORDINANCE**  
**Negative Declaration / Initial Study**  
STATE CLEARINGHOUSE NUMBER 2012102042

**Summary of Public Comments and Responses**  
November 30, 2012

**I. INTRODUCTION**

An Initial Study and Negative Declaration were prepared in October 2012 and circulated for a 30-day public review period from October 18 through November 16, 2012. No public agencies submitted comments, except for the California State Clearinghouse to indicate that the City had complied with the State's environmental review process and that no state agencies submitted comments. One organization – Save The Plastic Bag Coalition (SPBC) – submitted an email comment letter with attachments. One Capitola resident – Judy Kishimura – submitted an email comment. The comment letters are attached at the end of this document. It is also noted that the some of the attachments to the SPBC email are not referenced by the SPBC in its email comments.

The comments raise objections to the proposed ordinance, but do not specifically address the Initial Study and Negative Declaration. The California State CEQA Guidelines (section 15074) do not require preparation of written responses to comments on a Negative Declaration or Mitigated Negative Declaration, but requires the decision-making body of the lead agency to consider the Negative Declaration together with any comments received during the public review process. Section 15204(b) and (c) of the State CEQA Guidelines provide standards for review of negative declarations as follows:

- (b) In reviewing negative declarations, persons and public agencies should focus on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should:
  - (1) Identify the specific effect,
  - (2) Explain why they believe the effect would occur, and
  - (3) Explain why they believe the effect would be significant.
- (c) Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence.

None of the comments received address environmental issues. However, the comments are summarized below, and responses are provided where relevant to environmental issues. Other issues are addressed in the December 13, 2012 Staff Report for the proposed ordinance.

## II. SUMMARY OF COMMENTS

The following comments are not related to CEQA environmental issues, although a brief response is offered for some comments.

1. **Objection to Paper Bag Fee.** The email from the Capitola resident indicates that the commenter has no issue with the idea of banning plastic bags, but the commenter is opposed to a charge on single-use paper bags, and the commenter suggests that retailers provide a discount to customers who bring their own bags.

As discussed on pages 12 to 13 of the Initial Study, most jurisdictions that have adopted similar ordinances have included a charge for single-use paper bags to deter customers away from the single use paper bags. This is based on studies conducted throughout the nation and world that have documented a shift to increased use of reusable bags as a result of the charge. As discussed in the Initial Study, the impacts of a single-use paper bag (including all of its life cycle) are greater than a single-use plastic bag at a one-to-one ratio. These impacts are summarized on pages 10-13 of the Initial Study (including Table 1) and discussed in specific sections of the Initial Study. However, as discussed on page 9 of the Initial Study, the environmental analysis assumes that 65% of shoppers will switch to reusable bags based on estimates developed by the County of Santa Cruz after its review of use trends and experience in other areas as a result of imposition of bag charge, and as a result, no significant impacts were identified.

The amount of the paper bag charge will be determined by the Capitola City Council at the time it considers the ordinance for adoption. Most of the regulations reviewed showed that charges ranged from at least 10 cents to about 20 cents per bag, although Washington D.C. enacted a five cent charge. A 2012 review by Californians Against Waste found that 46 cities and counties in the state had enacted a 10-cent charge per bag, while one county (Marin) enacted a minimum five cent charge and six cities enacted no charge. Some of the cities that enacted no charge also required that a paper bag be 100% recyclable with at least a 40% post-consumer recycled content.

2. **Restaurant Bags.** The Save the Plastic Bag Coalition (SPBC) objects to an ordinance banning plastic bags and regulating the materials used in paper bags at restaurants and other food facilities. Under Capitola's proposed ordinance, restaurants are excluded from provisions of the ordinance as indicated in the definition of restaurant in section 8.07.020. Section 8.07.030(F) also has been revised as discussed below.
3. **Other Ordinance Objections.** The SPBC comment letter raises objects to section 8.07.030(F) as being "unconstitutionally vague." The comment letter does not explain why the commenter feels the subject section is unconstitutional nor does the comment letter identify specific areas where additional clarity is required. The subject section specifically identifies bags that are not subject to the regulations of the proposed ordinance. In response to the SPBC comment, Section 8.07.030(F) is revised in the final proposed ordinance to read:

"The ban on single-use plastic bags and the charge on single-use paper bags shall not apply to restaurants, or to bags that are integral to the packaging of the product, or bags without handles provided to the

Customer (i) to transport produce, bulk food, pharmacy products or meat from a department within a Retail Store to the point of sale, or (ii) to segregate food merchandise that could damage or contaminate other food or merchandise when placed together in a Reusable Bag or Single Use Paper Bag. plastic or paper bags used to protect produce, meat, or otherwise used to protect items as they are put into a carryout bag at checkout. Other examples include: paper bags to protect bottles, plastic bags around ice cream or other wet items, paper bags used to weigh candy, paper pharmacy bags or paper bags to protect greeting cards."

The SPBC email questions the finding in section 8.07.010 of the draft ordinance (#7), which states that Californians pay up to \$200 per household each year in state and federal taxes to clean up litter and waste associated with single-use bags, and that there is no basis for this. This finding has been deleted from the final proposed ordinance.

### III. COMMENT LETTERS

The following public comments are presented in the following pages:

1. California State Clearinghouse
2. Judy Kiishimura
3. Save the Plastic Bag Coalition (With Email Attachments)



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX  
DIRECTOR

November 19, 2012

**RECEIVED**  
NOV 21 2012  
CITY OF CAPITOLA

Lisa Murphy  
City of Capitola  
420 Capitola Avenue  
Capitola, CA 95010

Subject: Single-Use Bag Reduction Ordinance  
SCH#: 2012102042

Dear Lisa Murphy:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. The review period closed on November 16, 2012, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

**Document Details Report**  
**State Clearinghouse Data Base**

**SCH#** 2012102042  
**Project Title** Single-Use Bag Reduction Ordinance  
**Lead Agency** Capitola, City of

**Type** Neg Negative Declaration

**Description** The project consists of an ordinance to add Chapter 8.07 to the City of Capitola Municipal Code to reduce single-use plastic and paper bags, commonly referred to as "carryout" bags. As stated in the draft ordinance, the intent is to eliminate the common use of plastic single-use carryout bags, to encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general. The project would ban the use of single use plastic carryout bags by any retail establishment (with specified exceptions, including restaurants), require that all paper carryout bags have a minimum of 40% post-consumer recycled content, require retail establishments to impose a charge for each single-use paper carryout bag provided to customers at the point of sale, and encourage retail establishments to make reusable bags available for sale to customers at a reasonable price.

**Lead Agency Contact**

**Name** Lisa Murphy  
**Agency** City of Capitola  
**Phone** (831) 475-7300 **Fax**  
**email**  
**Address** 420 Capitola Avenue  
**City** Capitola **State** CA **Zip** 95010

**Project Location**

**County** Santa Cruz  
**City** Santa Cruz  
**Region**  
**Lat / Long**  
**Cross Streets** City-wide  
**Parcel No.**  
**Township**

**Range** **Section** **Base**

**Proximity to:**

**Highways** Hwy 1  
**Airports**  
**Railways**  
**Waterways** Soquel Creek, Monterey Bay  
**Schools**  
**Land Use** Applies to retail establishments throughout the City.

**Project Issues** Aesthetic/Visual; Air Quality; Biological Resources; Forest Land/Fire Hazard; Solid Waste; Traffic/Circulation; Water Quality; Water Supply; Landuse

**Reviewing Agencies** Resources Agency; California Coastal Commission; Department of Fish and Game, Region 3; Department of Parks and Recreation; Department of Water Resources; Resources, Recycling and Recovery; California Highway Patrol; Caltrans, District 4; Regional Water Quality Control Board, Region 4; Native American Heritage Commission

**Date Received** 10/18/2012 **Start of Review** 10/18/2012 **End of Review** 11/16/2012



-----Original Message-----

From: K Judy [mailto:jjkish@gmail.com]  
Sent: Monday, November 05, 2012 2:45 PM  
To: Murphy, Lisa  
Subject: RE: Chapter 8.07 - Single use bag reduction ordinance

Lisa Murphy,

In regards to the proposed "Single-use bag reduction ordinance", I have the following comments:

OPPOSED TO SINGLE-USE BAG FEE

I have no issue with the idea of banning plastic bags and I support the proposal to require paper bags to contain a minimum of 40% post-consumer recycled content. However, I am OPPOSED to the requirement that retailers impose a charge for each single-use paper bag.

OFFER DISCOUNT FOR REUSABLE BAGS

I whole heartedly support the goal of reducing the consumption of single use bags, but instead of implementing a "negative reinforcement" approach, I strongly encourage the adoption of a more "positive reinforcement" tactic. In other words, instead of charging consumers a fee for each single-use bag, might it be just as effective if consumers were offered a discount for each reusable bag supplied? This approach has been in use by Save Mart Supermarket, and it has been effective in helping me to remember my reusable bags.

LOST SALES DUE TO BAG FEES

Although Retailers might find the idea of being able to charge consumers for carry-out bags appealing, they should understand that there is the potential to lose sales because of a bag fee. Although I personally make a concerted effort to always shop with my reusable bags, there are times when I do forget them at home. When this happens, and I'm out shopping, I find myself opting to shop in Capitola instead of Soquel, solely because of the bag fee. For example, I have opted to shop at Nob Hill or Save Mart instead of Safeway, and have consciously chosen OSH over Home Depot, due to the bag fees. Consequently, I am proof positive that the bag fee in Santa Cruz and Soquel has had a negative impact on their sales (and a positive impact on Capitola's sales).

COMMUNITY, NOT RETAILS, SHOULD BENEFIT FROM BAG FEES

In general, I oppose the single use bag fee because the cost of carry out bags should be covered by the retailer, as part of the cost of doing business. It should not be used to increase their gross revenue. However, if such a fee must be mandated for the sole purpose of reducing the number of single-use paper bags consumed, I would be supportive if the money collected somehow benefited the community. For example, the money (minus a reasonable accounting fee to the retailers) could be added to the city's general fund, or donated to a community charity.

-----Original Message-----

From: Stephen L. Joseph [mailto:savetheplasticbag@earthlink.net]  
Sent: Wednesday, October 31, 2012 11:50 AM  
To: Murphy, Lisa; Goldstein, Jamie; Termini, Mike; Harlan, Stephanie;  
Nicol, Kirby; Norton, Dennis; Storey, Sam  
Subject: Objections to proposed carryout bag ordinance

TO THE CITY OF CAPITOLA AND CITY COUNCIL:

I am counsel for the Save The Plastic Bag Coalition ("STPB"). STPB's members include companies that manufacture plastic bags for restaurants and other food facilities. Hundreds of people are employed in California manufacturing such bags. Their livelihoods are dependent on continuing to supply them to restaurants and other food facilities.

Plastic bags produced by our members in California are marketed and supplied to restaurants and other food facilities in the City of Capitola. The bags are used for take-out food and beverages.

STPB hereby objects to an ordinance banning plastic bags and regulating the materials used in paper bags at restaurants and other food facilities. Any such ban is preempted and prohibited by the California Retail Food Code. Our supporting legal memorandum is attached and incorporated in this objection by reference.

STPB is acting on behalf of its members and in the public interest.

For your information, the County of Santa Cruz and the City of Santa Cruz have banned plastic carryout bags at restaurants and other food facilities. We have sued both the County and the City of Santa Cruz. Copies of our lawsuits are attached.

The City of Carpinteria passed an ordinance banning plastic bags at restaurants and regulating the materials used in paper bags at restaurants. The Santa Barbara Superior Court ruled that the ordinance was preempted and prohibited by the California Retail Food Code. A copy of the ruling is attached. The Carpinteria ordinance has been repealed as to restaurants and other food facilities and the city paid our attorney's fees and costs.

The San Francisco Superior Court has issued a contrary ruling. However, the San Francisco ruling is clearly incorrect and we will be filing an appeal.

If the City of Capitola adopts an ordinance that bans plastic bags and regulates the materials used in paper bags at restaurants and other food facilities, we will file a lawsuit in the Santa Cruz Superior Court to invalidate the ordinance. We will also request costs and an award of attorney's legal fees pursuant to Code of Civil Procedure section 1021.5. We will also request a stay of the ordinance.

STPB also objects to section 8.07.030(F) of the draft ordinance as it is unconstitutionally vague. This is one of the causes of action in our lawsuit against Santa Cruz County and it will be a cause of action in our lawsuit against the City of Capitola unless it is removed.

STPB will be making further objections to other aspects of the initiative, including the false and untrue findings in section 8.07.010 of the draft ordinance. For example, the allegation that "Californians

pay up to \$200 per household per year in State and Federal tax for "clean up litter and waste associated with single-use bags" is an absurd fabrication and myth and there is no basis for it. **Item #: 9.B. Attach 1.pdf**

I have attached a copy of a brief that we filed in the Court of Appeal in our case against Marin County. Marin County made the same absurd allegation about the \$200 per household cost. Our response to the allegation is at pages 30-33 of the brief and is the basis for our objection to the finding in the draft Capitola ordinance. Please read it carefully before seriously misleading the citizens of Capitola about this important issue.

STPB also objects to the fact that stores will not be required to display prominent notices telling people about the paper bag charge.

Please ensure that I am on the mailing list for all CEQA and other notices regarding the ordinance, including but not limited to notices of any City Council meetings and agenda packets.

CEQA objections may be made at a later date. All rights are reserved.

Regards,

Stephen L. Joseph, Counsel  
SAVE THE PLASTIC BAG COALITION  
350 Bay Street, Suite 100-328  
San Francisco, CA 94133  
Phone: (415) 577-6660  
Fax: (415) 869-5380  
Website: [www.savetheplasticbag.com](http://www.savetheplasticbag.com)  
E-mail: [savetheplasticbag@earthlink.net](mailto:savetheplasticbag@earthlink.net)

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## Types of Burns

The following are common types of burns:

- chemical burns
- electrical burns
- thermal burns

### Chemical burns

Chemical burns are tissue damage caused by exposure to a strong acid or alkali, such as phenol, creosol, mustard gas or phosphorus.

Chemical burns result from the conversion of chemical energy to thermal energy. Emergency treatment includes washing the surface of the wound with large amounts of water to remove the chemical. As long as the chemical is in contact with the skin, the burn usually continues to progress.

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### Electrical burns

An electrical injury occurs when an electrical current from an external source runs through the body as heat. Electrical burns are the result of tissue damage from heat of up to 5,000 degrees Celsius generated by an electric current. The heat causes extensive damage and usually follows the current, but it can damage other structures such as muscle and bone. This electrical current usually flows along the blood vessels and nerves.

This type of electrical current can cause the following three burns:

- contact burn injury
- flash burn
- flame burn

The points of entrance and exit on the skin are burned, along with the muscle and subcutaneous tissues through which the current passes. It is possible that fatal cardiac arrhythmia may result. In this situation contact your local burn center or emergency room immediately.

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## Make an Appointment

To make a new patient appointment or find out more information about the Burn Center at Shands at the University of Florida, please call 352.265.0943 .

You may also email our Consultation Center ([consult@shands.ufl.edu](mailto:consult@shands.ufl.edu)) or use our secure online form.

**Thermal burns**

Thermal burns are the most common types of burns. These often occur from residential fires, automobile accidents, playing with matches, improperly stored gasoline, space heaters, electrical malfunctions, or arson.

**Flame burns** are often deep burns, causing partial- to full-thickness burns.

**Hot liquid burns** are not as deep as flame burns, but they can still produce deep burns. Examples of hot liquids which can cause burns include hot water, coffee, grease and hot soup.

Burns from **touching hot objects** vary in depth, since people's reflexes cause them to react quickly. These burns can be caused by touching a stove, skillet or grill.

**Flash injuries** are burns that involve exposed parts of the skin and vary in depth depending on the proximity on the flash and the intensity. Automobile, gas tank and airplane explosions are causes of flash burns.

**Sunburns** can be extremely painful, but the pain is relieved as the wound is soothed and injury progression is stopped. Sunburns are usually superficial burns or first-degree burns.

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Saint Francis

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## Bothin Burn Center

### Safety Facts on Scalding Injuries

#### Hot Liquids Burn Like Fire

Hot liquids can cause life threatening burn injuries and are the leading cause of burn injuries in children under the age of 4 years. The experts in burn treatment at Saint Francis Memorial Hospital's Both Burn Center want you to know:

- Scalds and burn accidents frequently occur when parents or caregivers are in a hurry, angry, or under a lot of pressure or stress
- Coffee, tea, soup and hot tap water can be hot enough to cause serious burn injury
- Scald and steam burns are often associated with microwave oven use
- When tap water reaches 140 degrees Fahrenheit, it can cause a third degree (full thickness) burn in just five seconds
- Hot tap water accounts for 17% of all childhood scald hospitalizations
- 60-70% of all pediatric patients seen in the Bothin Burn Center have a scald injury.

The Bothin Burn Center staff recommends you take the following steps to prevent scald injuries:

- Provide continuous supervision of children in the kitchen and bathroom
- Keep all hot liquids at a safe distance from children - keep pot handles turned toward the back of the stove
- Test all heated liquid/food before giving it to a child or placing it within his/her reach
- Never hold a child while drinking a hot liquid
- Purchase appliances with short cords, and keep all cords from dangling over counter edges
- Before placing a child into the bath or getting into the tub yourself, test the temperature of the water by moving your hand rapidly through the water for several seconds. The temperature should not exceed 100 degrees Fahrenheit (a child's delicate skin burns more quickly than an adult's).
- Never leave a child unattended in the bathroom or tub
- Use extreme caution bathing a child in a kitchen sink with a single-lever faucet - these are easy for a child to turn on
- Adjust your thermostat setting on your water heater to produce a water temperature of 120-125 degrees or less

#### HOT WATER CAUSES THIRD DEGREE BURNS:

- in 1 second at 156 degrees
- in 2 seconds at 149 degrees
- in 5 seconds at 140 degrees
- in 15 seconds at 133 degrees

If you have questions regarding burn care or treatment, call the Bothin Burn Center staff at **(415) 353-6255**.

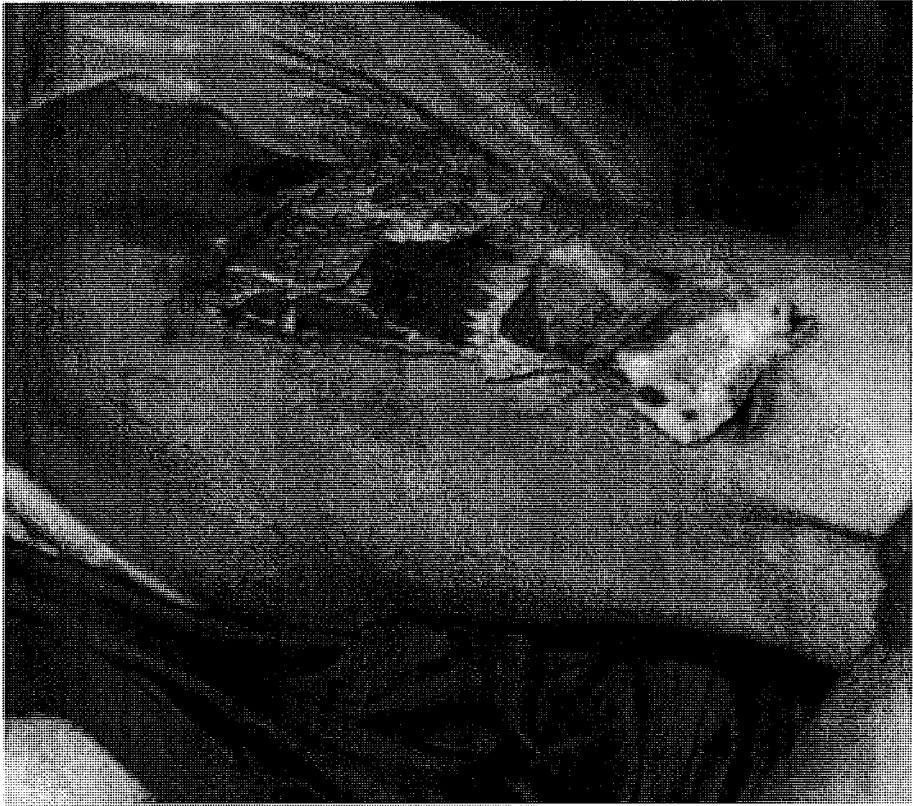
**WARNING**


**THE FOLLOWING PAGES  
CONTAIN PHOTOGRAPHS  
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**Law**  
**Subway Soup Severely Burns Woman, Lawsuit Claims**

By Victoria Bekiempis Sat., Sep. 10 2011 at 10:15 AM  
Categories: Law

Comments (15) 

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Claudia Vargas, 23, says she was burned by soup.

A Miami-Dade woman says that the soup she bought from Subway scalded her thigh, hip, and buttocks so extensively that she had to rush to the hospital -- and undergo emergency treatment for second-degree burns, according to a recently filed lawsuit.

On July 30, Claudia Vargas purchased soup and a sub from the Hollywood sandwich store, located at 6582 Taft St.

When she returned to her car, she tried to take the soup out of the bag. But the container was too full and the lid was not attached correctly, so the soup spilled on her lap, Vargas says.

Because the soup was extremely hot, 23-year old Vargas says that she suffered from second-degree burns that will leave her with permanent scarring.

The Pulp has acquired a photo of Vargas' injuries, but has posted it after the jump because of the disturbing nature of the image.

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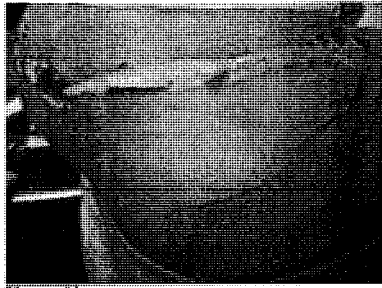
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Vargas' burns.

Richard Lydecker, the lawyer representing Subway, says that his client did nothing wrong.

"The investigation is still ongoing, but this soup was not any hotter than soup served normally," Lydecker tells the Pulp. "There was nothing special about this soup."

Lydecker insists that the soup was cooked and served at a reasonable temperature.

"I mean, soup is hot. And people want their soup hot. You're not supposed to spill it on yourself. My client just wanted to serve a good tasting, hot soup. He looks forward to exonerating himself in court."

Still, Vargas stands by her claim, and insists that Subway was negligent in how it prepped, marketed, and served her the soup.

Medical records furnished to the Pulp by Vargas' representative confirm that Vargas had to go to the emergency room after the accident, where she was given antibiotics, a tetanus shot, and topical ointment for the wounds.

A plastic surgeon who examined Vargas shortly after the accident has said that chances for full recovery are grim: The burns will take at least 6 months to heal. And, "despite laser intervention, the patient will always have some residual scarring," medical documents note.

Vargas thinks that this could have been avoided if Subway hadn't served overly hot soup -- or if she'd had some kind of warning that the soup would be scalding and hazardous.

Vargas is suing Subway, in hopes of getting money for her medical bills.

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**Tags:** lawsuit, sandwiches, soup, stew, Subway

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**TENTATIVE RULING****Judge Thomas Anderle****Department 3 SB-Anacapa****1100 Anacapa Street****P.O. Box 21107****Santa Barbara, CA 93121-1107****CIVIL LAW & MOTION****Save the Plastic Bag Coalition vs City of Carpinteria**

<b>Case No:</b>	1385674
<b>Hearing Date:</b>	Tue May 15, 2012 9:30

**Nature of Proceedings:** Demurrer

Demurrer of City of Carpinteria to Complaint

Ruling:

For the reasons set forth herein, the demurrer of defendant City of Carpinteria to the complaint is overruled. Defendant shall file and serve its answer to the complaint on or before May 25, 2012.

Background:

On March 12, 2012, the City of Carpinteria adopted Ordinance No. 655 (the "Ordinance"), enacting chapter 8.51 in the Carpinteria Municipal Code entitled "Single-Use Bag Regulations."

"The purpose of these provisions is to promote:

"A. The protection of unique coastal resources found in Carpinteria and identified for protection in policies of the City's General Plan/Local Coastal Plan, including the Carpinteria 'El Estero' Salt Marsh, Beaches, Tidelands, and Offshore Reefs, Harbor Seal Hauling Grounds, and Creekways and Riparian Habitat;

"B. Compliance with federal and state mandates for Clean Water (including National Pollutant Discharge Elimination System Permit Program and waste stream reduction (AB 939 and AB 341));

"C. A reduction in the amount of plastic and paper material that is manufactured, transported, handled/processed, and discarded, and the impacts associated with such activities.

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“D. A reduction in the amount of waste/debris in City parks, public open spaces, creeks, estuary, tidelands and the ocean, and the amount of material going to landfills;” (Carpinteria Mun. Code, § 8.51.020.)

The Single-Use Bag Regulations prohibit the dispensing of single-use bags as follows:

“A. Commencing on July 11, 2012 large commercial establishments are prohibited from dispensing to any customer at the point of sale a single-use bag.

“B. Commencing on April 11, 2013 small commercial establishments are prohibited from dispensing to any customer at the point of sale a single-use bag, except gift bags or paper bags, as defined in this chapter.” (Carpinteria Mun. Code, § 8.51.040.)

Under the Single-Use Bag Regulations, a “‘Large Commercial Establishment’ is a commercial establishment with over \$5,000,000 in annual gross retail sales volume” or is a grocery store of greater than 500 square feet in area. (Carpinteria Mun. Code, § 8.51.030, subs. (A), (B), (F).) A “‘Small Commercial Establishment’ is a food provider or a commercial establishment that does not qualify as a large commercial establishment.” (§ 8.51.030, subd. (C).) “Food providers” include restaurants. (§ 8.51.030, subd. (D).)

When the prohibitions become effective, both large and small commercial establishments are prohibited from dispensing “a single-use bag” “at the point of sale.”

“‘Single-Use Bag’ means any bag that is provided to customers for carryout purchases by a commercial establishment, excluding gift bags, product bags, and reusable bags ....”

“‘Point of Sale’ means the location in the commercial establishment where purchase is made.”

A “Reusable Bag” is a bag that is “specifically designed and manufactured for multiple reuse” and is made of cloth or other machine washable fabric or is made of other durable material “including plastic that is at least 2.25 mils thick.”

“‘Paper Bag’ means any paper bag that has a post-consumer recycled content of at least 40 percent and is 100 percent recyclable.”

On March 20, 2012, plaintiff Save the Plastic Bag Coalition, an unincorporated association, consisting of suppliers of plastic bags to restaurants and other food facilities in Carpinteria, filed its complaint for invalidation of the Ordinance based upon preemption by the California Retail Food Code. Plaintiff alleges: “[T]he Ordinance is invalid as it bans plastic bags at restaurants and other ‘food facilities’ as defined by H&S Code § 113789. The Ordinance intrudes into an area that the State of California has reserved to itself.”

Defendant City of Carpinteria (“City”) demurs to plaintiff’s complaint. City argues that plaintiff does not state a cause of action in its complaint because the Ordinance is not preempted by the Retail Food Code. Plaintiff opposes the demurrer, arguing that the California Supreme Court in *California Grocers Assn. v. City of Los Angeles* (2011) 52 Cal.4th 177 explained the scope of preemption by the Retail Food Code as including “how food should be handled or transported” and that the Ordinance is therefore preempted.

## Analysis:

“The function of a demurrer is to test the sufficiency of the complaint alone and not the evidence or other extrinsic matters.” (Ingram v. Flippo (1999) 74 Cal.App.4th 1280, 1283.) “We treat the demurrer as admitting all material facts properly pleaded, but not contentions, deductions or conclusions of fact or law. [Citation.] We also consider matters which may be judicially noticed. [Citation.] Further, we give the complaint a reasonable interpretation, reading it as a whole and its parts in their context. [Citation.]” (Evans v. City of Berkeley (2006) 38 Cal.4th 1, 6, internal quotation marks omitted.) “If the complaint states a cause of action under any theory, regardless of the title under which the factual basis for relief is stated, that aspect of the complaint is good against a demurrer.” (Quelimane Co. v. Stewart Title Guaranty Co. (1998) 19 Cal.4th 26, 38.)

## Request for Judicial Notice

City requests that the court take judicial notice of four documents: (Exhibit A) the Ordinance; (Exhibit B) a copy of the City’s Staff Report for City Council Meeting on December 12, 2011; (Exhibit C) a copy of the City’s Staff Report for City Council Meeting on February 27, 2012; and (Exhibit D) a copy of the City’s Staff Report for City Council Meeting on March 12, 2012. The court will grant City’s request as to Exhibit A, the Ordinance, which is also attached as exhibit A to plaintiff’s complaint. (Evid. Code, § 452, subs. (b), (c).)

Plaintiff objects to judicial notice being taken of exhibits B, C and D. City states that the purpose for its request for judicial notice of these exhibits is that the “Staff Reports will assist the Court in interpreting the intent of City Council in adopting the single-use bag regulations.” (RJN, at p. 2.) The court notes that city staff reports may, like other legislative history, be the subject of judicial notice to ascertain the purpose of the legislative enactment. (Bravo Vending v. City of Rancho Mirage (1993) 16 Cal.App.4th 383, 404-405.) However, the purpose of the Ordinance, to the extent it is relevant, is stated in the Ordinance directly. This stated purpose is not disputed by plaintiff in this demurrer. The staff reports elaborate on this stated purpose, but the staff reports do not provide any additional material that is relevant or useful to the court’s disposition of this demurrer. The City’s request for judicial notice of exhibits B, C and D will be denied. (See Mangini v. R. J. Reynolds Tobacco Co. (1994) 7 Cal.4th 1057, 1063.)

## Plaintiff’s Cause of Action

Plaintiff styles its complaint as seeking “invalidation of plastic bag ban ordinance based on state retail food code for preemption; request for declaratory and injunctive relief.” (Complaint, at p. 1, capitalization altered.) In its prayer for relief, the first remedy plaintiff seeks is a “judgment declaring that the Ordinance is invalid as it is preempted and prohibited by the California Retail Food Code.” (Complaint, at p. 9.) Although plaintiff does not expressly cite the statute, it appears from these statements in the complaint that plaintiff seeks declaratory relief pursuant to Code of Civil Procedure section 1060.

“Any person ... who desires a declaration of his or her rights or duties with respect to another, ... may, in cases of actual controversy relating to the legal rights and duties of the respective parties, bring an original action or cross-complaint in the superior court for a declaration of his or her rights and duties in the premises ....” (Code Civ. Proc., § 1060.) “It is well established that parties may seek declaratory relief with respect to the interpretation

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and application of local ordinances.” (Action Apartment Assn., Inc. v. City of Santa Monica (2007) 41 Cal.4th 1232, 1250.)

“A complaint for declaratory relief is legally sufficient if it sets forth facts showing the existence of an actual controversy relating to the legal rights and duties of the respective parties ... and requests that these rights and duties be adjudged by the court.” (Maguire v. Hibernia Sav. & Loan Soc. (1944) 23 Cal.2d 719, 728.) “If these requirements are met, the court must declare the rights of the parties whether or not the facts alleged establish that the plaintiff is entitled to a favorable declaration.” (Tiburon v. Northwestern P. R. Co. (1970) 4 Cal.App.3d 160, 170.)

### The California Retail Food Code

Plaintiff’s complaint alleges that the Ordinance is invalid because it is preempted by the California Retail Food Code, Health and Safety Code section 113700 et seq. The Retail Food Code’s preemption provision is set forth in Health and Safety Code section 113705, which provides:

“The Legislature finds and declares that the public health interest requires that there be uniform statewide health and sanitation standards for retail food facilities to assure the people of this state that the food will be pure, safe, and unadulterated. Except as provided in Section 113709, it is the intent of the Legislature to occupy the whole field of health and sanitation standards for retail food facilities, and the standards set forth in this part and regulations adopted pursuant to this part shall be exclusive of all local health and sanitation standards relating to retail food facilities.”

Section 113709 provides narrow exceptions: “This part does not prohibit a local governing body from adopting an evaluation or grading system for food facilities, from prohibiting any type of food facility, from adopting an employee health certification program, from regulating the provision of consumer toilet and handwashing facilities, or from adopting requirements for the public safety regulating the type of vending and the time, place, and manner of vending from vehicles upon a street pursuant to its authority under subdivision (b) of Section 22455 of the Vehicle Code.” By their terms, these exceptions do not apply to the Ordinance as challenged by plaintiff in its complaint.

Plaintiff argues, and City does not appear to contest, that “retail food facilities” as defined by the Retail Food Code include “food providers” as defined in the Ordinance. (Health & Saf. Code, § 113789, subd. (a); Carpinteria Mun. Code, § 8.51.030, subd. (D).) Plaintiff cites to a number of provisions in the Retail Food Code to demonstrate that the Retail Food Code regulates the single-use bags prohibited by the Ordinance, including:

“‘Single-use articles’ mean utensils, tableware, carry-out utensils, bulk food containers, and other items such as bags, containers, placemats, stirrers, straws, toothpicks, and wrappers that are designed and constructed for one time, one person use, after which they are intended for discard.” (Health & Saf. Code, § 113914.)

“Single-use articles shall not be reused.” (Health & Saf. Code, § 114081, subd. (d).)

“Materials that are used to make single-use articles shall not allow the migration of deleterious substances or impart colors, odors, or tastes to food, and shall be safe and clean.” (Health & Saf. Code, § 114130.2.)



“‘Utensil’ means a food-contact implement or container used in the storage, preparation, transportation, dispensing, sale, or service of food, such as kitchenware or tableware that is multiuse, single-service, or single-use, gloves used in contact with food, temperature sensing probes of food temperature measuring devices, and probe-type price or identification tags used in contact with food.” (Health & Saf. Code, § 113934.)

Because plastic bags are used in the transportation of food, plaintiff argues, these above-quoted sections apply to preempt local standards, including an outright ban, on plastic bags.

### The California Grocers Case

Both parties cite to the California Supreme Court’s decision in *California Grocers Assn. v. City of Los Angeles*, supra, 52 Cal.4th 177 as supporting their respective arguments. At issue in *California Grocers* was an ordinance adopted by the City of Los Angeles that required grocery stores of a specific size that undergo a change of ownership to retain current employees and take certain actions during a 90-day transition period. Plaintiff California Grocers Association filed an action seeking to invalidate the ordinance on various grounds, including preemption under the Retail Food Code. The trial court and the court of appeal agreed that the ordinance was preempted by the Retail Food Code. The Supreme Court, however, reversed, finding no preemption.

In reaching this conclusion, the Supreme Court began its discussion of preemption under the Retail Food Code by stating general principles:

“Local ordinances and regulations are subordinate to state law. [Citation.] Insofar as a local regulation conflicts with state law, it is preempted and invalid. [Citations.] ‘A conflict exists if the local legislation “duplicates, contradicts, or enters an area fully occupied by general law, either expressly or by legislative implication.”’ [Citations.]” (*California Grocers*, supra, 52 Cal.4th at p. 188, internal quotation marks omitted.) “Only the last of these bases for conflict, field preemption, is at issue here. ‘Local legislation enters an area “fully occupied” by general law when the Legislature has expressly manifested its intent to fully occupy the area or when it has impliedly done so in light of recognized indicia of intent.’ [Citation.] ... Express field preemption turns on a comparative statutory analysis: What field of exclusivity does the state preemption clause define, what subject matter does the local ordinance regulate, and do the two overlap?” (*Id.* at p. 188.)

The Court then summarized the sweep of preemption under the Retail Food Code: “Thus, the state alone may adopt ‘health and sanitation standards for retail food facilities.’ [Citation.] The remainder of the statutory scheme demonstrates by way of example the precise scope of exclusive state regulation, comprehensively detailing standards for, e.g., employee training on health matters ([Health & Saf. Code], §§ 113947–113947.3), employee health and hygiene (*id.*, §§ 113949–113978), food transportation, storage, and preparation (*id.*, §§ 113980–114057.1), food display and service (*id.*, §§ 114060–114083), food labeling (*id.*, §§ 114087–114094), the design and sanitizing of food preparation areas and utensils (*id.*, §§ 114095–114185.5), and the design and cleanliness of food facilities (*id.*, §§ 114250–114282).” (*California Grocers*, supra, 52 Cal.4th at p. 189, footnote omitted.)

The Court focused upon the scope of the field of exclusivity, rejecting the argument that the purpose in enacting the local ordinance determines preemption: “We may accept for the

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sake of argument that the promotion of health and safety was one of the City's purposes in passing the Ordinance. That the Ordinance is preempted does not, however, follow. Purpose alone is not a basis for concluding a local measure is preempted. While we and the Courts of Appeal have occasionally treated an ordinance's purpose as relevant to state preemption analysis [citations], we have done so in the context of a nuanced inquiry into the ultimate question in determining field preemption: whether the effect of the local ordinance is in fact to regulate in the very field the state has reserved to itself." (California Grocers, supra, 52 Cal.4th at p. 190, footnote omitted.)

Applying these principles, the Court reasoned that the Los Angeles ordinance was not preempted: "The Retail Food Code does not preempt all laws that have as their purpose the promotion of food health and safety; it preempts only those that establish 'health and sanitation standards' for retail food establishments, so as to ensure uniformity for such facilities. [Citation.] The Retail Food Code itself dictates those uniform standards, but does not specify by whom they are to be carried out; as far as state law is concerned, a retail food store may employ whomever it likes, so long as those it employs comply with the state's standards for distributing food in a safe and healthful manner. For its part, the Ordinance ... regulates only who may be hired to engage in certain work, and though it may have been intended in part to reduce violations of state law by those workers, it does not itself add to or subtract from the state's uniform standards of conduct for whoever engages in that work." (California Grocers, supra, 52 Cal.4th at pp. 191-192.) "The Retail Food Code establishes standards for what certain employees, particularly one certified owner or supervising food service employee, must know or be taught, but does not regulate who must be hired; the Ordinance regulates the pool of nonsupervising, nonmanagerial employees from which a new owner temporarily must hire, but imposes no standards concerning what the hired employees must know or be taught about food safety." (Id. at p. 192.)

Both parties find support in the California Grocers opinion. Plaintiff relies upon the statements that the Retail Food Code exclusively governs food transportation, storage, and preparation. City relies upon the statements that no preemption existed because the Los Angeles ordinance imposed no standards concerning health and sanitation. City thus argues that the "Ordinance simply regulates the bags a cashier can provide at check-out, and does not set any health and sanitation standard for retail food facilities." (Demurrer, at p. 10.)

### Purpose of the City's Ordinance

City goes to some length to discuss and argue the importance of the Ordinance in addressing environmental concerns of significant local concern. As discussed above in the context of the request for judicial notice, the Ordinance itself sets forth those concerns as being a basis for its enactment. The stated purpose of the Ordinance is not challenged by plaintiff. However, as California Grocers makes clear, the legal analysis to determine whether or not state law expressly preempts local law depends upon the scope of the state's exclusivity. "To rest preemption analysis solely on considerations of purpose would generate the anomalous circumstance, rejected by the United States Supreme Court, that one jurisdiction's measure might survive preemption, while another identical measure passed in a different jurisdiction might fall, 'merely because its authors had different aspirations.'" (California Grocers, supra, 52 Cal.4th at p. 190, fn. 4, quoting *Shady Grove Orthopedic Associates, P. A. v. Allstate Ins. Co.* (2010) 559 U.S. \_\_\_, \_\_\_ [130 S. Ct. 1431, 1441, 176 L. Ed. 2d 311].)

## Preemption Analysis

Where, as here, the issue is express field preemption, the court must answer three questions: “What field of exclusivity does the state preemption clause define, what subject matter does the local ordinance regulate, and do the two overlap?” (California Grocers, *supra*, 52 Cal.4th at p. 188.)

The field of state preemption defined by the Retail Food Code is “health and sanitation standards for retail food facilities.” (Health & Saf. Code, § 113705.) “[T]he standards set forth in this part ... shall be exclusive of all local health and sanitation standards relating to retail food facilities.” (Ibid.)

The subject matter of the Ordinance is the prohibition of dispensing to consumers at the point of sale a single-use bag, as defined therein. (Carpinteria Mun. Code, § 8.51.040.)

The final question then is whether the state’s health and sanitation standards for retail food facilities overlap the City’s prohibition of dispensing plastic bags. Plaintiff argues that there is overlap between the Ordinance’s prohibitions and the Retail Food Code because the state alone may regulate “food transportation, storage, and preparation,” “how food should be handled or transported,” and “food display and service.” These statements, repeated from California Grocers, are accurate generalizations, but are not sufficient by themselves to determine overlap. (See *Big Creek Lumber Co. v. County of Santa Cruz* (2006) 38 Cal.4th 1139, 1152-1157 [extent of the field of express preemption determined by scope and interpretation of preempting statutes].) Instead, the question of overlap can be most simply addressed by determining in the first instance whether both the Retail Food Code and the Ordinance contain standards that regulate point of sale bags.

Point of sale bags fall within two definitions set forth in the Retail Food Code. The Retail Food Code defines a “utensil” as “a food-contact implement or container used in the storage, preparation, transportation, dispensing, sale, or service of food.” (Health & Saf. Code, § 113934.) A bag is a container. (Webster’s 3d New Internat. Dict. (1986) p. 162 [definition of “bag”].) A point of sale bag, as discussed herein, is used in the sale of food. Thus, at least to the extent there is “food-contact,” a point of sale bag is a “utensil.” For example, if a customer bought an apple and the seller put the apple in a plastic bag at the point of sale for transportation of the apple home, that bag would be a “utensil” under the Retail Food Code. At the same time, the bag, if made of single-use plastic, would be a “single-use bag” as defined and prohibited by the Ordinance.

A wrinkle in this example of buying an apple is the timing and purpose of the use of the bag. The Ordinance excludes “product bags” from the definition of “single-use bag.” (Carpinteria Mun. Code, § 8.51.030, subd. (K).) A “Product Bag” is “any bag provided to a customer within a commercial establishment for the purposes of transporting items to the point of sale.” (Id., subd. (H).) If the apple in the above example is first put into a bag and that bag is given to the customer to take to the cashier (i.e., the point of sale), that bag would be a “product bag” and not prohibited by the Ordinance even if the bag were made of plastic. However, if at the point of sale the product bag were placed inside another single-use bag, the outer bag would be subject to the prohibitions of the Ordinance, but the inner bag would not.

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The second definition applicable to point of sale bags is “single-use articles.” The Retail Food Code defines “single-use articles” as “utensils, tableware, carry-out utensils, bulk food containers, and other items such as bags, containers, placemats, stirrers, straws, toothpicks, and wrappers that are designed and constructed for one time, one person use, after which they are intended for discard.” (Health & Saf. Code, § 113914.) The bag used to carry the apple in the first example would qualify as a “utensil” and therefore that single-use bag would fall within the definition of “single-use articles.”

The definition of “single-use articles” encompasses more items than “utensils” and specifically includes “bags.” (Health & Saf. Code, § 113914.) “Utensil,” as defined in Health and Safety Code section 113934, is by its terms limited to items in contact with food. However, “single-use articles” include items such as “placemats” which by their nature do not necessitate direct or immediate contact with food. Moreover, placemats, like plastic bags dispensed by restaurants, mitigate the impact of post-sale food spillage. (See Complaint, ¶¶ 21-24.) Consequently, the definition of “single-use articles” is sufficiently broad to include single-use bags dispensed by food providers at the point of sale.

The Retail Food Code provides standards for materials that are used to make single-use articles, namely, that the materials must be safe, clean and do not affect the food. (Health & Saf. Code, § 114130.2.) Thus, for example, it would be a violation of the Retail Food Code if the type of plastic used in a bag gave off a noxious odor permeating the food contained in the bag.

The Ordinance also provides standards for materials that used to make “single-use bags.” Where the Retail Food Code states its standards both affirmatively (safe and clean) and negatively (may not impart colors, odors or tastes to food), the Ordinance provides standards only negatively: No “single-use bags” may be dispensed by small establishments except for gift bags and paper bags. “‘Paper bag’ means any paper bag that has a post-consumer recycled content of at least 40 percent and is 100 percent recyclable.” (Carpinteria Mun. Code, § 8.51.030, subd. (I).) The effect of the Ordinance is to regulate the materials used to make “single-use bags” by permitting some materials and by prohibiting other materials.

Returning to the central question of whether there is overlap between the Retail Food Code and the Ordinance, the above discussion demonstrates that in some respects the Ordinance provides standards for materials used in statutorily defined “single-use articles” that are different from the standards provided in the Retail Food Code. Under the Ordinance, single-use plastic bags are never allowed; paper bags are allowed only if they contain sufficient post-consumer recycled content. The Retail Food Code allows single-use plastic bags and paper bags, but only if the materials used in those bags meet the qualitative requirements set forth in the statute. Consequently, the Retail Food Code and the Ordinance contain overlapping standards for acceptable materials used in making “single use articles.”

In order to state a cause of action for declaratory relief, plaintiff must allege a justiciable controversy. The court concludes that plaintiff has alleged a substantial controversy as to whether the Ordinance is in some part preempted by the Retail Food Code. Plaintiff has therefore adequately alleged a cause of action for declaratory relief and the City’s demurrer will be overruled.

The Extent of This Disposition

The court must emphasize that City's demurrer raises the issue only of whether or not plaintiff has alleged a judicially recognizable cause of action. The court's determination that plaintiff has sufficiently alleged a cause of action does not determine whether plaintiff is ultimately entitled to a favorable declaration. The court notes, for example, that neither party has argued or provided legislative history that may shed further light on the intended scope of preemption set forth in the Retail Food Code.

The court recognizes that the parties argue important public policy questions regarding health, safety and the environment in support of their respective positions. Public policy choices, such as whether or not a plastic bag ban is a good idea, are inherently legislative decisions made in the political process and are not judicial decisions to be made in court. "[T]he judicial role in a democratic society is fundamentally to interpret laws, not to write them." (*California Teachers Assn. v. Governing Bd. of Rialto Unified School Dist.* (1997) 14 Cal.4th 627, 633; internal quotation marks and citation omitted.) As a consequence, "[c]ourts do not sit as super-legislatures to determine the wisdom, desirability or propriety of statutes enacted by the Legislature." (*Estate of Horman* (1971) 5 Cal.3d 62, 77.) The court's role here is strictly limited to applying the law to this controversy.

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6 SAVE THE PLASTIC BAG COALITION

7  
8 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
9 FOR THE COUNTY OF SANTA CRUZ

10 SAVE THE PLASTIC BAG COALITION, ) Case No. CV 175460  
11 an unincorporated association, )  
12 Plaintiff, ) **VERIFIED COMPLAINT FOR**  
13 v. ) **DECLARATORY AND INJUNCTIVE**  
14 ) **RELIEF INVALIDATING AND**  
15 ) **PROHIBITING IMPLEMENTATION OF**  
16 ) **ORDINANCES BANNING PLASTIC**  
17 ) **CARRYOUT BAGS**  
18 )  
COUNTY OF SANTA CRUZ, a political )  
subdivision of the State of California; and )  
DOES 1-10, inclusive, )  
Defendants. )

19 Plaintiff, SAVE THE PLASTIC BAG COALITION, alleges as follows:

20 **PARTIES AND JURISDICTION**

21 1. Plaintiff SAVE THE PLASTIC BAG COALITION is an unincorporated  
22 association.

23 2. Defendant COUNTY OF SANTA CRUZ (the "County") is a political  
24 subdivision of the State of California.

25 3. This is an action to invalidate and set-aside, and prohibit implementation and  
26 enforcement of County Ordinances Nos. 5103 and 5138. True and correct copies thereof are  
27 attached hereto as Exhibits A and C respectively and incorporated herein by reference.

28 4. Plaintiff seeks a declaratory judgment that Ordinance Nos. 5103 and 5138 are

1 invalid and void as they are preempted and prohibited by the California Retail Food Code (as  
 2 alleged in the First Cause of Action herein) and void for vagueness under the U.S. Constitution  
 3 (as alleged in the Second Cause of Action herein). Plaintiff also requests preliminary and  
 4 permanent injunctive relief to prevent Ordinance No. 5138 from being implemented and taking  
 5 effect.

6 5. Plaintiff is ignorant of true names and capacities of DOES named herein as  
 7 DOES 1-10, inclusive, and therefore sues said Defendants by such fictitious names. Plaintiff  
 8 will amend this Complaint to allege their true names and capacities when ascertained.

9 6. Plaintiff is informed and believes that at all times relevant to the allegations  
 10 herein, each Defendant, including the DOE Defendants, were the employees, agents, or partners  
 11 of each of the other Defendants, and were at all times acting within the purpose and scope of  
 12 their, agency or partnership, or at the direction of the other Defendants.

13 7. This Court has jurisdiction over the matters alleged herein pursuant to Code Civ.  
 14 Proc. §410.10.

15 8. This Court is the proper forum under Code Civ. Proc. §393(b) and §394.

#### 16 STANDING

17 9. Plaintiff is an unincorporated non-profit campaign association that was formed  
 18 on June 3, 2008.

19 10. Plaintiff's organizational purposes include, but are not limited to, the following:

- 20 A. Responding to misinformation about plastic bags, paper bags, and reusable  
 21 bags.
- 22 B. Ensuring that the impacts of banning plastic bags are made known to  
 23 decision-makers and the public, in the public interest.
- 24 C. Ensuring that cities and counties do not infringe upon and violate the legal  
 25 rights of manufacturers, distributors, retailers, restaurants, consumers, and  
 26 the general public when plastic bags are banned or restricted.

27 11. In fact, the County plastic bag ban is based on entirely false and absurd  
 28 premises, as pointed out in a letter submitted by Plaintiff to the Santa Cruz County Board of

1 Supervisors (the "Board") on September 12, 2012, which is attached hereto as Exhibit E and  
2 incorporated and realleged herein by reference.

3 12. Plaintiff's members include Grand Packaging, Inc. (doing business as  
4 "Command Packaging") which manufactures, markets, and distributes plastic carryout bags to  
5 restaurants and other food facilities in Santa Cruz County, including but not limited to  
6 unincorporated parts of Santa Cruz County.

7 13. Plaintiff maintains a website at [www.savetheplasticbag.com](http://www.savetheplasticbag.com) to respond to  
8 misinformation about plastic bags and to address the impacts of plastic, paper, and reusable  
9 bags, for the benefit of decision-makers and the public.

10 14. This case is filed on behalf of Plaintiff's members, including but not limited to  
11 Command Packaging, and in the public interest.

12 15. Plaintiff has standing as an association to bring this action, because (i) its  
13 members would otherwise have standing to sue on their own behalf; (ii) the interests Plaintiff  
14 seeks to protect in this lawsuit are germane to the organization's purpose; and (iii) neither the  
15 claims asserted herein, nor the relief requested, require participation of the members in this  
16 lawsuit.

17 16. Plaintiff has beneficial interest standing and citizen/public interest standing.

18 17. The California Supreme Court has ruled that Plaintiff has standing in cases of  
19 this nature. (*Save The Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155,  
20 165-170.)

21 **STATEMENT OF FACTS**

22 **The two prior ordinances and the first lawsuit**

23 18. On or about September 6, 2011, the California Restaurant Association submitted  
24 to the Board a written objection to the proposed inclusion of restaurants and other food facilities  
25 in the proposed plastic bag ban which was later adopted as Ordinance No. 5103. A true and  
26 correct copy of the letter is attached hereto as Exhibit D. All of the comments and objections  
27 stated and asserted therein are incorporated and realleged herein by reference.

28 19. On September 9, 2011, Plaintiff submitted a written objection to the County and



1 the Board. Plaintiff objected to the proposed inclusion of restaurants and other food facilities in  
2 the proposed plastic bag ban which was later adopted as Ordinance No. 5103. Plaintiff's  
3 objection was based on Retail Food Code preemption.

4 20. On September 20, 2011, the Board adopted Ordinance No. 5103 which banned  
5 plastic carryout bags at certain retail stores and at restaurants and other food facilities.

6 21. On October 18, 2011, Plaintiff filed an action in this Court to invalidate and set-  
7 aside the ban of plastic carryout bags at restaurants and other food facilities in Ordinance No.  
8 5103, based on Retail Food Code preemption and unconstitutional vagueness. (*Save The Plastic*  
9 *Bag Coalition v. County of Santa Cruz*, Case No. CV 172379.)

10 22. On February 14, 2012, the Board adopted Ordinance No. 5116 which amended  
11 Ordinance No. 5103 by exempting restaurants and other food facilities from the plastic carryout  
12 bag ban. A true and correct copy of Ordinance No. 5116 is attached hereto as Exhibit B and  
13 incorporated herein by reference.

14 23. On February 16, 2012, Plaintiff dismissed the action without prejudice as a result  
15 of the Board's adoption of Ordinance No. 5116.

16 24. Subsequently, the Board placed on its agenda for its September 25, 2012  
17 meeting the first reading of a proposed ordinance to remove the exemption for restaurants and  
18 other food facilities. That proposed ordinance subsequently became Ordinance No. 5138.

19 25. On September 24, 2012, the California Restaurant Association submitted to the  
20 Board a letter objecting to the proposed inclusion of restaurants and other food facilities in the  
21 plastic bag ban. A true and correct copy of the letter is attached hereto as Exhibit F. The letter  
22 pointed out the health, safety, and sanitation risks of banning plastic bags. All of the comments  
23 and objections stated and asserted therein are incorporated and realleged herein by reference.

24 26. On September 25, 2012, Plaintiff submitted a written objection and notice of  
25 intent to sue to the County and the Board in response to the to the proposed inclusion of  
26 restaurants and other food facilities in the plastic bag ban. Plaintiff's objection was based on  
27 Retail Food Code preemption. A true and correct copy of said written objection and the  
28 documents that were attached to said objection are attached hereto as Exhibit G and

1 incorporated herein by reference.

2 27. Plaintiff attached to its September 25, 2012 objection a copy of the ruling in  
3 *Save The Plastic Bag Coalition v. City of Carpinteria*, Santa Barbara Superior Court Case No.  
4 1385674. A true and correct copy thereof is attached hereto as Exhibit H and incorporated  
5 herein by reference. In that ruling, the Santa Barbara Superior Court overruled the City of  
6 Carpinteria's demurrer and ruled that the Retail Food Code preempts and prohibits cities and  
7 counties from banning plastic carryout bags at restaurants and other food facilities.

8 28. On September 25, 2012, after Plaintiff had submitted its written objection and a  
9 copy of the Carpinteria ruling to the County and the Board, the Board approved Ordinance No.  
10 5138 at its first reading.

11 29. On October 16, 2012, the Board finally adopted Ordinance No. 5138 reinstating  
12 the plastic carryout bag ban at restaurants and other food facilities effective April 22, 2013.

13 30. As a result of the adoption of Ordinance No. 5138, Santa Cruz County Code  
14 §5.48.020(A) and (E) state that restaurants and other food facilities may not provide plastic  
15 carryout bags.

16 31. The County and the Board never conducted any study or made any findings  
17 regarding the health, safety, sanitary, liability impacts of banning plastic carryout bags at  
18 restaurants and other food facilities.

19 32. With only four exceptions, all other California jurisdictions that have banned  
20 plastic bags have exempted restaurants, including Alameda County, Los Angeles County,  
21 Marin County, Santa Clara County, Santa Cruz County, the City of Long Beach, the City of San  
22 Jose, and the City of Santa Monica.

23 33. The four jurisdictions that have adopted plastic carryout bag bans at restaurants  
24 and other food facilities are the City of Santa Cruz, the City and County of San Francisco, the  
25 City of Malibu, and the Town of Fairfax.

26 34. Plaintiff has filed an action to challenge the validity of the City of Santa Cruz  
27 ban. (*Save The Plastic Bag Coalition v. City of Santa Cruz*, Santa Cruz County Superior Court,  
28 Case No. CV 174811.)

1           35. Plaintiff has filed an action to challenge the validity of the San Francisco ban.  
 2 (*Save The Plastic Bag Coalition v. City and County of San Francisco*, San Francisco Superior  
 3 Court, Case No. CPF-12-511978.) The San Francisco Superior Court ruled against Plaintiff on  
 4 the issue of Retail Food Code preemption, but Plaintiff plans to appeal that ruling. The San  
 5 Francisco Superior Court's ruling is legally incorrect and contradicts the Santa Barbara  
 6 Superior Court ruling.

7           36. If the Court of Appeal or Supreme Court uphold Plaintiff's Retail Food Code  
 8 preemption claim, Plaintiff plans to take action to have the Malibu and Fairfax bans of plastic  
 9 carryout bags at restaurants and other food facilities repealed or invalidated.

10                                   **HEALTH AND SAFETY CONCERNS REGARDING**  
 11                                   **BANNING PLASTIC BAGS AT RESTAURANTS**

12           37. In its written objection submitted to the Board on September 12, 2011, which is  
 13 attached hereto as Exhibit D, the California Restaurant Association stated as follows:

14                                   Restaurants should have the freedom of choice to determine what type of  
 15                                   bag works best to maintain the integrity of their product. Paper bags are  
 16                                   not always the most practical choice for restaurants.

17                                   Plastic bags are superior to paper bags in protecting against accidental  
 18                                   spills and leaks during transport, whereas the content would just seep  
 19                                   through a paper bag. Customers become disgruntled when food from the  
 20                                   bag leaks onto their car, carpet, clothes, etc.

21                                   In addition, some types of containers don't fit as well in paper bags.  
 22                                   Whereas plastic bags conform to the size of the container, paper bags do  
 23                                   not. The bottom of paper bags is generally rectangular-shaped which  
 24                                   doesn't work when you have a standard, large square container.

25           38. The City of Santa Monica explained its restaurant exemption as follows:

26                                   Restaurants and other food vendors may provide single-use plastic  
 27                                   carryout bags to customers only for the transportation of take-out food  
 28                                   and liquids intended for consumption off of the food provider's  
 29                                   premises. This exemption is included as a public health safeguard based  
 30                                   on input from restaurant owners who expressed concern that some hot  
 31                                   and liquid foods could leak from take-out containers and potentially  
 32                                   cause paper bags to weaken and fail.

33 ([http://www.smgov.net/uploadedFiles/Departments/OSE/Business/Bag\\_Ban\\_Summary.pdf](http://www.smgov.net/uploadedFiles/Departments/OSE/Business/Bag_Ban_Summary.pdf))

1           39.    The City of San Jose explained its restaurant exemption as follows:  
2                    Restaurants and food establishments would not be subject to the ban for  
3                    public health reasons. Reusable bags are considered impractical for these  
4                    purposes.

(City of San Jose Bag Ordinance Development, February 2010.)

5           40.    The City of Los Angeles states as follows regarding its proposed plastic bag ban:  
6                    Restaurants, coffee shops, and fast food restaurants are exempt from the  
7                    proposed policy due to sanitary and health concerns.

(City of Los Angeles Proposed Reusable Bag Policy Frequently Asked Questions.)

8           41.    Restaurants and other food facilities prepare and sell freshly cooked foods that  
9                    may contain extremely hot liquid, grease, oil, sauce, or soup. Oil is heated in fryers to 375  
10                   degrees or more. Hot soup and other foods may be served at 180 degrees or more.

11           42.    Restaurants and other food facilities prepare and sell hot beverages including  
12                   coffee.

13           43.    Plastic is obviously safer than paper for transporting such foods and beverages.

14           44.    Plastic bags are waterproof and greaseproof. Paper bags are not.

15           45.    When liquids spill inside a paper bag, the bag can break. That does not happen to  
16                   a plastic bag.

17           46.    Carryout bags from restaurants and other food facilities are often transported or  
18                   opened in moving vehicles, so safe and secure packaging is essential.

19           47.    The impact on a young child of hot liquid, hot soup, or hot oil seeping or spilling  
20                   from a paper bag onto his or her lap or legs could be disastrous.

21           48.    Some restaurants tightly pack up food in a plastic bag and use the handles to tie  
22                   the bag so as to prevent the food from moving around and spilling. This cannot be done with a  
23                   paper bag.

24           49.    The Burn Center at the University of Florida states as follows on its website:

25                   Examples of hot liquids which can cause burns include hot water, coffee,  
26                   grease and hot soup.

27           A true and correct copy of the website page containing that quotation is part of Exhibit G  
28

1 attached hereto.

2 50. The Burn Center at Saint Francis Memorial Hospital in San Francisco states as  
3 follows on its website:

4 Hot liquids can cause life threatening burn injuries and are the leading  
5 cause of burn injuries in children under the age of 4 years. The experts in  
6 burn treatment at Saint Francis Memorial Hospital's Both Burn Center  
7 want you to know:

8 Coffee, tea, soup and hot tap water can be hot enough to cause serious  
9 burn injury....

10 60-70% of all pediatric patients seen in the Bothin Burn Center have a  
11 scald injury.

12 A true and correct copy of the website page containing that quotation is part of Exhibit G  
13 attached hereto.

14 51. The lady who sued in the McDonald's hot coffee case was burned so severely  
15 that her doctors thought that she would die. The movie about the hot coffee case shows horrific  
16 photographs of her injuries. (<http://hotcoffeethemovie.com>.) The photographs are part of  
17 Exhibit G attached hereto. Her cotton sweatpants absorbed the coffee and held it against her  
18 skin, burning her thighs, buttocks, and groin. She suffered third-degree burns on 6% of her skin  
19 and lesser burns over 16%. She remained in the hospital for eight days while she underwent  
20 skin grafting. During this period, she lost 20 pounds (nearly 20% of her body weight), reducing  
21 her down to 83 pounds. Two years of medical treatment followed.

22 52. The McDonald's hot coffee case shows the impact that hot liquids can have  
23 when spilled.

24 53. From 1982 to 1992, McDonald's received more than 700 reports of people  
25 burned by its coffee.

26 54. Another incident is related in the following news story:

27 A Miami-Dade woman says that the soup she bought from Subway  
28 scalded her thigh, hip, and buttocks so extensively that she had to rush to  
the hospital -- and undergo emergency treatment for second-degree  
burns, according to a recently filed lawsuit.

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On July 30, Claudia Vargas purchased soup and a sub from the Hollywood sandwich store, located at 6582 Taft St.

*When she returned to her car, she tried to take the soup out of the bag. But the container was too full and the lid was not attached correctly, so the soup spilled on her lap, Vargas says.*

Because the soup was extremely hot, 23-year old Vargas says that she suffered from second-degree burns that will leave her with permanent scarring....

Lydecker insists that the soup was cooked and served at a reasonable temperature.

“I mean, soup is hot. And people want their soup hot. You’re not supposed to spill it on yourself. My client just wanted to serve a good tasting, hot soup. He looks forward to exonerating himself in court.”

Still, Vargas stands by her claim, and insists that Subway was negligent in how it prepped, marketed, and served her the soup.

Medical records furnished to the Pulp by Vargas’ representative confirm that Vargas had to go to the emergency room after the accident, where she was given antibiotics, a tetanus shot, and topical ointment for the wounds.

Vargas thinks that this could have been avoided if Subway hadn’t served overly hot soup -- or if she’d had some kind of warning that the soup would be scalding and hazardous.

Vargas is suing Subway, in hopes of getting money for her medical bills.

A plastic surgeon who examined Vargas shortly after the accident has said that chances for full recovery are grim: The burns will take at least 6 months to heal. And, “despite laser intervention, the patient will always have some residual scarring,” medical documents note.

The news article relating the story about Claudia Vargas, including a photograph of her extensive burn injury, is part of Exhibit G attached hereto.

55. A restaurant owner has the legal right and duty and the moral responsibility to take all reasonable steps to prevent such injuries. It is for the restaurant owner to decide whether a plastic or paper bag is the safest for its food. Denying restaurant owners what they believe is the safest option could result in personal injuries to customers.

1                    **ALLEGATIONS SUPPORTING CLAIM FOR ATTORNEY’S FEES**

2            56. Plaintiff requests an award of attorney’s fees against the County pursuant to  
3 Code Civ. Proc. §1021.5 if the Court grants any of the relief requested herein, as (i) this  
4 litigation is intended to result in enforcement of an important public right affecting the public  
5 interest; (ii) a significant benefit will be conferred on the general public or a large class of  
6 persons; and (iii) the necessity and financial burden of private enforcement are such as to make  
7 an award of attorney’s fees appropriate.

8                    **FIRST CAUSE OF ACTION**  
9                    **(RETAIL FOOD CODE PREEMPTION)**

10           57. Plaintiff realleges and incorporates herein every allegation made above.

11           58. The State of California regulates restaurant and food facility carryout bags in the  
12 California Retail Food Code, which is Part 7 of Division 104 of the California Health and  
13 Safety Code.

14           59. Health and Safety Code § 113705 states as follows:

15                    **Legislative Intent To Preempt Local Standards**

16            The Legislature finds and declares that the public health interest requires  
17 that there be uniform statewide health and sanitation standards for retail  
18 food facilities to assure the people of this state that the food will be pure,  
19 safe, and unadulterated. Except as provided in Section 113709, it is the  
20 intent of the Legislature to ***occupy the whole field*** of health and  
21 sanitation standards for retail food facilities, and the standards set forth  
22 in this part and regulations adopted pursuant to this part shall be  
23 ***exclusive*** of all local health and sanitation standards relating to retail  
24 food facilities.

25           60. Health and Safety Code § 113700 states: “These provisions shall be known, and  
26 may be cited, as the California Retail Food Code, hereafter referred to as ***‘this part.’***” Health  
27 and Safety Code § 113703 states: “The purpose of ***this part*** is to safeguard public health and  
28 provide to consumers food that is safe, unadulterated, and honestly presented through adoption  
of science-based standards.” The reference to “purpose” in the singular means that all of the  
provisions are deemed to have the same purpose. The reference to ***“this part”*** in § 113703  
means the Retail Food Code in its entirety, in accordance with § 113700.

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61. Health and Safety Code § 113709 states as follows:

**Authority To Establish Local Requirements**

This part does not prohibit a local governing body from adopting an evaluation or grading system for food facilities, from prohibiting any type of food facility, from adopting an employee health certification program, from regulating the provision of consumer toilet and handwashing facilities, or from adopting requirements for the public safety regulating the type of vending and the time, place, and manner of vending from vehicles upon a street pursuant to its authority under subdivision (b) of section 22455 of the Vehicle Code.

62. California Health and Safety Code § 113789 defines “food facility” as follows:

(a) “Food facility” means an operation that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption at the retail level, including, but not limited to, the following:

(1) An operation where food is consumed on or off the premises, regardless of whether there is a charge for the food.

(2) Any place used in conjunction with the operations described in this subdivision, including, but not limited to, storage facilities for food-related utensils, equipment, and materials.

(b) “Food facility” includes permanent and nonpermanent food facilities, including, but not limited to, the following:

(1) Public and private school cafeterias.

(2) Restricted food service facilities.

(3) Licensed health care facilities.

(4) Commissaries.

(5) Mobile food facilities.

(6) Mobile support units.

(7) Temporary food facilities.

(8) Vending machines.

(9) Certified farmers’ markets, for purposes of permitting and enforcement pursuant to Section 114370.

(10) Farm stands, for purposes of permitting and enforcement pursuant



1 to Section 114375.

2 [§ 113789(c) contains exclusions from the above definition.]

3 63. Health and Safety Code § 113914 defines “single-use” articles as including  
4 single-use “carry-out utensils” and “bags” and “wrappers.” The words “carry-out” and “bags”  
5 leave no room for doubt that local bans and fees on carryout bags are preempted.

6 64. “Carryout-out utensils” (the term used in § 113914) includes any “container”  
7 used in the storage, preparation, transportation, dispensing, sale, or service of food.” (Health  
8 and Safety Code § 113934.) A carryout bag is a utensil.

9 65. Health and Safety Code § 114081 states: “Single-use articles [including carryout  
10 bags] shall not be reused.” This bans the use of reusable bags at restaurants.

11 66. Health and Safety Code § 114130(a) states: “Equipment and utensils [including  
12 carryout bags] shall be designed and constructed to be durable and to retain their characteristic  
13 qualities under normal use conditions.”

14 67. Health and Safety Code § 114130.1 states: “Materials that are used in the  
15 construction of utensils [including carryout bags] ...shall not allow the migration of deleterious  
16 substances or impart colors, odors, or tastes to food and under normal use conditions shall be  
17 safe, durable, corrosion-resistant, and nonabsorbent, sufficient in weight and thickness to  
18 withstand repeated warewashing, finished to have a smooth, easily cleanable surface, and  
19 resistant to pitting, chipping, crazing, scratching, scoring, distortion, and decomposition.”

20 68. Health and Safety Code § 114130.2 states: “Materials that are used to make  
21 single-use articles [including carryout bags] shall not allow the migration of deleterious  
22 substances or impart colors, odors, or tastes to food, and shall be safe and clean.”

23 69. Based on the foregoing, the Retail Food Code regulates the “material” from  
24 which carryout bags are made (plastic or paper) and bans reusable bags. Ordinances No. 5103  
25 and 5138 legislate in the same field as the Retail Food Code.

26 70. The Retail Food Code originated as Senate Bill 144 which was enacted in 2006.  
27 The Legislative Analysis of SB 144 includes a section (at page SP-5) entitled “Uniformity and  
28 Consistency” which includes five bullet points, including the following: “Contains provisions

1 that will clarify and expand the requirements pertaining to equipment, *utensils*, and linens used  
2 in retail food service operations.” (Emphasis added.) This confirms that the utensil provisions of  
3 the Retail Food Code are intended to be uniform and consistent across the state. As noted  
4 above, a carryout bag is a “utensil.” A copy of the Legislative Analysis is attached hereto as  
5 Exhibit I and incorporated herein by reference.

6 71. In *California Grocers Assn. v. City of Los Angeles* (2011) 52 Cal.4th 177, the  
7 Supreme Court discussed Retail Food Code preemption and stated:

8 [T]he state alone may adopt ‘health and sanitation standards for retail  
9 food facilities.’ The remainder of the statutory scheme demonstrates by  
10 way of example the precise scope of exclusive state regulation,  
11 comprehensively detailing standards for, e.g., employee training on  
12 health matters (id., §§ 113947-113947.3), employee health and hygiene  
13 (id., §§ 113949-113978), food transportation, storage, and preparation  
14 (id., §§ 113980-114057.1), food display and service (id., §§ 114060-  
114083), food labeling (id., §§ 114087-114094), the *design* and  
15 sanitizing of food preparation areas and *utensils* (id., §§ 114095-  
114185.5), and the design and cleanliness of food facilities (id., §§  
114250-114282).

15 (*California Grocers, supra*, 52 Cal.4th at 189, emphasis added.)

16 72. The fact that the Supreme Court mentioned the “design” of “utensils” as within  
17 the scope of preemption confirms that the design of carryout bags is preempted. In addition, the  
18 Supreme Court referred to ranges of section numbers as preemptive (§§ 114060-114083,  
19 114095-114185.5) that include §§ 114081 and 114130 which address carryout bags.

20 73. The Supreme Court stated:

21 Purpose alone is not a basis for concluding a local measure is preempted.  
22 While we and the Courts of Appeal have occasionally treated an  
23 ordinance’s purpose as relevant to state preemption analysis, we have  
24 done so in the context of a nuanced inquiry into the ultimate question in  
25 determining field preemption: whether the *effect* of the local ordinance is  
26 in fact to regulate in the very field the state has reserved to itself.

25 (*California Grocers, supra*, 52 Cal.4th at 190, emphasis added.)

26 74. The Supreme Court explained why purpose is not relevant:

27 To rest preemption analysis solely on considerations of purpose would  
28 generate the anomalous circumstance, rejected by the United States  
Supreme Court, that one jurisdiction’s measure might survive



1           82. As the exemption for restaurants and other food facilities has been repealed by  
2 Ordinance No. 5138, Ordinance No. 5103 §5.48.020(F) now applies again to restaurants and  
3 other food facilities.

4           83. Ordinance No. 5103 §5.48.020(F) gives five non-exhaustive examples: “paper  
5 bags to protect bottles, plastic bags around ice cream or other wet items, paper bags used to  
6 weigh candy, paper pharmacy bags or paper bags to protect greeting cards.” However, these  
7 examples do not constitute a definition and do not narrow the broad potential meaning of the  
8 vague and ambiguous terms at all. All plastic carryout bags “protect” items, including but not  
9 limited to those in the aforementioned examples.

10           84. It is impossible to ascertain its meaning of “wet items” in the context of food and  
11 beverages. The following items may or may not be “wet items”:

- 12           • A hot coffee container that might become “wet” as a result of spillage of the  
13 contents over the outside of the cup
- 14           • Oily French fries
- 15           • Cooked hamburger from which meat juices drip
- 16           • Pizza
- 17           • A container of Chinese, Thai, or Indian food which may become “wet” from  
18 dripping or spilled sauce or curry
- 19           • Tacos with moist dripping ground beef and gravy filling
- 20           • Sandwiches from which juices seep, such as sandwiches containing tomatoes,  
21 pickles, peppers, mustard, mayonnaise, or ketchup
- 22           • Hot steaming food that creates “wet” condensation inside a bag
- 23           • Moist foods that could be considered “wet” such as cooked vegetables
- 24           • “Wet” fresh fruits or vegetables such as washed whole apples, apple or peach  
25 slices, or wet raw carrots
- 26           • Pickles
- 27           • Soups
- 28           • Creamy foods such as icing on cupcakes

- 1 • Melting chocolate
- 2 • Jam/jelly
- 3 • Apple pie
- 4 • Milk shakes
- 5 • Bags that contain both wet and dry items (a beverage and a dry cookie for
- 6 example)
- 7 • Any item that unintentionally or accidentally could become a “wet item.”

8 85. Legislation “may run afoul of the Due Process Clause because it fails to give  
 9 adequate guidance to those who would be law-abiding, to advise defendants of the nature of the  
 10 offense with which they are charged, or to guide courts in trying those who are accused.”  
 11 (*Musser v. Utah*, 333 U.S. 95, 97 (1948).) “Men of common intelligence cannot be required to  
 12 guess at the meaning of [an] enactment.” (*Winters v. New York*, 333 U.S. 507, 515-16 (1948).)  
 13 “[T]he void-for-vagueness doctrine requires that a penal statute define the criminal offense with  
 14 sufficient definiteness that ordinary people can understand what conduct is prohibited and in a  
 15 manner that does not encourage arbitrary and discriminatory enforcement.” (*Kolender v.*  
 16 *Lawson* (1983) 461 U.S. 352, 357.”)

17 86. Ordinances No. 5103 and 5138 fail to give fair notice of the acts to be avoided  
 18 and fail to give adequate safeguards to guide law enforcement in order to avoid abusive and  
 19 arbitrary practices. Ordinances No. 5103 §5.48.020(F) and 5138 are therefore void for  
 20 vagueness on their face under the Due Process Clause of the Fourteenth Amendment to the U.S.  
 21 Constitution.

22 87. Ordinance No. 5103 §5.48.020(F) is not severable from the remainder of the  
 23 Ordinance. It is an integral part of the entire Ordinance in that it defines the applicability of the  
 24 plastic bag ban and the paper bag charge for all retail stores covered by the Ordinance, not just  
 25 restaurants and other food facilities. Therefore, the Ordinance No. 5103 is invalid in its entirety.

26 88. This cause of action is substantially identical to the Third Cause of Action in the  
 27 first lawsuit. (*Save The Plastic Bag Coalition v. County of Santa Cruz*, Case No. CV 172379.)  
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**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for all of the following:

- A. A declaratory judgment that Ordinances No. 5103 and 5138 are invalid.
- B. An order directing the County to repeal Ordinances No. 5103 and 5138.
- C. A preliminary injunction prohibiting the County from implementing and enforcing Ordinances No. 5103 and 5138 during the pendency of this action.
- D. A permanent injunction prohibiting the County from adopting substantially similar invalid ordinances.
- E. Attorney's fees pursuant to Code. Civ. Proc. §1021.5.
- F. Costs of this action.
- G. Such further relief as the Court may deem just and proper.

DATED: October 22, 2012

**STEPHEN L. JOSEPH**



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Attorney for Plaintiff  
SAVE THE PLASTIC BAG COALITION

VERIFICATION

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I, Stephen L. Joseph, declare:

1. I am an attorney at law, duly admitted and licensed to practice in the State of California.
2. I am the attorney of record for Plaintiff, SAVE THE PLASTIC BAG COALITION, in the above-entitled matter.
3. Plaintiff was formed on June 3, 2008.
4. At all times since June 3, 2008, I have been sole counsel and manager of Plaintiff. In those capacities, I have been involved in and have been aware of all actions taken by Plaintiff since that time.
5. I am authorized by Plaintiff to make this verification for and on its behalf.
6. I have read the VERIFIED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF INVALIDATING AND PROHIBITING IMPLEMENTATION OF ORDINANCES BANNING PLASTIC CARRYOUT BAGS and know its contents.
7. The matters stated therein are true of my own knowledge, except as to those matters that are stated on information and belief, and as to those matters I believe them to be true.
8. Exhibit A attached hereto is a true and correct copy of County of Santa Cruz Ordinance No. 5103.
9. Exhibit B attached hereto is a true and correct copy of County of Santa Cruz Ordinance No. 5116.
10. Exhibit C attached hereto is a true and correct copy of County of Santa Cruz Ordinance No. 5138.
11. Exhibit D hereto is a true and correct copy of a letter submitted to the County of Santa Cruz Board of Supervisors (the "Board") by the California Restaurant Association on September 6, 2011.
12. Exhibit E attached hereto is a true and correct copy of a letter submitted by Plaintiff to the County and the Board on September 12, 2011. The Times Online article which is part of the exhibit is the article referenced as a URL on the first page of the letter.
13. Exhibit F hereto is a true and correct copy of a letter submitted to the Board by the

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California Restaurant Association on September 24, 2012.

14. Exhibit G attached hereto is a true and correct copy of Plaintiff's objection and attachments submitted to the County of Santa Cruz and the Santa Cruz County Board of Supervisors Board on September 25, 2012.

15. Exhibit H attached hereto is a true and correct copy of the tentative ruling of the Santa Barbara Superior Court overruling the demurrer filed by the City of Carpinteria in *Save The Plastic Bag Coalition v. City of Carpinteria*, Santa Barbara Superior Court Case No. 1385674. I was counsel for Save The Plastic Bag Coalition in that case. I certify that the tentative ruling was adopted by the Santa Barbara Superior Court as its final ruling on May 15, 2012, without change.

16. Exhibit I attached hereto is a true and correct copy of the Legislative Analysis of SB 144 which was the bill that became the California Retail Food Code.

17. If called upon as a witness to this proceeding, I would and could competently testify thereto under oath.

I declare under penalty of perjury under the laws of the State of California that I have read the forgoing, that the foregoing is true and correct, and that I would be competent to so testify.

Executed on October 22, 2012 at San Francisco, California.



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STEPHEN L. JOSEPH



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**TABLE OF ATTACHED EXHIBITS**

- A. Ordinance No. 5103 adopted September 20, 2011
- B. Ordinance No. 5116 adopted February 14, 2012
- C. Ordinance No. 5138 adopted October 16, 2012
- D. California Restaurant Association’s letter to the Santa Cruz Board of Supervisors (the “Board”) dated September 6, 2011
- E. Plaintiff’s letter to the County of Santa Cruz County Board of Supervisors (the “Board”) dated September 12, 2011 and copy of Times Online article referenced in the letter
- F. California Restaurant Association’s letter to the County dated September 24, 2012
- G. Plaintiff’s objection submitted to the County and the Board on September 25, 2012 (including Vargas news report and McDonald’s hot coffee case photographs)
- H. Santa Barbara Superior Court ruling in *Save The Plastic Bag Coalition v. City of Carpinteria*
- I. Legislative Analysis of SB 144

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7 Attorney for Petitioner  
8 SAVE THE PLASTIC BAG COALITION

9 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
10 FOR THE COUNTY OF SANTA CRUZ

11	SAVE THE PLASTIC BAG COALITION,	)	Case No. CV 174811
12	an unincorporated association,	)	
13		)	<b>CEQA CASE</b>
14	Petitioner,	)	
15	v.	)	<b>VERIFIED PETITION FOR WRIT OF</b>
16		)	<b>MANDATE UNDER THE CALIFORNIA</b>
17		)	<b>ENVIRONMENTAL QUALITY ACT;</b>
18	CITY OF SANTA CRUZ, a municipal	)	<b>COMPLAINT FOR INVALIDATION OF</b>
19	corporation; CITY OF SANTA CRUZ	)	<b>ORDINANCE BASED ON RETAIL FOOD</b>
20	PUBLIC WORKS DEPARTMENT, an agency	)	<b>CODE PREEMPTION AND</b>
21	of the City of Santa Cruz; and DOES 1-100,	)	<b>UNCONSTITUTIONAL VAGUENESS;</b>
22	inclusive,	)	<b>REQUEST FOR DECLARATORY AND</b>
23		)	<b>INJUNCTIVE RELIEF</b>
24	Respondents.	)	
25		)	

26 Petitioner, SAVE THE PLASTIC BAG COALITION, alleges as follows:

27 **PARTIES AND JURISDICTION**

- 28 1. Petitioner SAVE THE PLASTIC BAG COALITION is an unincorporated association.
- 29 2. Respondent CITY OF SANTA CRUZ (the "City") is a municipal corporation.
- 30 3. Respondent CITY OF SANTA CRUZ PUBLIC WORKS DEPARTMENT ("PWD") is a department and agency of the City.
- 31 4. Petitioner seeks a judgment and writ of mandate to set aside, void, annul, and repeal City of Santa Cruz Ordinance No. 2012-08 (the "Ordinance"). The Ordinance bans

1 plastic carryout bags (“plastic bag”) at “retail establishments” and “retail stores” (as defined in  
2 the Ordinance). The Ordinance requires that consumers pay a 10-cent fee for each paper  
3 carryout bag (“paper bag”) in the first year that the Ordinance is in effect, but not thereafter. A  
4 true and correct copy of the Ordinance is attached hereto as Exhibit A and incorporated herein  
5 by reference.

6 5. The Ordinance was finally adopted by the City Council on July 24, 2012.

7 6. The Ordinance takes effect on April 10, 2013.

8 7. The First Cause of Action herein alleges violation of the California  
9 Environmental Quality Act (“CEQA”).

10 8. The Ordinance is a “project” that is subject to CEQA.

11 9. PWD is the lead agency for the project, responsible for compliance with CEQA,  
12 including but not limited to preparation of an Environmental Impact Report (“EIR”).

13 10. PWD is also responsible for enforcement of the Ordinance.

14 11. PWD is a real party in interest.

15 12. PWD and the City violated CEQA by refusing and failing to complete and  
16 certify an EIR prior to adopting the Ordinance.

17 13. Said refusal and failure to prepare an EIR violates the California Supreme  
18 Court’s express ruling that “appropriately comprehensive environmental review will be  
19 required” before plastic bag bans may be adopted in cities such as the City of Santa Cruz. (*Save*  
20 *The Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 174, n.10.)

21 14. Petitioner is ignorant of true names and capacities of DOES named herein as  
22 DOES 1-100, inclusive, and therefore sues said Respondents by such fictitious names.  
23 Petitioner will amend this Petition and Complaint to allege their true names and capacities when  
24 ascertained.

25 15. Petitioner is informed and believes and thereon alleges that some or all of these  
26 fictitiously named Respondents were, and continue to be, responsible in some manner for the  
27 acts or omissions alleged herein.

28 16. Petitioner is informed and believes that at all times relevant to the allegations

1 herein, each Respondent, including the DOE Respondents, were the employees, agents, or  
2 partners of each of the other Respondents, and were at all times acting within the purpose and  
3 scope of their agency or partnership, or at the direction of the other Respondents.

4 17. This Court has jurisdiction over the matters alleged in this Petition pursuant to  
5 Code Civ. Proc. § 1085, and/or § 1094.5, and Pub. Res. Code § 21167.

6 18. Venue is proper in this Court under Code Civ. Proc. §§ 393 and 394(a).

7 19. This action is timely filed within 30 days of the later of (i) approval of the  
8 Ordinance or (ii) filing of any CEQA Notice of Determination following approval of the  
9 project. (Pub. Res. Code § 21167(d).)

10 20. Petitioner complied with Pub. Res. Code § 21167.5 by mailing to all  
11 Respondents a written notice of the commencement of this action, identifying the project.

12 **STANDING**

13 21. At all times relevant to the allegations herein and at present, Petitioner's  
14 members have included Crown Poly, Inc. ("Crown Poly") and Grand Packaging, Inc. (doing  
15 business and referred to herein as "Command Packaging"), which are California corporations in  
16 good standing.

17 22. Said corporations and other members of Petitioner market, sell, distribute, and  
18 supply plastic bags and plastic reusable bags to retail stores, food facilities (as defined by  
19 California Health and Safety Code § 113789 ) in the City of Santa Cruz, including bags that are  
20 banned by the Ordinance.

21 23. Petitioner was formed in 2008 and exists for the purpose of responding to  
22 environmental misinformation about plastic bags and ensuring that the environmental impacts  
23 of banning plastic bags are made known to decision-makers and the public. Petitioner maintains  
24 a website at [www.savetheplasticbag.com](http://www.savetheplasticbag.com).

25 24. Petitioner seeks to promote and enforce the informational purposes of CEQA in  
26 this action, as set forth in CEQA Guidelines § 15002. Ascertaining the true facts about the  
27 environmental impacts of projects and disclosing those true facts to decision-makers and the  
28 public are within the zone of interests that CEQA is intended to preserve and protect.



1 proposed project "COULD NOT have a significant effect on the environment, and a  
2 NEGATIVE DECLARATION will be prepared." (Uppercase in original.)

3 35. On April 16, 2012, the Administrator of Environmental Quality issued a  
4 Negative Declaration. A true and correct copy thereof is attached hereto as Exhibit B and  
5 incorporated herein by reference.

6 36. The Negative Declaration states in part that the (proposed) Ordinance would  
7 "require retail establishments to impose a 10-cent charge for each single-use paper carryout bag  
8 provided to customers at the point of sale." The assumption in the Negative Declaration is that  
9 the 10-cent fee would be permanent.

10 37. The Negative Declaration states that based on the Initial Study, the project would  
11 have "no or less-than-significant impacts on the environment."

12 38. On May 21, 2012, Petitioner timely sent and submitted to PWD "Comments On  
13 And CEQA Objections To City of Santa Cruz Proposed Plastic Bag Ban" (referred to  
14 hereinafter as the "Objections.") True and correct copies of the Objections are attached hereto  
15 as Exhibit C and incorporated herein by reference. Petitioner also submitted therewith 142  
16 documents in support of the Objections.

17 39. In the Objections and in an e-mail dated July 9, 2012, Petitioner made a "fair  
18 argument" that the Ordinance may have a significant negative effect on the environment. A true  
19 and correct copy of the July 9, 2012 e-mail is attached hereto as Exhibit E and incorporated  
20 herein by reference.

21 40. In the Objections and the July 9, 2012 e-mail, Petitioner demanded that the City  
22 and PWD prepare and certify an EIR before adopting the Ordinance.

23 41. No EIR was prepared by the City or PWD.

24 42. In an e-mail sent to the City on June 21, 2012 and in the July 9, 2012 e-mail,  
25 Petitioner also objected to the Ordinance based on California Retail Food Code preemption. A  
26 true and correct copy of the June 21, 2012 e-mail is attached hereto as Exhibit D and  
27 incorporated herein by reference.

28 43. In the e-mail sent to the City on July 9, 2012, Petitioner also objected to the

1 definition of a “reusable bag.”

2 44. All of the objections and evidence cited herein are part of the administrative  
3 record.

4 45. Each and every objection asserted in Exhibits C, D, and E are hereby reasserted  
5 in support of the causes of actions herein. All said objections are incorporated herein by  
6 reference as if fully alleged in this pleading.

7 **THE CITY AND PWD REFUSED AND FAILED TO**  
8 **COMPLY WITH THE SUPREME COURT’S DECISION**  
9 **IN THE MANHATTAN BEACH CASE**

10 46. The California Supreme Court ruled in July 2011 that for cities and counties  
11 larger than the City of Manhattan Beach, “appropriately comprehensive environmental review  
12 “will be required” before plastic bags may be banned and that such projects “should not be  
13 allowed to escape review.” (*Manhattan Beach, supra*, 52 Cal.4th at 174, n.10.)

14 47. The population of the City of Manhattan Beach is 33,852. The population of the  
15 City of Santa Cruz is 59,946.

16 48. In addition, approximately six million visitors and tourists visit the City of Santa  
17 Cruz every year.

18 49. Based on the decision of the Supreme Court in *Manhattan Beach*, the City and  
19 PWD was required to prepare an EIR before adopting the Ordinance.

20 **FIRST CAUSE OF ACTION**  
21 **AGAINST ALL RESPONDENTS**  
22 **(VIOLATION OF CEQA:**  
23 **FAILURE TO PREPARE AND CERTIFY AN EIR)**

24 50. Petitioner realleges and incorporates herein every allegation made above.

25 51. The Ordinance is a “project” subject to CEQA as the “whole of [the] action...has  
26 a potential for resulting in either a direct physical change in the environment, or a reasonably  
27 foreseeable indirect physical change in the environment.” (Pub. Res. Code § 21080(c), (d), §  
28 21151; CEQA Guidelines § 15378(a); *Manhattan Beach, supra*, 52 Cal.4th at 171, n.7.)

52. Prior to approval of the Ordinance, Petitioner made a “fair argument” that the  
Ordinance may have a significant negative effect on the environment, which triggers the

1 requirement to prepare an EIR.

2 53. Prior to approval of the Ordinance, Petitioner also asserted other CEQA  
3 objections in Exhibits C and E which are reasserted herein.

4 54. The refusal and failure to prepare and certify an EIR prior to adopting the  
5 Ordinance was a prejudicial abuse of discretion in that PWD and the City did not proceed in the  
6 manner required by CEQA.

7 55. In addition, the Ordinance as finally adopted states that stores are only required  
8 to charge the 10-cent paper bag fee during the first year of implementation of the Ordinance.  
9 Thereafter, the City Council "shall review the charge amount every year from the date of  
10 adoption, to judge its effectiveness." Therefore, the Initial Study and Negative Declaration are  
11 invalid as they are based on the assumption that the 10-cent fee requirement is permanent.

12 56. As of the date of final approval of the Ordinance, there will be no minimum fee  
13 for paper bags. Consequently, there will be a substantial increase in paper bag usage after the  
14 first year which will cause significant negative environmental impacts. This further supports  
15 Petitioner's fair argument.

16 57. For the foregoing reasons, the Ordinance is void and invalid under CEQA.

17 58. The environment will suffer irreparable harm if enforcement of the Ordinance is  
18 not enjoined by a preliminary injunction during the pendency of this action.

19 59. Petitioner is entitled to attorney's fees if the Court grants the relief requested in  
20 this First Cause of Action, as (i) this litigation is intended to result in enforcement of an  
21 important public right affecting the public interest; (ii) a significant benefit will be conferred on  
22 the general public or a large class of persons; and (iii) the necessity and financial burden of  
23 private enforcement are such as to make an award of attorney's fees appropriate. (Code Civ.  
24 Proc. §1021.5.)

25 **SECOND CAUSE OF ACTION**  
26 **AGAINST ALL RESPONDENTS**  
27 **(RETAIL FOOD CODE PREEMPTION)**

28 60. Petitioner realleges and incorporates herein every allegation made above.

61. The State of California regulates carryout bags in the California Retail Food



1 Code, which is part of the California Health and Safety Code. (California Health and Safety  
2 Code Div. 104, Part 7.)

3 62. Health and Safety Code § 113705 states as follows:

4 **Legislative Intent To Preempt Local Standards**

5 The Legislature finds and declares that the public health interest requires  
6 that there be uniform statewide health and sanitation standards for retail  
7 food facilities to assure the people of this state that the food will be pure,  
8 safe, and unadulterated. Except as provided in Section 113709, it is the  
9 intent of the Legislature to *occupy the whole field* of health and  
10 sanitation standards for retail food facilities, and the standards set forth  
11 in this part and regulations adopted pursuant to this part shall be  
12 *exclusive* of all local health and sanitation standards relating to retail  
13 food facilities.

11 63. Health and Safety Code § 113709 states as follows:

12 **Authority To Establish Local Requirements**

13 This part does not prohibit a local governing body from adopting an  
14 evaluation or grading system for food facilities, from prohibiting any  
15 type of food facility, from adopting an employee health certification  
16 program, from regulating the provision of consumer toilet and  
17 handwashing facilities, or from adopting requirements for the public  
18 safety regulating the type of vending and the time, place, and manner of  
19 vending from vehicles upon a street pursuant to its authority under  
20 subdivision (b) of section 22455 of the Vehicle Code.

19 64. California Health and Safety Code § 113789 defines “food facility” as follows:

20 (a) “Food facility” means an operation that stores, prepares, packages,  
21 serves, vends, or otherwise provides food for human consumption at the  
22 retail level, including, but not limited to, the following:

22 (1) An operation where food is consumed on or off the premises,  
23 regardless of whether there is a charge for the food.

24 (2) Any place used in conjunction with the operations described in this  
25 subdivision, including, but not limited to, storage facilities for food-  
26 related utensils, equipment, and materials.

26 (b) “Food facility” includes permanent and nonpermanent food facilities,  
27 including, but not limited to, the following:

28 (1) Public and private school cafeterias.

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- (2) Restricted food service facilities.
- (3) Licensed health care facilities.
- (4) Commissaries.
- (5) Mobile food facilities.
- (6) Mobile support units.
- (7) Temporary food facilities.
- (8) Vending machines.
- (9) Certified farmers' markets, for purposes of permitting and enforcement pursuant to Section 114370.
- (10) Farm stands, for purposes of permitting and enforcement pursuant to Section 114375.

[§ 113789(c) contains exclusions from the above definition.]

65. Health and Safety Code § 113914 defines "single-use" articles as including single-use "carry-out utensils" and "bags" and "wrappers." The words "carry-out" and "bags" leave no room for doubt that local bans and fees on carryout bags are preempted.

66. "Carryout-out utensils" (the term used in § 113914) includes any "container used in the storage, preparation, transportation, dispensing, sale, or service of food." (Health and Safety Code § 113934.) A bag is a container.

67. Health and Safety Code § 114081 states: "Single-use articles [including carryout bags] shall not be reused."

68. Health and Safety Code § 114130.2 states: "Materials that are used to make single-use articles [including bags] shall not allow the migration of deleterious substances or impart colors, odors, or tastes to food, and shall be safe and clean."

69. Based on the foregoing, the Retail Food Code regulates the "material" from which carryout bags are made (plastic or paper) and bans reusable bags at "food facilities."

70. The Legislative Analysis of SB 144 (which became the Retail Food Code) includes a section entitled "Uniformity and Consistency" which states as follows:

1           **UNIFORMITY AND CONSISTENCY**

- 2           • Consolidates food safety requirements in CURFFL articles 9-20 in order to
- 3           ensure uniformity in interpretation and application of law.
- 4           • Clarifies the enforcement actions that local health officials should take relative to
- 5           temporary food facilities and activities.
- 6           • Provides clear, uniform requirements for outdoor food service.
- 7           • Requires food labeling that is in conformance with California's Sherman Food,
- 8           Drug, and Cosmetic Law.
- 9           • Contains provisions that will clarify and expand the requirements pertaining to
- 10          equipment, *utensils*, and linens used in retail food service operations.

11          71.     In *California Grocers Assn. v. City of Los Angeles* (2011) 52 Cal.4th 177, the

12          California Supreme Court stated:

13                     The remainder of the statutory scheme demonstrates by way of example

14                     the precise scope of exclusive state regulation, comprehensively

15                     detailing standards for...food display and service (*id.*, §§ 114060-

16                     114083),...the *design* and sanitizing of food preparation areas and

17                     *utensils* (*id.*, §§ 114095-114185.5)....

18          (*California Grocers, supra*, 52 Cal.4th at 189, emphasis added.)

19          72.     The fact that the Ordinance has an environmental purpose is irrelevant. The only

20          relevant consideration is “whether the *effect* of the local ordinance is in fact to regulate in the

21          very field the state has reserved to itself.” (*California Grocers, supra*, 52 Cal.4th at 190, italics

22          added.)

23          73.     On May 15, 2012, the Santa Barbara Superior Court ruled that the Retail Food

24          Code preempts cities and counties from banning plastic carryout bags and creating

25          specifications for paper bags at “food facilities” (as defined by § 113789). *Save The Plastic Bag*

26          *v. City of Carpinteria*, Santa Barbara Superior Court, Case No. 1385674. A true and correct

27          copy of the tentative ruling is attached hereto as Exhibit F and incorporated herein by reference.

28          The tentative ruling was adopted by the court without change.

            74.     The City of Santa Cruz Ordinance exempts “restaurants” from the Ordinance.

            The Ordinance defines “restaurants” as follows:

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Restaurants, defined as an establishment whose principal business is the sale of prepared food for consumption either on or off premises, are not covered under this Ordinance.

75. In the July 9, 2012 e-mail, Petitioner stated as follows:

The draft ordinance states: "Restaurants, defined as an establishment whose principal business is the sale of prepared food for consumption either on or off premises, are not covered under this ordinance." Without waiving any objections, we object as this definition is too restrictive to comply with the Retail Food Code which applies to all "food facilities." Since the Santa Barbara Superior Court's ruling in [our] favor on this issue, the Cities of Carpinteria and Solana Beach will be adopting the following definition: " 'Restaurant' means any person or establishment doing business within the City of \_\_\_\_\_ that provides prepared food or beverages for consumption on or off its premises such as a restaurant, café, bakery, grocery or convenience store food counter or delicatessen, or catering truck vehicle." Without waiving any other objections, this definition would be acceptable.

76. The definition of "restaurants" in the Ordinance is narrower than the definition of "food facilities" in § 113789. Therefore, the Ordinance is preempted and invalid as it bans plastic bags at some "food facilities" that are not included in the definition of "restaurants" in the Ordinance, including but not limited to bakeries and grocery or convenience store food counters or delicatessens. Therefore, the Ordinance intrudes into an area that the State of California has reserved to itself and is invalid.

77. For the reasons stated below, it is in the public interest for all "food facilities" to be exempt from the Ordinance.

78. Food facilities, including grocery or convenience store food counters or delicatessens, prepare and sell freshly cooked foods that may contain extremely hot liquid, grease, oil, sauce, or soup. Oil is heated in fryers to 375 degrees or more. Hot soup and other foods may be served at 180 degrees or more.

79. Plastic is obviously safer than paper for transporting such foods.

80. Plastic bags are waterproof and greaseproof. Paper bags are not.

81. When liquids spill inside a paper bag, the bag can break. That does not happen to a plastic bag.

1           82.     Carryout bags from food facilities are often transported or opened in moving  
2 vehicles, so safe and secure packaging is essential. The impact on a young child of hot liquid or  
3 hot oil seeping or spilling from a paper bag onto his or her lap or legs could be disastrous.

4           83.     The Burn Center at the University of Florida states:

5                     Examples of hot liquids that can cause burns include hot water, coffee,  
6                     grease and hot soup.

7           84.     The Burn Center at Saint Francis Memorial Hospital in San Francisco states as  
8 follows on its website:

9                     Hot liquids can cause life threatening burn injuries and are the leading  
10                    cause of burn injuries in children under the age of 4 years. The experts in  
11                    burn treatment at Saint Francis Memorial Hospital's Both Burn Center  
                    want you to know:

12                    Coffee, tea, soup and hot tap water can be hot enough to cause serious  
13                    burn injury....

14                    60-70% of all pediatric patients seen in the Bothin Burn Center have a  
15                    scald injury.

16           85.     The lady who sued in the McDonald's hot coffee case was burned so severely  
17 that her doctors thought that she would die. The movie about the hot coffee case shows horrific  
18 photographs of her injuries. (<http://hotcoffeethemovie.com/>.) Her cotton sweatpants absorbed  
19 the coffee and held it against her skin, burning her thighs, buttocks, and groin. She suffered  
20 third-degree burns on 6% of her skin and lesser burns over 16%. She remained in the hospital  
21 for eight days while she underwent skin grafting. During this period, she lost 20 pounds (nearly  
22 20% of her body weight), reducing her down to 83 pounds. Two years of medical treatment  
23 followed.

24           86.     From 1982 to 1992, McDonald's received more than 700 reports of people  
25 burned by its coffee.

26           87.     In another incident, a lady was severely burned by hot soup that she was  
27 removing from a carryout bags. incident is related in the following news story. A true and  
28 correct copy of the article relating this incident, including a photograph of the extensive burn

1 injury, is attached hereto as Exhibit G and incorporated herein by reference.

2 88. A food facility owner has the legal right and duty and the moral responsibility to  
3 take all reasonable steps to prevent such injuries. It is for the food facility owner, not a  
4 government entity, to decide whether a plastic or paper bag is the safest for its food. Denying  
5 food facility owners what they believe to be the safest option for transporting a particular type  
6 of food could have disastrous consequences.

7 89. The Ordinance states that its purpose is to increase the use of reusable bags. This  
8 is a major health risk as the bag may have been used to carry dirty items that could contaminate  
9 food and cause severe illness. Many reusable bags contain dangerous viruses and bacteria, as  
10 evidenced by a report of Oregon public health officials, a true and correct copy of which is  
11 attached hereto as Exhibit H and incorporated herein by reference.

12 90. The California Restaurant Association has expressed serious concerns and has  
13 objected to the banning of plastic bags and the use of reusable bags at food facilities. It has  
14 stated as follows regarding the Ordinance:

15 Encouraging customers to bring dirty reusable bags in restaurants for use  
16 places public health and safety at risk. Let the supervisors know this is a  
17 risk restaurants shouldn't have to take. Other jurisdictions have  
18 recognized that reusable bags pose a food safety risk in a prepared food  
environment and have exempted restaurants from their respective  
ordinances.

19 (<http://tinyurl.com/6n4nvqb>)

20 91. Petitioner's members that manufacture or supply plastic bags for food facilities  
21 in the City of Santa Cruz, including but not limited to Command Packaging, will suffer  
22 irreparable damage if their products are banned. They have no adequate remedy at law to obtain  
23 compensation for such losses, as the City is immune from liability for compensatory damages  
24 for adopting an invalid ordinance.

25 92. Petitioner is entitled to attorney's fees if the Court grants the relief requested in  
26 this Second Cause of Action, as (i) this litigation is intended to result in enforcement of an  
27 important public right affecting the public interest; (ii) a significant benefit will be conferred on  
28 the general public or a large class of persons; and (iii) the necessity and financial burden of

1 private enforcement are such as to make an award of attorney's fees appropriate. (Code Civ.  
2 Proc. §1021.5.)

3 **THIRD CAUSE OF ACTION**  
4 **AGAINST ALL RESPONDENTS**  
5 **(FOURTEENTH AMENDMENT TO THE**  
6 **U.S. CONSTITUTION - VOID FOR VAGUENESS)**

7 93. Petitioner realleges and incorporates herein every allegation made above.

8 94. The Ordinance is a penal statute. It provides that a violation shall constitute an  
9 infraction and imposes fines.

10 95. The Ordinance defines a "reusable bag" as follows:

11 "Reusable bag" means any bag with handles that is specifically designed  
12 and manufactured for multiple reuse and meets all of the following  
13 requirements: (1) has a minimum lifetime of 125 uses, which for  
14 purposes of this subsection, means the capability of carrying a minimum  
15 of 22 pounds 125 times over a distance of at least 175 feet; (2) has a  
16 minimum volume of 15 liters; (3) is machine washable; (4) does not  
17 contain lead, cadmium, or any other heavy metal in toxic amounts; (5)  
18 has printed on the bag, or on a tag that is permanently affixed to the bag,  
19 the name of the manufacturer, the location (country) where the bag was  
20 manufactured, a statement that the bag does not contain lead, cadmium,  
21 or any other heavy metal in toxic amounts, and the percentage of  
22 postconsumer recycled material used, if any; and (6) if made of plastic, is  
23 a minimum of at least 2.25 mils thick.

24 96. The term "machine washable" is vague and ambiguous. A reusable bag made of  
25 polyethylene, polypropylene, non-woven polypropylene or canvas can be placed in a washing  
26 machine and washed, but the bag will be destroyed and unusable thereafter. It is impossible to  
27 ascertain whether the term "machine washable" would disqualify reusable bags made of such  
28 materials. A retailer may be guilty of an infraction for providing a reusable bag that is not  
"machine washable" based on the reasonable belief that the bag is "machine washable."

97. In its July 9, 2012 e-mail (Exhibit E), Petitioner objected to the definition of a  
"reusable bag" in the draft Ordinance, stating as follows:

The reusable bag definition in the draft ordinance requires that reusable  
bags be "machine washable." That is too restrictive. It would eliminate  
most reusable bags. The standard adopted in all other jurisdictions that  
have adopted the long form definition is that the bag must be capable of  
being cleaned or disinfected, regardless of machine washability. It is

1 absurd that the City of Santa Cruz County is proposing a different  
2 reusable bag definition than the one adopted by Santa Cruz County.  
3 Santa Cruz County has adopted the short form definition, which is the  
4 same as the City of San Jose's definition. The County ordinance defines  
5 a reusable bag as follows: " 'Reusable bag' means any bag with handles  
6 that is specifically designed and manufactured for multiple reuse, and is  
7 either 1) made of cloth or other washable woven fabric, or 2) made of  
8 durable material that is at least 2.25 mils thick. A "reusable bag" may be  
9 made of recyclable plastic such as high density polyethylene (HDPE),  
10 low density polyethylene (LDPE), or polypropylene." Without waiving  
11 any other objections, we object to a different definition than the one  
12 adopted by Santa Cruz County.

13 98. Legislation "may run afoul of the Due Process Clause because it fails to give  
14 adequate guidance to those who would be law-abiding, to advise defendants of the nature of the  
15 offense with which they are charged, or to guide courts in trying those who are accused."  
16 (*Musser v. Utah*, 333 U.S. 95, 97 (1948).) "Men of common intelligence cannot be required to  
17 guess at the meaning of [an] enactment." (*Winters v. New York*, 333 U.S. 507, 515-16 (1948).)  
18 "[T]he void-for-vagueness doctrine requires that a penal statute define the criminal offense with  
19 sufficient definiteness that ordinary people can understand what conduct is prohibited and in a  
20 manner that does not encourage arbitrary and discriminatory enforcement." *Kolender v. Lawson*  
21 (1983) 461 U.S. 352, 357.

22 99. The Ordinance fails to give fair notice of the acts to be avoided and fails to give  
23 adequate safeguards to guide law enforcement in order to avoid abusive and arbitrary practices.  
24 The Ordinance is therefore void for vagueness on its face under the Due Process Clause of the  
25 Fourteenth Amendment to the U.S. Constitution.

26 100. Based on the foregoing allegations, the Ordinance is invalid.

27 101. Petitioner is entitled to attorney's fees if the Court grants the relief requested in  
28 this Third Cause of Action, as (i) this litigation is intended to result in enforcement of an  
important public right affecting the public interest; (ii) a significant benefit will be conferred on  
the general public or a large class of persons; and (iii) the necessity and financial burden of  
private enforcement are such as to make an award of attorney's fees appropriate. (Code Civ.  
Proc. §1021.5.)



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**PRAYER FOR RELIEF**

WHEREFORE, Petitioner prays for all of the following:

- A. Under the First Cause of Action, a judgment declaring that the Ordinance is invalid as the Initial Study and Negative Declaration are invalid and no EIR was prepared.
- B. Under the First Cause of Action, a peremptory writ of mandate directing the City to repeal the Ordinance, in accordance with Pub. Res. Code § 21168.9.
- C. Under the Second Cause of Action, a judgment declaring that the Ordinance is invalid as it is preempted and prohibited by the California Retail Food Code.
- D. Under the Second Cause of Action, an order directing the City to repeal the Ordinance.
- E. Under the Third Cause of Action, a judgment declaring that the Ordinance is invalid as it is unconstitutionally vague.
- F. Under the Third Cause of Action, an order directing the City to repeal the Ordinance.
- G. A preliminary injunction suspending the Ordinance and prohibiting all Respondents from implementing and enforcing the Ordinance during this litigation.
- H. Costs of this action.
- I. Attorney’s fees pursuant to Code Civ. Proc. §1021.5.
- J. Such other or further relief as the Court may deem just and proper.

DATED: August 2, 2012

**STEPHEN L. JOSEPH**



\_\_\_\_\_  
Attorney for Petitioner  
SAVE THE PLASTIC BAG COALITION

VERIFICATION

I, Stephen L. Joseph, declare:

1. I am an attorney at law, duly admitted and licensed to practice in the State of California.
2. I am the attorney of record for Petitioner, SAVE THE PLASTIC BAG COALITION, in the above-entitled matter.
3. Petitioner was formed on June 3, 2008.
4. At all times since June 3, 2008, I have been sole counsel and manager of Petitioner. In those capacities, I have been involved in and have been aware of all actions taken by Petitioner since that time.
5. I am authorized by Petitioner to make this verification for and on its behalf.
6. I have read the VERIFIED PETITION FOR WRIT OF MANDATE UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; COMPLAINT FOR INVALIDATION OF ORDINANCE BASED ON RETAIL FOOD CODE PREEMPTION AND UNCONSTITUTIONAL VAGUENESS; REQUEST FOR DECLARATORY AND INJUNCTIVE RELIEF and know its contents.
7. The matters stated therein are true of my own knowledge, except as to those matters that are stated on information and belief, and as to those matters I believe them to be true.
8. If called upon as a witness to this proceeding, I would and could competently testify thereto under oath.

I declare under penalty of perjury under the laws of the State of California that I have read the forgoing, that the foregoing is true and correct, and that I would be competent to so testify.

Executed on August 2, 2012 at San Francisco, California.



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STEPHEN L. JOSEPH

**INTRODUCTION AND SUMMARY OF LAW**

***“The road to hell is paved with good intentions”***

There are two stages when an agency proposes to rely on Guidelines §§ 15307 or 15308. If any of the conditions in the first stage are not satisfied, there is no second stage.

**First stage: Make the exemption determination**

*All* of the following conditions must be satisfied:

- A. The agency must be a “regulatory agency.” (§§ 15307 and 15308.)
- B. The regulatory action must be “authorized by state law or local ordinance.” (§§ 15307 and 15308.)
- C. The purpose of the action must be protection of the environment or a natural resource. (§§ 15307 and 15308.)
- D. The “regulatory process involves procedures for protection of the environment.” (§§ 15307 and 15308.)
- E. The agency must determine that none of the exceptions in § 15300.2 are applicable, including 15300.2(c) which states: “A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.” The agency must determine whether the exceptions in § 15300.2 apply, regardless of whether a fair argument has been made. (*Mountain Lion Foundation v. Fish & Game Commission* (1997) 16 Cal.4th 105, 124.)
- F. “Once a lead agency has determined that an activity is a project subject to CEQA, a lead agency shall determine whether the project is exempt from CEQA.” (Guidelines § 15061(a), italics added.) The determination must be made prior to project approval.

**Second stage: Respond to a “fair argument”**

If a member of the public makes a “fair argument” that there is a reasonable possibility that the activity will have a significant cumulative negative effect on the environment, the agency must also satisfy all of the following conditions.

- G. The agency must make findings of fact that refute the fair argument to a *certainty*. (*Banker’s Hill, supra*, 139 Cal.App.4th at 264; *Davidon Homes v. City of San Jose* (1997) 54 Cal.App.4th 106, 118.)
- H. The agency cannot rely on contrary evidence to refute the fair argument. (Guidelines § 15064(f)(1); *County Sanitation District No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.)
- I. The agency cannot rely on mitigation measures to refute the fair argument. (*Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster* (1997) 52 Cal.App.4th 1165, 1200; *Salmon Protection & Watershed Network v. County of Marin* (2004) 125 Cal.App.4th 1098, 1102.)
- J. The agency cannot find that greenhouse gas impacts are insignificant without making “a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from [the] project.” (Guidelines § 15064.4.)

**In this case, only condition C was satisfied.**

**ARGUMENT**

**I. The County Is Misreading The Ruling Of The Supreme Court  
In *Manhattan Beach***

The Supreme Court decision in *Manhattan Beach* controls the outcome of this case. However, the County argues that the Supreme Court's decision is inapplicable. (County brief at 16-18.)

First, the County says that *Manhattan Beach* involved an initial study followed by a negative declaration. The County asserts that *Manhattan Beach* “did not address the use of categorical exemptions in any way, except to note the city could have pursued that approach had it not instead decided to go ahead with an initial study.” (County brief at 16.)

The Supreme Court said that comprehensive environmental review “will be required” for plastic bag ban ordinances adopted by “larger governmental bodies” than the City of Manhattan Beach “which might precipitate a significant increase in paper bag consumption.” The court also said that “cumulative impacts should not be allowed to escape review when they arise from a series of small-scale projects.” (*Manhattan Beach, supra*, 52 Cal.4th at 174.)

The Supreme Court did *not* say that the City of Manhattan Beach could have relied on a categorical exemption. The Supreme Court never mentioned categorical exemptions at all. The only exemption mentioned by the court was the “common sense” exemption in Guidelines § 15061(b)(3). (*Manhattan Beach, supra*, 52 Cal.4th at 172, n.8.) The court did *not* say that a city or county larger than the City of Manhattan Beach could rely on the “common sense” exemption when there might be a significant increase in paper bag consumption.

As the Supreme Court in *Manhattan Beach* said that comprehensive environmental review “will be required” if there might be a significant increase in paper bag consumption, plastic bag ban ordinances as a *class* or *type* cannot be categorically exempt. In *Mountain Lion, supra*, the Supreme Court stated that “an activity that may have a significant effect on the environment cannot be categorically exempt.” (*Mountain Lion, supra*, 16 Cal.4th at 124.)

**Second**, the County argues that “the *Manhattan Beach* case dealt with an entirely different ordinance, and therefore entirely different facts. The Manhattan Beach ordinance, while banning plastic bags, did not take any action with respect to limiting the use of single-use paper bags as Marin County’s ordinance does.” (County brief at 17.)

The County has indeed taken action with respect to paper bags, an inconsequential five-cent paper bag fee (except for certain economically challenged consumers who pay nothing at all). The question is whether this is a high enough fee to eliminate the reasonable possibility, as a *certainty*, that there will be no significant increase in paper bag consumption. Of course, no one can be *certain* of that. In any event, evaluation of the adequacy of the fee cannot be determined as part of a categorical exemption determination. (*Azusa Land, supra*, 52 Cal.App.4th at 1200; *Salmon Protection, supra*, 125 Cal.App.4th at 1102.)

**Third**, the County argues that the words “will be required” were a paraphrasing of Plaintiff’s position by the Supreme Court. (County brief at 17.) As much as Plaintiff would like to have the power to “require” EIRs, regrettably it doesn’t. Only the courts have that power. The Supreme Court was stating its own position.

**Fourth**, the County points that the Supreme Court said that “an appropriately comprehensive environmental review” will be required. The County argues that the Supreme Court “said nothing to even infer this meant EIRs for all future ordinances or other regulations banning plastic bags irrespective of the size of the jurisdiction or the restrictions placed on paper bags.” (County brief at 17.) That is not what Plaintiff is saying. Plaintiff is saying that an EIR is required for Marin County’s Ordinance.

Since the Supreme Court decision, Plaintiff has not demanded EIRs in any city or county smaller than Manhattan Beach that has proposed to ban plastic bags, including the Cities of Carpinteria, Dana Point, Laguna Beach, Monterey, and Ojai. As for larger jurisdictions, all except three have complied with the Supreme Court decision requiring them to prepare EIRs or proposed much higher paper bag fees than Marin County, so EIR demands have been unnecessary. The exceptions are Marin County, San Francisco (which expanded its plastic bag ban in February 2012) and the San Luis Obispo County Integrated Waste Management Authority (“SLO IWMA”), all of which refused to prepare EIRs or even Initial Studies. Plaintiff has filed petitions for writs of mandate against San Francisco and the SLO IWMA under CEQA. Plaintiff has no other pending CEQA lawsuits. Plaintiff has never sued any city or county that prepared an EIR.

**II. Guidelines §§ 15307 And 15308 Must Be Interpreted In A Way That Does Not Exceed The Powers Of The Secretary Of Natural Resources**

Guidelines § 15300 explains the basis for categorical exemptions as follows:

## CATEGORICAL EXEMPTIONS

Section 21084 of the Public Resources Code requires these Guidelines to include a list of classes of projects *which have been determined* not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA.

In response to that mandate, the Secretary for Resources has *found* that the following classes of projects listed in this article do not have a significant effect on the environment, and they are declared to be categorically exempt from the requirement for the preparation of environmental documents.

(Italics added.)

The key point is that categorical exemptions are based on *predeterminations* by the Secretary for Natural Resources that particular classes of project will not have a significant negative effect on the environment. Just how far did the Secretary go when issuing Guidelines §§ 15307 and 15308? Did the Secretary exempt from CEQA all future brand new *legislation* by boards of supervisors and city councils that are merely *intended* to protect the environment? Does the Secretary have that power under the CEQA statute?

The Secretary's power is limited. "The secretary is empowered by CEQA to adopt guidelines for public agencies to follow, but these guidelines must be consistent with CEQA's express statutory requirements." (*Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 204.) "The secretary is empowered to exempt only those activities which do not have a significant effect on the environment." (*Id.* at 205.) "Even if a regulation was intended to exempt the activity at issue in *Wildlife Alive*, however, such a regulation would be invalid, because "[t]he Secretary [of the California Resources Agency] is empowered to exempt only those



activities which do not have a significant effect on the environment.” (*Berkeley Hillside Preservation v. City of Berkeley* (2012) \_\_\_ Cal.App.4th \_\_\_, Slip Op. at 11.) “Exemption categories are not to be expanded beyond the reasonable scope of their *statutory* language.” (*Mountain Lion Foundation v. Fish and Game Commission* (1997) 16 Cal.4th 105, 125, italics added.) CEQA must be interpreted so as to afford the “fullest possible protection” to the environment. (*Chickering, supra*, 18 Cal.3d. at 198; *Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 274; *Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259.)

Guidelines § 15307 states: “Examples include but are not limited to wildlife preservation activities of the State Department of Fish and Game.” The State Fish and Game *Commission* issues regulations. The Department implements and enforces those regulations. The Department’s wildlife preservation activities are far removed from any kind of legislative activity. This is a strong indication, in addition to the language of §§ 15307 and 15308, that the Secretary did not intend to exempt legislative activities.<sup>1</sup>

It is within the powers of the Secretary for Natural Resources to determine that purely regulatory actions are exempt, because environmental review (or at least the opportunity for environmental review) has already occurred at the legislative level and does not need to be repeated. Guidelines §§ 15307 and 15308 must be interpreted accordingly, so as not to encompass legislative activities within their sweep. In construing statutes, the courts must “adopt the construction that best effectuates the purpose of the law.” (*Hassan v. Mercy American River Hospital* (2003) 31

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<sup>1</sup> At page 24 opening brief, Plaintiff erroneously stated that the Department of Fish and Game issues regulations.

Cal.4th 709, 715.)

If the County's interpretation is correct, the words shown below as stricken are meaningless, inoperative, and redundant.

Class 7 consists of actions ~~taken by regulatory agencies as authorized by state law or local ordinance~~ to assure the maintenance, restoration, or enhancement of a natural resource. ~~where the regulatory process involves procedures for protection of the environment.~~

Class 8 consists of actions ~~taken by regulatory agencies, as authorized by state or local ordinance,~~ to assure the maintenance, restoration, enhancement, or protection of the environment. ~~where the regulatory process involves procedures for protection of the environment.~~

"Well-established canons of statutory construction preclude a construction which renders a part of a statute meaningless or inoperative." (*Manufacturers Life Ins. Co. v. Superior Court* (1995) 10 Cal.4th 257, 274.)

Consideration should be given to the consequences that will flow from a particular interpretation. (*Dyna-Med, Inc. v. Fair Employment & Housing Commission* (1987) 43 Cal.3d 1379, 1387.) If the Court accepts the County's interpretation, ordinances deemed to be "green" will sail through without any requirements for CEQA notices to the public or the preparation of any environmental documents. Boards of supervisors, city councils, and the public will be unaware of unintended negative environmental consequences.<sup>2</sup>

A categorical exemption for "green" ordinances would make a mockery of CEQA and would be damaging to the environment. The

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<sup>2</sup> The sole exceptions in §§ 15307 and 15308 are "construction activities" and "relaxation of standards allowing environmental degradation."

categorical exemptions in §§ 15307 and 15308 must not be treated as a license to evade CEQA. That is exactly how this case will be viewed if the County wins.

### **III. The Police Power Is Not The Basis For A Categorical Exemption**

The County argues that the Ordinance is “authorized by” the police power in the California Constitution. (County brief at 22.) The County is grasping at straws. The police power in the Constitution is not an enabling state law granting specific regulatory authority to the Marin County Board of Supervisors to ban plastic bags. There is no state law that bans plastic bags.<sup>3</sup>

### **IV. Magan Does Not Help Either Party In This Case**

The County claims that the *Magan* case “is directly supportive of Marin County’s action herein.” (County brief at 22 citing *Magan v. County of Kings* (2002) 105 Cal.App.4th 468.) In fact, *Magan* does not help either side in this case. As discussed, below, the court stated that it was not ruling on whether the ordinance adopted by Kings County Board of Supervisors qualified for a categorical exemption under §15308.<sup>4</sup>

*Magan* concerned the spreading of sewage sludge on agricultural land as a fertilizer. Sewage sludge is subject to strict standards in U.S.

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<sup>3</sup> There is a state statute that requires certain stores that provide plastic bags to (i) install plastic bag recycling bins and (ii) make reusable bags available to customers. (AB 2449, Pub. Res. Code §§ 42250-57.) The statute does not ban plastic bags. It sunsets on January 1, 2013. Pursuant to its regulatory authority in Pub. Res. Code § 40502, the California Department of Resources Recycling and Recovery (CalRecycle) has issued regulations implementing the statute. (Cal. Code Reg., tit. 14, § 17987.)

<sup>4</sup> After reviewing the opening brief, Plaintiff confesses that its short description of the ruling in *Magan* was unclear. Plaintiff discusses *Magan* here in more depth to ensure that there is no misunderstanding.

Environmental Protection Agency (“EPA”) regulations. (40 C.F.R. Part 503; *Magan, supra*, 105 Cal.App.4th at 471-472.) A State “or political subdivision thereof” may impose “more stringent” or “additional” requirements regarding sewage sludge. (40 C.F.R. § 503.5(b).) Sewage sludge is also subject to California Food and Agricultural Code § 14505 which states: “Agricultural products derived from municipal sewage sludge shall be regulated as a fertilizing material pursuant to this chapter.” Distributors of sewage sludge must be licensed by the California Department of Food and Agriculture. (Food and Agriculture Code §14591.)

In 2001, the Kings County Board of Supervisors adopted an ordinance banning the spreading of sewage sludge on agricultural land, including Class B sewage sludge. (*Magan, supra*, 105 Cal.App.4th at 471.) The Board of Supervisors approved the filing of a notice of exemption determining that the adoption of the ordinance was categorically exempt from CEQA under § 15308. (*Id.* at 472.)

Appellant Shaen Magan held permits to apply Class B sewage sludge to certain agricultural land. (*Id.*) He filed a petition for writ of mandate under CEQA challenging the ordinance. The court summarized his arguments as follows:

Appellant argues the [trial] court erred in denying his petition for writ of mandate because 1) there is no substantial evidence in the record demonstrating that the County considered whether the ordinance could have a significant effect on the environment; and 2) there is substantial evidence in the record demonstrating a reasonable possibility of environmental impacts sufficient to remove the ordinance from the exempt class.

(*Id.* at 472-473.)

The court rejected Shaen Magan's assertion under Guidelines § 15300.2(c) that there may be significant negative effects on the environment stating: "Appellant has failed to support his claims with *any* evidence in the record." (*Id.* at 472, italics by court.)

The *Magan* court did not discuss whether Kings County was entitled to rely on the categorical exemption. The court stated as follows:

With no citation to legal authority, appellant also maintains 1) the class 8 categorical exemption should not apply to the adoption of a new complex regulatory program, and 2) the County failed to consider the cumulative impact of the ordinance. We deem the points to be without foundation and waived. (See *Akins v. State of California* (1998) 61 Cal.App.4th 1, 50 [waiver of contention by failure to cite any legal authority]; *Atchley v. City of Fresno* (1984) 151 Cal.App.3d 635, 647 [where point is merely asserted by appellant without argument or authority, it is deemed to be without foundation and requires no discussion by reviewing court].)

(*Magan, supra*, 105 Cal.App.4th at 477, n.4.) Cases are not authority for propositions not considered. (*Elisa B. v. Superior Court* (2005) 37 Cal.4th 108, 118.)

**V. The Fair Argument Standard Applies To The "Unusual Circumstances" Exception**

The applicable standard for determining whether Plaintiff has demonstrated "unusual circumstances" under Guidelines § 15300(c)(2) is the "fair argument" standard. (*Banker's Hill, Hillcrest, Park West Community Preservation Group v. City of San Diego* (2006) 139 Cal.App.4th 249, 264-267.) The County says that it "has scoured the cited portion of *Banker's Hill* and can find no support for appellant's claim." (County brief at 24.) The following statements are in the *Banker's Hill* opinion:

As we will explain, we conclude that an agency must apply a fair argument approach in determining whether, under Guidelines section 15300.2(c), there is no reasonable possibility of a significant effect on the environment due to unusual circumstances. Accordingly, as a reviewing court we independently review the agency's determination under Guidelines section 15300.2(c) to determine whether the record contains evidence of a fair argument of a significant effect on the environment.

*(Banker's Hill, supra, 139 Cal.App.4th at 264.)*

We further conclude that it is consistent with the policy behind CEQA to preclude an agency from relying on a categorical exemption when there is a fair argument that a project will have a significant effect on the environment, because, as our Supreme Court has noted, the Secretary "is empowered to exempt only those activities which do not have a significant effect on the environment. [Citation.] It follows that where there is *any reasonable possibility* that a project or activity may have a significant effect on the environment, an exemption would be improper." [Citing *Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 205-206, italics by court.] This important limitation on the Secretary's authority, as established by CEQA, is best upheld by disallowing an exemption for any project where the record reflects a fair argument that there may be a significant effect on the environment due to unusual circumstances.

*(Banker's Hill, supra, at 266-267.)*

There is no separate requirement that the circumstances be "unusual." "[T]he fact that proposed activity may have an effect on the environment is itself an unusual circumstance, because such action would not fall 'within a class of activities that does not normally threaten the environment,' and thus should be subject to further environmental review." (*Berkeley Hillside Preservation v. City of Berkeley* (2012) \_\_\_ Cal.App.4th \_\_\_, Slip Op. at 13.)

Ultimately, for the purpose of this appeal, the County states that it “concedes that the actual ‘fair argument’ standard does indeed apply to this Court’s review of whether the significant effects exception applies to remove the ordinance from the ambit of the categorical exemption.” (County brief at 24.)

**VI. The Issue Of Whether The Paper Bag Fee Is A Mitigation Measure Must Be Resolved Based On The Reason For Excluding Mitigation Measures From Categorical Exemption Determinations**

The County argues that the paper bag fee is part of the “project design” and not a mitigation measure. Therefore, according to the County, the paper bag fee may be considered in refuting Plaintiff’s fair argument. (County brief at 29.) The County states: “As the County has noted throughout this brief, there is substantial evidence to support the County’s determination that a plastic bag ban combined with a fee on paper bags will result in a decrease in both types of single-use bags.” (County brief at 33, underlining by County.)

This issue of whether the paper bag fee is a mitigation measure will not be resolved by semantics. We need to look at the *reason* for excluding mitigation measures from categorical exemption determinations in order to determine whether the paper bag fee is a mitigation measure. In *Azusa Land, supra*, the court stated:

In determining whether the significant effect exception to a categorical exemption exists, “[i]t is the possibility of a significant effect ... which is at issue, not a determination of the actual effect, which would be the subject of a negative declaration or an EIR. Appellants cannot escape the law by taking a minor step in mitigation and then find themselves exempt from the exception to the exemption.”

The reason is not simply because that is what the Guidelines require; the fundamental reason is substantive. The Guidelines dealing with the second phase of the environmental review process [the Initial Study resulting in a possible Mitigated Negative Declaration] contain elaborate standards -- as well as significant procedural requirements -- for determining whether proposed mitigation will adequately protect the environment and hence make an EIR unnecessary; in sharp contrast, the Guidelines governing preliminary review do not contain any requirements that expressly deal with the evaluation of mitigation measures.

(*Azusa Land, supra*, 52 Cal.App.4th at 1200, citations omitted.)

Based on the reasoning in *Azusa Land*, there is no adequate procedure and there are no requirements or standards for evaluating the five-cent paper bag fee as part of the categorical exemption determination process. The fee must be evaluated as part of an Initial Study to determine if it is high enough such that it “will adequately protect the environment and hence make an EIR unnecessary.” (*Id.*) Therefore, the fee must be treated as a mitigation measure. It cannot be relied upon by the County to refute Plaintiff’s fair argument.

**VII. The County Has Admitted That Plaintiff Made A Fair Argument Regarding Paper Bags If The Paper Bag Fee Is Not Taken Into Account**

The County asserts that “the only potential significant environmental impact [Plaintiff] apparently alleges is ‘greenhouse gas emissions.’” (County brief at 24.) In fact, Plaintiff submitted studies that showing that paper bags are significantly worse than plastic bags regarding greenhouse gas emissions, ground level ozone formation, atmospheric acidification, water consumption, and solid waste generation (i.e. landfills). (See Plaintiff’s Opening Brief at 5-11.) This is a mountain of evidence with



which the County does not disagree.

As noted in the Plaintiff's opening brief, the Ordinance states that "the use of single-use paper bags result in *greater* (GHG) emissions, atmospheric acidification, water consumption, and ozone production than single-use plastic bags." (AR tab E. italics added.) In its brief in the trial court, the County stated:

The County agrees with [Plaintiff's] primary argument herein that in several respects, the negative environmental impacts from the production, use and disposal of single-use paper bags are as bad, if not worse, than the impacts from single-use plastic bags.

(County's Trial Court Brief at 1-2.) In this brief in this Court, the County states:

However, it is equally true that almost no one would deny [Plaintiff's] primary point that severely limiting the use of single-use plastic bags would not have an overall environmentally beneficial effect if single-use plastic bags were merely replaced by single-use paper bags as opposed to reusable bags.

(County's Brief at 4-5.)

The Ordinance states that plastic and paper bags have "severe" environmental impacts. (AR tab E.) The Agricultural Commissioner states as follows in his letter:

The Marin County Hazardous and Solid Waste Joint Powers Authority, made up of representatives from each of the 11 cities and towns in Marin as well as the County of Marin, estimates that Marin residents use upwards of 138 million bags annually that end up in Marin's landfill or in the waste stream. Bags have been baled together into shipping containers and sent to distant lands for handling – often to be burned or buried.

From state waste characterization studies, this is equivalent to 539.87 tons or 1,079,736 lbs. of plastic bags.

(AR tab 83 at 2.) The letter contains no figure for paper bags in Marin's landfill or the waste stream.

If there is a major shift to paper bags, there will be significant negative impacts. Paper bags produce between 2.0 and 3.3 times more greenhouse gas emissions than plastic bags. Guidelines § 15064.4 states that the agency must make a good faith effort to describe, calculate, or estimate greenhouse gas emissions. The County argues that this only applies to Initial Studies. (County brief at 24.) However, § 15064.4 does not mention Initial Studies. It applies when making a "determination of the significance of greenhouse gas emissions," which would include an agency response to a fair argument as part of a categorical exemption determination. This was not done by the County.

Plaintiff is not required to do the greenhouse gas calculations. That is the County's responsibility. "CEQA places the burden of environmental investigation on government rather than the public. If the local agency has failed to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record." (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311.)

Landfill space is a significant and critical issue in Marin County, as the County points out in its brief. (County brief at 7; AR tab A at 52-53.) Paper bags produce between 2.7 and 4.8 times *more* solid waste than plastic bags, meaning that an increase in paper bag usage will significantly and negatively impact Marin's landfill. (See Plaintiff's opening brief at 6-7.) In fact, a shift to paper bags will have even greater impacts, because paper bag

handles are weak and therefore store baggers often double-bag or only half fill paper bags. (See photo at AR tab F at 17.) The Ordinance will or may make the landfill problem significantly *worse* by *adding* many hundreds of tons of higher volume paper bag waste each year.

In view of its admissions, how can the County legitimately deny that the Ordinance may have a significant negative impact on the environment? The County is entirely dependent on its assertion that “there is substantial evidence to support the County's determination that a plastic bag ban combined with a fee on paper bags will result in a decrease in both types of single-use bags.” (County brief at 33, underlining by County.) However, the County cannot rely on the fee or any contrary evidence in refuting Plaintiff's “fair argument” under Guidelines § 15300.2(c). (Guidelines § 15064(f)(1); *Azusa Land, supra*, 52 Cal.App.4th at 1200; *County Sanitation District No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.)

There is no statement in the Agricultural Commissioner's letter (AR tab 83), the Ordinance (AR tab E), the Notice of Exemption (AR tab E at 6), or the County's brief that the County takes the position that it is *certain* that there will be no significant negative environmental impacts, even with the five-cent paper bag fee taken into account. It is not a position that the County could have taken. No one can say for sure that there will be no significant negative environmental impacts.

**VIII. The District of Columbia Experience Does Not Refute To A Certainty Plaintiff's Fair Argument Regarding Paper Bags**

The County states as follows:

And as even appellant is forced to admit, the record herein contains several examples of regulations where even a small charge greatly influenced consumer behavior. The most recent and relevant is the experience

in Washington, D.C. where a plastic bag ban combined with a five (5) cent fee on paper bags resulted in a 50-60 per cent reduction in all single-use bags.

(County brief at 27-28.) This is the County talking about the sufficiency of the five-cent fee, which is a mitigation measure that cannot be part of refuting Plaintiff's fair argument. Further, "if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect." (Guidelines § 15064(f)(1); see also *County Sanitation District No. 2, supra*, 127 Cal.App.4th at 1580 ["If substantial evidence establishes a reasonable possibility of a significant environmental impact, then the existence of contrary evidence in the administrative record is not adequate to support a decision to dispense with an EIR."]) Therefore, Plaintiff objects to reliance on the DC experience.

In any event, without waiving the objection, the DC experience is not comparable to Marin County. Plaintiff pointed out in its Objections that the Agricultural Commissioner had omitted critically important facts about the DC experience. (AR tab F at pages 19-21. Plaintiff submitted documentary support, including the DC ordinance and regulations and other relevant documents. AR tabs 57-63, 80, 84.) The facts about the DC experience, as stated in the Objections are as follows.

Effective January 1, 2010, DC law requires stores to charge a five-cent fee for plastic and paper bags. (AR tab 84.) The Marin Agricultural Commissioner cited the example of DC in his December 7, 2010 letter to the Board of Supervisors, claiming that DC experienced a significant reduction in single-use bags. However, he admitted: "It is still too early to

document reductions with certainty....” (AR tab 83 at 4.)

The DC Government and retailers instituted a massive reusable bag giveaway program after the effective date of the fee on January 1, 2010. For example, Giant Food stores gave away 250,000 reusable bags. CVS pharmacies in association with the DC Government gave away 112,000 reusable bags. Safeway stores gave away 10,000 reusable bags. (AR tabs 58-63 and 80.) On average, every household in DC received at least 1.5 free reusable bags in 2010 from these sources. (AR tab F at 20.) That explains why there was an upsurge in the number of reusable bags, rather than the fee on plastic and paper bags. When the reusable bags become dirty and worn, they will be discarded. At that point, the majority of consumers may prefer to pay the five-cent fee rather than purchase more expensive reusable bags.

*There is nothing in the record indicating that Marin County or stores in Marin County planned a similar giveaway program after the Ordinance was adopted.*

In DC, stores keep one cent of the five-cent fee and remit four cents to the DC Government. However, the DC regulations provide that the store may retain an additional cent if it “[c]redits the customer at least five cents (\$0.05) for each carryout bag provided by the customer for packaging his or her purchases, regardless of whether the bag is paper, plastic, or reusable.” (AR tab 80 at 5-6.) Pursuant to the program, Giant and Target in DC give a five-cent discount for each reusable bag that customers provide. (AR tabs 58, 59.)

*In Marin County, where stores retain the entire fee, there is no similar credit program.*

In DC, part of the fee remitted to the DC Government must be used for “[p]roviding reusable carryout bags to District residents, with priority distribution to seniors and low-income residents.” (AR tab 84 at 4.)

*In Marin County, there is no similar program.*

Comparing Marin County with DC is comparing apples and oranges. Even if the DC experience could be taken into account as part of a categorical exemption determination, it does not refute to a certainty Plaintiff’s fair argument that the Marin County Ordinance may have a significant negative impact on the environment.

The Agricultural Commissioner did not cite the fee experience in any other jurisdiction. (AR tab 83.)

**IX. Plaintiff Made A Fair Argument Regarding The Impacts Of Reusable Bags, Which The County Has Completely Ignored**

Plaintiff made a fair argument that an increase in the number of non-recyclable resource-heavy reusable bags resulting from the Ordinance may have a significant negative impact on the environment. The Los Angeles County EIR found that polypropylene and cotton reusable bags must be used at least 104 times before offsetting their enormous negative environmental impacts compared to a plastic bag. (See Plaintiff’s opening brief at 13-15.)<sup>5</sup> Plaintiff recommends that this Court read AR tab 31,

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<sup>5</sup> The County points out that the hyperlink for the LA County EIR in Plaintiff’s Objections is different from the link in Plaintiff’s opening brief. (County brief at 11.) LA County canceled the prior link and consolidated the links to all of its environmental documents on its ordinance on a single web page. [http://dpw.lacounty.gov/epd/aboutthebag/ordinance\\_govt.cfm](http://dpw.lacounty.gov/epd/aboutthebag/ordinance_govt.cfm). Plaintiff quoted the relevant portions of the LA County EIR in its Objections and requested that the full EIR be made part of the administrative record. (AR tab F at 39-40, AR tab 86.)

which is an excellent *Wall Street Journal* article about the huge negative environmental impacts that result from the underuse of reusable bags.<sup>6</sup>

The County doesn't mention the negative environmental impacts of reusable bags in its brief, thereby conceding that Plaintiff made a fair argument regarding reusable bags.<sup>7</sup>

**X. The Countywide Impacts Of The Ordinance Must Be Take Into Account, Just As The County Has Done**

The Agricultural Commissioner cites countywide impacts, including all of the cities in the County, to assess the beneficial impacts of the Ordinance. (AR tab 83 at 2.) However, when Plaintiff says that countywide impacts, including all of the cities, are relevant in assessing the negative impacts of the Ordinance, the County says that is inappropriate. (County brief at 30-32.) The County is blatantly applying a double standard. Countywide impacts are relevant, because the Ordinance is the first stage of a countywide project. Marin County is proceeding slice by slice, a salami strategy to encompass all of the cities and all of the stores in the county. This is the right stage for the EIR. If not now, when?

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<sup>6</sup> The overwhelming majority of reusable bags are imported from China. (AR tab F at 22, 23, 31, 32; AR tab 31.) About 72.5% of plastic bags used in the USA are made in the USA. In its Objections, Plaintiff stated that the domestic production figure was 85%, but that figure is now outdated. (AR tab F at 5.)

<sup>7</sup> The negative environmental impacts of reusable bags were not mentioned in the Supreme Court's opinion in *Manhattan Beach* and were not part of that case. The Los Angeles County EIR, which evaluated the impacts of reusable bags, was completed two years after the City of Manhattan Beach adopted its ordinance.

**XI. Plaintiff Did Not Fail To Exhaust Administrative Remedies**

For the first time in this case, the County argues that Plaintiff did not exhaust its administrative remedies, because Plaintiff did not present legal positions before the Ordinance was adopted regarding the applicability of §§ 15307 and 15308 or reliance on mitigation measures. (County brief at 19-21 and 29.) Failure to exhaust remedies is not mentioned as a defense in the County's Answer To Verified Petition. The County has waived the defense and Plaintiff objects to it being raised now. As discussed below, without waiving the objection, Plaintiff did not fail to exhaust administrative remedies.

**The Marin Guidelines**

CEQA Guidelines § 15062(b) states:

A Notice of Exemption may be filled out and may accompany the project application through the approval process. The notice shall not be filed with the county clerk or the OPR until the project has been approved.

Marin County has issued "Environmental Impact Review Guidelines" that were adopted by the Board of Supervisors ("Marin Guidelines"). These are described as "policy and procedures for implementation of the California Environmental Quality Act (CEQA)." Marin Guidelines § I states: "County Agencies and Departments must follow these procedures in addition to the State requirements for implementing CEQA." They can be downloaded at: <http://goo.gl/QPucX> or <http://www.co.marin.ca.us/depts/CD/main/pdf/eir/ERGuide1994.pdf>.

Marin Guidelines § IV(D)(6) implements CEQA Guidelines §15062(b). Marin Guidelines § IV(D)(6) states:



Preliminary Review. Immediately after determining the application is complete, the Lead County Department *shall* transmit the required project description and environmental data to the Environmental Coordinator in the Community Development Agency for preliminary review. If the Lead County Department initially concludes that a project should be exempted from CEQA review, the Lead County Department *shall* fill out a Notice of Exemption form for preliminary review (see Appendix C). The Environmental Coordinator *shall* review the project and make the following determination:

b. Determine if the project can be exempted by statute, including, but not limited to...by categorical exemption (see Article 19, commencing with Section 15300 of the State CEQA Guidelines).

(Italics added.)

### Chronology

In this case, there was no proposed Notice of Exemption or determination of exemption by the Environmental Coordinator or the Board of Supervisors prior to or simultaneous with adoption of the Ordinance. Here is a chronology of what happened, and what didn't happen.

On December 7, 2010, the Agricultural Commissioner wrote to the Board of Supervisors making "recommendations." He stated in relevant part as follows:

By enforcing both the ban on plastic and a mandatory charge on paper bags, the County achieves a clearly preferable result. Thus, under CEQA, the County of Marin *can* claim a categorical exemption by demonstrating and achieving a result that is environmentally superior: moving people to reusable bags and reducing waste from all single-use products.

(AR tab 83 at page 4 and tab B at page 4, italics added.) The letter did not cite any CEQA Guidelines sections. There was no other mention of

categorical exemptions in the letter.

On December 28, 2010, Plaintiff submitted its Objections to the County. Plaintiff stated therein:

The County may not rely on a categorical exemption to avoid preparing an EIR.

It is not clear whether the County is relying upon a categorical exemption under CEQA.

(AR tab F at 36.)

Despite the fact that Plaintiff told the County that it was not clear whether the County would be relying on a categorical exemption, the County did nothing to clarify the situation. On January 4, 2011, the Agricultural Commissioner sent the same “recommendations” letter to the Board of Supervisors, advising the Board of Supervisors again that the County “can” claim a categorical exemption. (AR tab C.)

On January 25, 2011, the Board of Supervisors adopted the Ordinance. It did not determine that the Ordinance was categorically exempt from CEQA. There is no mention of CEQA or any exemptions in the Ordinance.

Prior to the adoption of the Ordinance, there was no proposed Notice of Exemption or transmittal of the project description and environmental data to the Environmental Coordinator in the Community Development Agency for preliminary review. The Environmental Coordinator did not conduct an environmental review. The Environmental Coordinator also did not make a determination that any categorical exemptions were applicable. The Marin Guidelines were ignored and violated.

On February 24, 2011, Plaintiff filed its Petition for Writ of Mandate. Plaintiff was not aware of any Notice of Exemption at that time

as no such notice had been filed with the County Clerk or sent to Plaintiff.

In the Petition, Plaintiff stated:

The County has indicated that it might claim a categorical exemption under CEQA as the basis for not preparing an Initial Study or EIR. At the time of preparing this Petition, the County has made no official statement that it is relying on a categorical exemption and it has not filed a Notice of Exemption with the County Clerk or the State Clearinghouse pursuant to CEQA Guidelines §15062.

(Verified Petition for Writ Of Mandate ¶81.)

On March 2, 2011, the County filed the Notice of Exemption with the Marin County Clerk. (AR tab E at 6.) The Notice is signed by the Marin County Environmental Coordinator. It is dated February 3, 2011, nine days *after* the Ordinance was adopted. Plaintiff does not know why the County did not file it until a full month after it was apparently signed.<sup>8</sup>

The Notice of Exemption was not sent to Plaintiff prior to the filing of the lawsuit, despite Plaintiff's written request on December 28, 2010 for "any notices regarding the proposed ordinance." (AR tab F at 41.)

The "Reasons for Exemption" section in the Notice of Exemption states in its entirety as follows:

The ordinance is intended to maintain, restore and enhance natural resources and the environment generally based upon substantial evidence that it will reduce the County's contribution of oil-based plastic waste as well as paper waste to landfills; reduce oil consumption and greenhouse gas emissions in general; reduce the amount of plastic and paper litter in the environment; and reduce degradation of the marine environment and harm to

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<sup>8</sup> "Approved 1/25/11" is handwritten on the Notice of Exemption, but there is nothing in the record showing that an exemption was approved on that date. The person who wrote that notation must have been referring to the date of approval of the Ordinance.

marine wildlife.

(AR tab E at 6.) There was no mention of the five-cent paper bag fee in the Notice of Exemption.<sup>9</sup>

In its opening brief in the trial court, Plaintiff argued that the Ordinance was not adopted as part of a “regulatory” process involving procedures for the protection for the environment. (Plaintiff’s trial court opening brief at 9.) The first time that the County ever stated that it was relying on the five-cent paper bag fee *as the basis for its reliance on the categorical exemptions* was in its trial court brief. (County’s trial court brief at 12.) In its reply brief, Plaintiff responded by pointing out that the fee is a mitigating factor that may not be considered for the purpose of a categorical exemption determination. (Plaintiff’s trial court reply brief at 1, 6-7.)

#### **Discussion**

“Once a lead agency has determined that an activity is a project subject to CEQA, a lead agency shall determine whether the project is exempt from CEQA.” (Guidelines § 15061(a).) The County did not make a categorical exemption determination, or even give notice that it proposed to make a determination, until after the Ordinance was adopted. Plaintiff raised all of the grounds for noncompliance as soon as the County stated that it was relying on the categorical exemptions and explained the basis for its reliance.

The County cites Pub. Res. Code § 21177(a). (County brief at 19-21.) That provision requires that “the alleged grounds for noncompliance with this division were presented to the public agency orally or in writing

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<sup>9</sup> The allegation that plastic bags are made of oil is another myth. (AR tab F at 5.)

by any person during the public comment period provided *by this division* or prior to the close of the public hearing on the project before the issuance of the notice of *determination*.” That section does not apply to this case for two reasons.

First, there was no CEQA public comment period. “CEQA provides for public comment on a negative declaration and an EIR. By contrast, CEQA does not provide for a public comment period before an agency decides a project is exempt.” (*Azusa Land, supra*, 52 Cal.App.4th at 1210, citation to Guidelines omitted.)

Second, there was no notice of “determination.” A “Notice of Determination” is only filed for a project that is *not* exempt. (Guidelines §§ 15075, 15373.) CEQA Guidelines Appendix D is a Notice of Determination. A “Notice of Exemption” is a notice that the project is exempt from CEQA under a categorical or other exemption. (Guidelines §§ 15062 and 15374.) CEQA Guidelines Appendix E is a Notice of Exemption.

In *Azusa Land*, the court held that there is no exhaustion of remedies requirement for categorical exemptions as there is no CEQA public comment period and no notice of “determination” for categorical exemptions. (*Azusa Land, supra*, 52 Cal.App.4th at 1210, citation to Guidelines omitted.)

The County cites *Hines v. California Coastal Commission* (2010) 186 Cal.App.4th 830. (County brief at 19.) In that case, the writ petition filed by the appellants sought to overturn an approval by the Sonoma County Board of Supervisors of a coastal permit to construct a residence and a use permit allowing reduction of a riparian corridor setback from 100 feet to 50 feet for the project. Sonoma County noticed the appellants and

other owners of property within 300 feet of the subject property by mailing notice of the applicant's permit application and of the public hearing to be held before the Board of Zoning Appeals. The court stated:

The notice advised that the County Permit and Resources Management Department had determined the project to be categorically exempt from CEQA, because CEQA Guidelines provide a categorical exemption for new construction and conversion of small structures. (Cal. Code Regs., tit. 14, § 15303, subd. (a).) The notice also advised that appeals of the [Board of Zoning Appeals] determination could be made to the Board [of Supervisors] and the Board [of Supervisor's] decision could be appealed to the Coastal Commission. The notice further advised that in a later court challenge to the project "you may be limited to raising only those issues previously raised before the [BZA] at the hearing or in written form delivered to the [BZA] prior to or at the hearing."

(*Hines, supra*, 186 Cal.App.4th at 836.) The Board of Supervisors found that the project was categorically exempt from CEQA under Guidelines § 15303. (*Id.* at 839.) The appellants' appeal to the Coastal Commission was unsuccessful.

The appellants conceded that the project would normally be exempt under § 15303. (*Id.* at 851.) However, in court they attempted for the first time to make a fair argument that there were unusual circumstances under 15300.2(b) and (c). (*Id.* at 852-853.) The court ruled that they had failed to exhaust their administrative remedies. (*Id.* at 855.) The court stated that the normal rule that exhaustion of remedies does not apply to categorical exemptions did not apply under the particular circumstances of that case for two reasons. First, Sonoma County's CEQA ordinance required a public hearing on the exemption determination and the environmental documents generally, which was held by the Board of Zoning Appeals. (*Id.* at 854-

855.) Second, the appellants had received ample formal notice of the categorical exemption hearing and had testified at the hearing. (*Id.* at 854.) The *Hines* court did not disagree with *Azusa Land* and cited the case. (*Id.*)

The facts of *Hines* are distinguishable from the instant case. In *Hines* there was a public hearing on an actual exemption determination. The appellants had ample notice and opportunity to present their fair argument at that time in response to the determination of exemption, but failed to do so. The failure of the appellants to make a fair argument and provide supporting evidence meant that the court could not decide the case based on the administrative record.

In the instant case, there was a vague statement in a “recommendation” letter from the Agricultural Commissioner that the County “can” (i.e. could in theory) rely on a categorical exemption. The lead agency did not “fill out a Notice of Exemption form for preliminary review” as required by the Marin Guidelines. No determination of exemption was made by the Environment Coordinator or the Board of Supervisors prior to adoption of the Ordinance (in violation of the Marin Guidelines and Pub. Res. Code § 15061(a)). Plaintiff objected to the potential reliance on categorical exemptions, made a fair argument, and presented all of its evidence supporting its fair argument before the Ordinance was adopted.

Under these circumstances, Plaintiff was not required to make comprehensive legal objections or arguments in anticipation of the mere possibility that the Environmental Coordinator might decide at some point to issue a proposed Notice of Exemption, as he was required to do under the Marin Guidelines. There was a range of possibilities as to how the County might proceed under CEQA, including preparing an Initial Study

and issuing a Negative Declaration, or preparing an EIR. The County should have provided clear notice to Plaintiff.<sup>10</sup>

**XII. The Board Of Supervisors And The Public Need To Know The Facts, Not Fiction Such As The Absurd \$200 Figure In the Agricultural Commissioner's Letter**

The County touts the alleged positive effects of the Ordinance in reducing the number of plastic bags that become litter or end up in landfills and the associated costs. (County brief at 5-7.) However, “[t]he positive effects of a project do not absolve the public agency from the responsibility of preparing an EIR to analyze the potentially significant negative environmental effects of the project, because those negative effects might be reduced through the adoption of feasible alternatives or mitigation measures analyzed in the EIR.” (*County Sanitation Dist. No. 2, supra*, 127 Cal.App.4th at 1558.)

The County cites litter statistics in a law review article that was filed in the trial court, but is not in the administrative record. (County brief at 5.) The article states that plastic bags were the second most found item on beaches, representing 12% of the items found, citing the Ocean Conservancy website. Plaintiff objects as the article is not in the administrative record. Without waiving the objection, based on 25 years of litter cleanups, Ocean Conservancy reported in 2011 that plastic bags are the *sixth* most found item, representing 5% of the items found. This includes every type of plastic bag, including grocery bags, produce bags,

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<sup>10</sup> At this time, a case is pending in the Supreme Court in which the sole issue is whether Pub. Res. Code § 21177 requires a petitioner to exhaust administrative remedies before challenging a public agency’s decision that a project is categorically exempt from CEQA. (*Tomlinson v. County of Alameda*, Cal. Supr. Ct. No. S188161, 188 Cal.App.4th 1406.)



merchandise bags, and newspaper bags.<sup>11</sup>

The Agricultural Commissioner's letter states:

Californians Against Waste (CAW) estimates that state residents pay up to **\$200 per household** per year in state and local fees and taxes to clean up litter and waste associated with single-use bags.

(AR tab 83 at 2, emphasis added.) The Commissioner simply accepted the figure without question or verification. The \$200 figure is absurd.

Based on the administrative record, the real cost is no more than **\$2.77 per household** per year or **91 cents per person** per year for plastic bag litter cleanup and disposal of plastic bags in landfills. (See calculation on page 33 of this brief.)<sup>12</sup>

The County mentions the Redwood Landfill. (County brief at 7.) Based on the Redwood Landfill contract tipping fee of about \$55 per ton, Marin residents actually pay less than \$2.77 per household or 91 cents per person. (<http://goo.gl/tKPUc>.) Marin residents pay about **\$1.12 cents per household** per year or **37 cents per person** per year, for all costs of plastic bag litter cleanup and landfill tipping fees. (See calculation on page 33 of this brief.) The Redwood Landfill tipping fee figure is not in the record, but Plaintiff mentions it here for the purpose of cross-checking to confirm that the \$200 figure is a massive exaggeration.

The Los Angeles County EIR found that adopting plastic bag ban ordinances in the unincorporated part of the county and all of the cities in the county, with a ten-cent fee on paper bags, would have the following

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<sup>11</sup> Ocean Conservancy, Int'l Coastal Cleanup Global Summary 2011. ([http://www.oceanconservancy.org/news-room/collateral/icc2011report\\_global\\_final.pdf](http://www.oceanconservancy.org/news-room/collateral/icc2011report_global_final.pdf))

<sup>12</sup> As the Agricultural Commissioner provided no figures for paper bag usage or tonnage in Marin County, Plaintiff cannot calculate paper bag landfill costs.

result: “Reduce by \$4 million the County’s, cities’, and Flood Control District’s costs for prevention, cleanup, and enforcement efforts to reduce litter in the County.” (Los Angeles County EIR at V-2.) \$4 million amounts to **\$1.25 per household per year or 41 cents per person per year.**<sup>13</sup>

To put the figures in perspective, each state resident pays less per year for plastic bag litter cleanup and landfill disposal than the cost of one reusable bag. Plaintiff acknowledges that low dollar impacts do not mean low environmental impacts. However, the Agricultural Commissioner made a dramatic and wildly inaccurate assertion about costs and it is appropriate for Plaintiff to respond, especially as the County has raised the litter and landfill cost issues in its brief.

The important point is that staff reports, such as the Agricultural Commissioner’s letter, are not subject to any rules or standards whatsoever. The outlandish \$200 figure would be unacceptable in an EIR. Categorically exempting “green” *ordinances* from the CEQA process is not the right way to go if we want environmental policy and laws to be based on fact, not fiction.<sup>14</sup>

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<sup>13</sup> The population of Los Angeles County is 9.8 million. The number of households is 3.2 million. (<http://quickfacts.census.gov/qfd/states/06/06037.html>.) Plaintiff pointed out to Los Angeles County that far less than \$4 million would actually be saved in litter costs if plastic bags are banned as the same streets, highways, rivers, creeks, and beaches would still have to be cleared of other types of litter. (AR tab F at 40.)

<sup>14</sup> Santa Cruz County has passed an ordinance banning plastic bags. The ordinance states: “According to Californians Against Waste, Californians pay up to \$200 per household each year in State and Federal taxes to clean up litter and waste associated with single-use bags....” (County of Santa Cruz Ordinance No. 5103 § 5.48.010(B)(9), <http://goo.gl/PUdEi>.) The findings in the Santa Cruz County ordinance are full of myths and exaggerations. Santa Cruz County did not prepare an EIR. However, it has imposed a 25-cent paper bag fee. (§ 5.48.020(C).)

**CALCULATION OF ANNUAL COST PER HOUSEHOLD AND  
PER PERSON FOR PLASTIC BAG LITTER AND WASTE**

**The claim:** “Californians Against Waste estimates that state residents pay up to \$200 per household per year in state and local fees and taxes to clean up litter and waste associated with single-use bags.” (AR tab 83 at 2.) If that figure is correct, the statewide cost would amount to \$2.48 billion. (There are 12.4 million households and 37.7 million residents in California. <http://quickfacts.census.gov/qfd/states/06000.html>.)

**Statewide litter costs:** According to the Commissioner’s letter and the LA County EIR, the cleanup and disposal budget for all public agencies in California for all types of litter, not just plastic and paper bags, is **\$375 million**. (AR tab E at 2; LA County EIR at 13-16.)

**Plastic bag percentage of total litter:** San Francisco conducted a litter audit before it banned plastic bags in 2007 and found that plastic bags (including retail and non-retail bags) were **2.5%** of total litter. (AR tab 78 at 29.) Toronto conducted a litter audit in 2006 and found that plastic bags (including retail and non-retail bags) were 1.72% of total litter. At that time, there were no plastic bag restrictions in Toronto. (AR tab 77 at 35.) There are no other litter audits in the record.

**Plastic bag litter cost per household:**  $(\$375 \text{ million} \div 12.4 \text{ million}) \times 2.5\% = \underline{\underline{76 \text{ cents}}}$  per household per year. (**25 cents** per person per year.)

**Statewide landfill costs for plastic bags:** The Commissioner states that public agencies in California spend an additional “**\$25 million** to dispose of discarded plastic bags in landfills.” (AR tab 83 at 2.)

**Statewide plastic bags landfill cost per household:**  $\$25 \text{ million} \div 12.4 \text{ million} = \underline{\underline{\$2.01}}$  per household = **66 cents** per person per year.

**Marin landfill cost for plastic bags:** The Redwood Landfill tipping fee is about \$55 per ton. (<http://goo.gl/tKPUc>.) Marin disposes of 539.87 tons of plastic bags annually. (AR tab 83 at 2.) Therefore, landfill cost =  $\$29,692 = \underline{\underline{36 \text{ cents}}}$  per household = **12 cents** per resident per year.

**Based on the record, the statewide cost for plastic bag cleanup and disposal = \$2.77 per household = 91 cents per person.**

Marin residents pay less. They pay about  
\$1.12 cents per household = 37 cents per person.

**CONCLUSION**

The Supreme Court ruling in *Manhattan Beach* requires that the County prepare an EIR before banning plastic bags. The County abused its discretion and violated CEQA by not preparing an EIR.

WHEREFORE, Plaintiff requests that this court reverse the judgment of the trial court denying the writ of mandate; order or require the trial court to order repeal of the Ordinance; and order or require the trial court to order the County to prepare an EIR before banning plastic bags.

DATED: April 3, 2012

**STEPHEN L. JOSEPH**

A handwritten signature in black ink, appearing to read 'S. L. Joseph', with a long horizontal line extending from the top of the signature.

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Attorney for Plaintiff and Appellant  
SAVE THE PLASTIC BAG COALITION

**CERTIFICATE OF COMPLIANCE**

Pursuant to Rule 8.204(c) of the California Rules of Court, I hereby certify that this brief contains 9,368 words, including footnotes, excluding the Table of Contents, the Table of Authorities, this Certificate of Compliance, and the Proof of Service.

In making this certification, I have relied on the word count of the computer program used to prepare the brief.

DATED: April 3, 2012

**STEPHEN L. JOSEPH**

A handwritten signature in black ink, appearing to be 'S. L. Joseph', with a long horizontal line extending to the right from the top of the signature.

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Attorney for Plaintiff and Appellant  
SAVE THE PLASTIC BAG COALITION

**PROOF OF SERVICE**

**STATE OF CALIFORNIA, COUNTY OF SAN FRANCISCO**

I am an active member of the State Bar of California and not a party to the within action. My business address is 350 Bay Street, Suite 100-328, San Francisco, CA 94133.

I served the foregoing document described as APPELLANT'S REPLY BRIEF in this action as follows.

**BY FEDERAL EXPRESS**

I maintain an account with Federal Express. On April 4, 2012, I placed one true copy of said document in a sealed Federal Express container and deposited it in a Federal Express drop-off receptacle in San Francisco, California. The Airbill was marked "FedEx Priority Overnight (Next business morning)" delivery; payment to be charged to sender's account; and permit delivery without signature. The names and address on the Airbill and the numbers of copies enclosed were as follows:

Patrick K. Faulkner  
COUNTY COUNSEL  
David L. Zaltsman, Deputy  
3501 Civic Center Drive, #275  
San Rafael, CA 94903  
Phone: (415) 499-6127

County Counsel and I have agreed that we will serve all briefs by Federal Express or other overnight means, next business morning delivery.

**BY PERSONAL DELIVERY**

On April 4, 2012, I personally delivered four copies to the Supreme Court of California at the following address:

Supreme Court of California  
350 McAllister Street  
San Francisco, CA 94102-4797

**BY MAIL**

On April 4, 2012, I placed true copies thereof in sealed envelopes with postage fully prepaid in the United States Mail at San Francisco, California. The names and addresses on the envelopes and the number of copies were as follows:

One copy for delivery to Superior Court Judge Lynn Duryee:

Civil Clerk  
Room 113  
Marin County Superior Court  
3501 Civic Center Drive  
San Rafael, CA 94903

One copy addressed as follows:

Office of the Attorney General  
1300 "I" Street  
Sacramento, CA 95814-2919

I am aware that on motion of the party served, service is presumed invalid if the postal cancellation date or postage meter date is more than one day after the date of deposit for mailing stated herein.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on April 4, 2012 at San Francisco, California.

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STEPHEN L. JOSEPH

So, in summary, I support the goal of trying to reduce waste, but object to the concept of charging consumers for carry-out bags. Other ways to encourage consumers to use reusable bags should be considered, and if fees must be charged, the money collected should somehow benefit the community instead of the retailer's gross revenue.

Regards, Judy Kishimura  
527 McCormick Court  
Capitola, CA 95010



ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CAPITOLA  
ENACTING A NEW CHAPTER 8.07 OF THE CAPITOLA MUNICIPAL CODE  
RELATED TO THE REDUCTION OF SINGLE-USE  
PLASTIC AND PAPER CARRYOUT BAGS**

BE IT HEREBY ORDAINED BY THE CITY COUNCIL OF THE CITY OF CAPITOLA AS FOLLOWS:

Section 1. Chapter 8.07 is hereby added to the Capitola Municipal Code to read as follows:

**“CHAPTER 8.07”  
SINGLE-USE PLASTIC AND PAPER CARRYOUT BAG REDUCTION**

Sections:

8.07.010 Purpose and Findings

8.07.020 Definitions

8.07.030 Ban on Plastic Carryout Bags and Store Charge for Single-Use Paper Carryout Bags

8.07.040 Implementation

8.07.050 Exemptions Allowing Single Use Bags

8.07.060 Enforcement

8.07.070 Violations

8.07.080 Severability

8.07.090 Effective Date

8.07.100 No Conflict With Federal or State Law

8.07.110 Preemption

**8.07.010 Purpose and Findings.**

A. It is the intent of the City of Capitola, in enacting Chapter 8.07 to eliminate the common use of plastic single-use carryout bags, encourage the use of reusable bags by consumers and retailers, and to reduce the consumption of single-use bags in general.

B. Whereas the City of Capitola has an obligation to protect the environment, the economy, and public health. The City of Capitola has a 75 percent waste reduction goal, which is to be reached by waste reduction, reuse, recycling, and composting. The City of Capitola makes the following findings:

1. The Department of Resources Recycling and Recovery (CalRecycle) estimates that Californians use nearly 20 billion single-use plastic bags per year and discard over 100 hundred plastic bags per second. Further the Environmental Protection Agency estimates that only 5 percent of the plastic bags in California and nationwide are currently recycled.

## Item #: 9.B. Attach 2.pdf

ORDINANCE NO. \_\_\_\_

2. According to Save Our Shores, a Santa Cruz based marine conservation non-profit that conducts beach, river, and inland cleanups in the coastal regions of Santa Cruz, San Mateo, and Monterey Counties, from June 2007 to May 2011, over 400 cleanups were conducted where volunteers removed a total of 26,000 plastic bags. Unchecked, this material would have likely entered the marine environment of the Monterey Bay National Marine Sanctuary.

3. Plastic bags returned to supermarkets may be recycled into plastic lumber; however, a very low percentage of bags are actually returned. Recycling bags into lumber does not reduce the impact of making new plastic carryout bags. The CalRecycle 2009 Statewide Recycling Rate for Plastic Carryout Bags report indicates that of the 52,765 tons of regulated bags purchased statewide, only 1,520 tons were collected for recycling, a recycling rate of about 3%.

4. The City of Capitola currently has a plastic bag recycling component to the residential curbside recycling program.

5. Improperly prepared plastic bags create equipment problems at the Material Recovery Facility. Loose bags wrap around the bearings and shafts of the material separator. The equipment must be stopped and the bags removed before they cause permanent damage. This results in slower production times for the sorting crew, as well as increased processing and repair costs.

6. Compostable plastic carryout bags, as currently manufactured, do not solve the problems of wildlife damage, litter, or resource use addressed by this ordinance. Compostable carryout bags are designed to remain intact until placed in a professional compost facility, so they do not degrade quickly as litter or in a marine environment. Producing compostable bags consumes nearly as much fossil fuel as noncompostable bags. Mixing compostable bags with regular plastic bags prevents recycling or composting either of them. Therefore, there is no exemption in this ordinance for compostable carryout bags.

7. Reusable bags are readily available from numerous sources and vendors. Many grocery and other retail establishments throughout the City of Capitola already offer reusable bags for sale at a price as low as 1.00 dollar.

8. Even though paper bags are recycled at a much higher rate within the City of Capitola than plastic bags, the purpose of this ordinance is to reduce all single-use bags. For this reason, a charge on paper bags is indicated as an incentive to reduce their use and encourage reusable bags.

9. Paper bags that contain a minimum of 40 percent post consumer recycled content have fewer negative impacts than virgin paper bags. Paper shopping bags with 40% post consumer recycled content are easily available, and such bags are in wide use by Capitola merchants.

ORDINANCE NO. \_\_\_\_

10. State law currently prohibits local jurisdictions from placing fees on single-use checkout plastic bags. Therefore, several California Cities have adopted or are pursuing a ban as the most effective remaining means to eliminate the impacts these plastic bags cause. State law does not prohibit jurisdictions from placing fees on paper bags.

**8.07.020 Definitions.**

A. For the purposes of this Chapter, the following definitions apply:

1. "Carryout bags" means bags provided by retailers to customers at the point of sale to hold customers' purchases. "Carryout bags" do not include bags used to contain loose items prior to checkout, such as meat, produce, and bulk goods, and does not include prepackaged products.

2. "Single-use plastic bag" or "single-use plastic carryout bag" means a single-use carryout bag of any size that is made from plastic and provided at the point of sale to customers by a retail establishment. Single-use plastic bags include both compostable and non-compostable carryout bags.

3. "Single-use paper bag" means a checkout bag provided by a retail establishment at the point of sale that is made from paper and is not a reusable bag.

4. "Recyclable" means material that can be sorted, cleansed, and reconstituted using the City's available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating, converting, or otherwise destroying sold waste.

5. "Reusable bag" means any bag with handles that is specifically designed and manufactured for multiple reuse, and meets the following requirements: 1) is either made of cloth or other washable woven fabric, or made of durable material including plastic that is at least 2.25 mils thick; 2) has a minimum lifetime of 125 uses, which for purposes of this subsection, means the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet; 3) has a minimum volume of 15 liters; 4) is washable; and 5) does not contain lead, cadmium, or any other heavy metal in toxic amounts.

6. "Retail establishment" or "retail store" means all sales outlets, stores, shops, restaurants, vehicles, or other places of business located within the City of Capitola, which operate primarily to sell or convey goods, directly to the ultimate consumer.

7. Restaurants, means an establishment whose principal business is the sale of prepared food for consumption either on or off premises, are not covered under this ordinance.

## Item #: 9.B. Attach 2.pdf

ORDINANCE NO. \_\_\_\_

8. "Exempted uses" means those point-of-purchase or delivery sales, which have received a special exemption through the City Manager or the Managers designee, that allows the use of single-use bags.

### **8.07.030 Ban on plastic bags and store charge for single-use paper carryout bags.**

A. No retail establishment shall provide plastic carryout bags to customers at the point of sale, except as permitted in this chapter.

B. No City of Capitola contractors, special events promoters, or their vendors, while performing under contract or permit shall provide plastic carry-out bags to customers at the point of sale.

C. Single-use paper carryout bags provided to customers shall contain a minimum of 40 percent post consumer recycled paper fiber, and be recyclable in the City of Capitola's curbside recycling program.

D. Retail establishments shall charge, during the first year of implementation of this ordinance, a fee that will be established by the City Council at the time of adoption of this ordinance, for each single-use paper carry out bag provided to customers at the point of sale. The City Council shall review the charge amount one year from the date of adoption to judge its effectiveness and at anytime thereafter as the City Council deems necessary. Notice of such fee shall be displayed in Retail establishments at a prominent location.

E. The charge imposed pursuant to this section shall not be applied to customers participating in the California Special Supplemental Food Program for Women, Infants, and Children, the State Department of Social Services Food Stamp program, or other government subsidized purchase programs for low-income residents.

F. The ban on single-use plastic bags and the charge on single-use paper bags shall not apply to restaurants, or to bags that are integral to the packaging of the product, or bags without handles provided to the Customer (i) to transport produce, bulk food, pharmacy products or meat from a department within a Retail Store to the point of sale, or (ii) to segregate food merchandise that could damage or contaminate other food or merchandise when placed together in a Reusable Bag or Single Use Paper Bag.

G. Retail establishments are strongly encouraged to make reusable bags available for sale to customers at a reasonable price.

H. Retail establishments shall indicate on the customer transaction receipt the number of carryout bags provided, and the total amount charged for those bags.

ORDINANCE NO. \_\_\_\_

**8.07.040 Implementation.**

A. Sixty days before this ordinance takes effect, the City of Capitola shall post, mail or deliver a copy of it to retail establishments within the city limits of the City of Capitola.

B. The City of Capitola will distribute to each store a reproducible placard designed to inform shoppers of the City of Capitola policy for carryout bags.

C. The City of Capitola Finance Department shall provide a copy of this ordinance to every new retail establishment that applies for a business license in the City of Capitola.

**8.07.050 Exemptions allowing single use bags.**

A. The City Manager, or the manager's designee, may exempt a retail establishment from the requirement set forth in Section 8.07.030 of this chapter for a one-year period upon the retail establishment showing, in writing, that this chapter would create an undue hardship or practical difficulty not generally applicable to other persons in similar circumstances. The decision to grant or deny an exemption shall be in writing, and the City Manager or the manager's designee's decision shall be final.

B. An exemption application shall include all information necessary for the City Manager or the manager's designee to make a decision, including but not limited to documentation showing factual support for the claimed exemption.

C. The City Manager or managers' designee may approve the exemption application in whole or in part, with or without conditions.

**8.07.060 Enforcement.** Enforcement of this ordinance shall be as follows:

A. The City Manager, or designee, shall have primary responsibility for enforcement of this ordinance and shall have authority to issue citations for violation of this chapter. The City Manager, or designee, is authorized to establish regulations or administrative procedures to ensure compliance with this chapter.

B. A person or entity violating or failing to comply with any of the requirements of this chapter shall be guilty of an infraction.

C. The City of Capitola may seek legal, injunctive, or any other relief to enforce the provisions of this chapter and any regulation or administrative procedure authorized by it.

D. The remedies and penalties provided in this chapter are cumulative and not exclusive of one another.

E. The City Manager or designee may inspect any retail establishment's premises to verify compliance with this ordinance.

## Item #: 9.B. Attach 2.pdf

ORDINANCE NO. \_\_\_\_

**8.07.070 Violations.** Violations of this ordinance shall be enforced as follows:

A. Violation of this chapter is hereby declared to be a public nuisance. Any violation described in the preceding paragraph shall be subject to abatement by the City of Capitola, as well as any other remedies that may be permitted by law for public nuisances, and may be enforced by injunction, upon a showing of violation.

B. Upon a first violation by a retail establishment, the City Manager, or designee, shall mail a written warning to the retail establishment. The warning shall recite the violation, and advise that future violations may result in fines.

C. Upon a second or subsequent violation by a retail establishment, the following penalties will apply:

1. A fine not exceeding one hundred dollars (\$100) for the first violation that occurs 30 days or more after the first warning.

2. A fine not exceeding two hundred dollars (\$200) for the second violation that occurs 60 days or more after the first warning.

3. A fine not exceeding five hundred dollars (\$500) for the third violation that occurs 90 days or more after the first warning.

4. A fine not exceeding five hundred dollars (\$500) for every 30 day period not in compliance, that occurs 90 days or more after the first warning.

D. Special events promoters and their vendors who violate this ordinance in connection with commercial or non-commercial special events shall be assessed fines as follows:

1. A fine not exceeding two hundred dollars (\$200) for an event of 1 to 200 persons.

2. A fine not exceeding four hundred dollars (\$400) for an event of 201 to 400 persons.

3. A fine not exceeding six hundred dollars (\$600) for an event of 401 to 600 persons.

4. A fine not exceeding one thousand dollars (\$1,000) for an event of 601 or more persons.

E. Remedies and fines under this section are cumulative.

ORDINANCE NO. \_\_\_\_

**8.07.080 Severability.**

If any word, phrase, sentence, part, section, subsection, or other portion of this chapter, or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other portion, or the proscribed application thereof, shall be severable, and the remaining provisions of this chapter, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect. The City of Capitola hereby declares that it would have passed this title, and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases had been declared invalid or unconstitutional.

**8.07.090 Effective date.**

This ordinance shall become effective three (3) months after the date of final passage by the City of Capitola City Council.

**8.07.100 No conflict with Federal or State law.**

Nothing in this ordinance shall be interpreted or applied so as to create any requirement, power, or duty in conflict with any Federal or State law.

**8.07.110 Preemption.**

The provisions of this chapter shall be null and void if State or Federal legislation, or administrative regulation, takes effect with the same or substantially similar provisions as contained in this chapter. The City Council shall determine whether or not identical or substantially similar statewide legislation has been enacted or regulations issued.”

Section 2. This ordinance shall be in force and take effect thirty (30) days after final adoption.

This ordinance was introduced on the 13<sup>th</sup> day of December, 2012, and was passed and adopted by the City Council of the City of Capitola on the \_\_\_\_ day of \_\_\_\_, 2012, by the following vote:

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:

APPROVED:

\_\_\_\_\_  
Stephanie Harlan, Mayor

ATTEST:

\_\_\_\_\_, CMC  
Susan Sneddon, City Clerk

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**Sneddon, Su**

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**From:** dina el dessouky [aremiti\_nehenehe@yahoo.com]  
**Sent:** Thursday, July 26, 2012 10:26 AM  
**To:** City Council  
**Subject:** Single Use Plastic Bag Ban

Dear Council,

I am a Central Capitola Village Resident, and also a member of the Surfrider Foundation, Santa Cruz Chapter. I'd like to state my support for a single-use plastic bag ban in Capitola. I am impressed with the city of Santa Cruz for enacting such a ban already, and have noticed that it is making a big difference in the public's attitudes and actions towards reducing single-use waste in general, which will undoubtedly have a big and very positive global environmental effect. I believe it is our city's responsibility to enact and enforce a single-use plastic bag ban, as Capitola is reliant on the marine environment for it's annual revenue (tourist dollars)--people wouldn't come to Capitola if it weren't for our beautiful oceans and beaches. The least we can do is try to keep these coastal resources cleaner and free of avoidable pollution, and it is a fact that requiring merchandisers not to distribute single-use plastic bags will help reduce pollution in our own Monterey Bay sanctuary.

In addition, I'd like to state that when I notice that a restaurant in Capitola has the habit of distributing plastic products--including bags, take-out containers, or utensils--I hesitate to spend my money there. I would rather spend my money at an establishment which encourages the reduction of waste and which encourages reusable items.

Thank you for your cooperation!

Dina El Dessouky  
206 Stockton Ave.  
Capitola, CA 95010  
(831) 247-1467

**Sneddon, Su**

---

**From:** SC SEA [scseasurfer@gmail.com]  
**Sent:** Thursday, July 26, 2012 6:36 PM  
**To:** City Council  
**Subject:** Single-use Plastic Bag Ban

Respectful greeting to all City Council Members from Surfers' Environmental Alliance,

I'm contacting you as a result of your July 12 meeting. At that time you delayed voting on drafting a single-use plastic bag ban for the city, and opted instead to first seek a Negative Finding on the need for a full Environmental Impact Report. While we understand your desire for a Negative Declaration, we feel this issue is dragging on far too long. Consequently, we believe that a Negative Finding and a "Draft Single-Use Bag Ban" could both be worked on at the same time, thus saving a lot of time as the process moves on.

Please, be aware that Surfers' Environmental Alliance, the Santa Cruz Chapter of the Surfrider Foundation, and Save The Waves Coalition all strongly urge you to move ahead with drafting a single-use bag reduction ordinance to present to the entire council. We ask that you act without further delay.

For the sea and surf,

Jim Littlefield  
West Coast Environmental Projects Director  
Surfers' Environmental Alliance (SEA)

Save The Waves Coalition

Santa Cruz Chapter, Surfrider Foundation

**Sneddon, Su**

---

**From:** Lauren Dockendorf [lauren@saveourshores.org]  
**Sent:** Monday, August 13, 2012 11:10 AM  
**To:** City Council  
**Subject:** Support for the Plastic Bag Ban in Capitola  
**Attachments:** CCSA Capitola PBB Support Letter.pdf

Dear Members of the Capitola City Council,

Please see the attached support letter for the Plastic Bag Ban in the City of Capitola. Feel free to contact me with any questions.

Thank you,

Lauren G. Dockendorf

Operations and Advocacy Coordinator  
Save Our Shores  
345 Lake Avenue, Suite A  
Santa Cruz, CA 95062  
831.462.5660 ext.1#  
Fax: 831.462.6070

\*Text SOS to the # 20222 to Donate \$5 to Save Our Shores!\*

Visit our website: <http://saveourshores.org>  
Follow SOS on Twitter [@SaveOurShores](https://twitter.com/SaveOurShores)  
Join SOS on Facebook <https://www.facebook.com/SaveOurShores.org>

Ensure Your Future -- Buy Recycled

**Sneddon, Su**

---

**From:** christa atkins [scorpiogirl17@comcast.net]  
**Sent:** Tuesday, August 28, 2012 3:19 PM  
**To:** City Council  
**Subject:** Plastic Bag Ban

Hello,

A lot of you may not see the Environmental impact that plastic bags have on the environment because you're not in the ocean all the time, but I do, and so do many other surfers. I'm with Surfrider, Santa Cruz, and I believe a plastic bag ban is necessary to help preserve the health of our ocean and its marine creatures. The coastal public has supported such bans in other jurisdictions, and we will support a ban in Capitola, too.

November 26, 2012

Janice G. Archuleta  
Pacific Grove, California

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

On behalf of Central Coast Sanctuary Alliance, I respectfully request that the Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable. This ordinance should include all grocery stores, pharmacies and retail stores within the City of Capitola.

From March 2007 to November 2012, Save Our Shores cleanup volunteers removed over 35,000 plastic bags from local beaches and waterways, though countless other plastic bags have made their way into the Monterey Bay.

Plastic bags pose a serious environmental risk. Plastic is not biodegradable. In the marine environment, plastic breaks down into smaller and smaller pieces that absorb toxic chemicals, are ingested by wildlife, and enter the food chain that we depend on. Approximately 100 billion petroleum-based, plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year. A ban on plastic bags would help preserve the integrity of our local ecosystems, reduce the burden on landfills, and cut back litter within the county and city premises.

There are many alternatives to single-use plastic bags, such as reusable cloth bags, bags made from recycled products, bags made from starches, biodegradable polymer and other renewable resources.

For these and other reasons, our Sanctuary Alliance supports a ban on single-use plastic bags coupled with a fee on all other single use bags within the Capitola.

We thank all local representatives for their time and energy spent on this issue and we look forward to this beneficial change happening quickly and effectively in Capitola.

Sincerely,

Janice G. Archuleta  
Central Coast Sanctuary Alliance

November 28, 2012

Healing Seas Foundation  
33 Harvest Street  
Salinas, CA 93901

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

On behalf of Healing Seas Foundation, I respectfully request that the Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable. This ordinance should include all grocery stores, pharmacies and retail stores within the City of Capitola.

From March 2007 to November 2012, Save Our Shores cleanup volunteers removed over 35,000 plastic bags from local beaches and waterways, though countless other plastic bags have made their way into the Monterey Bay.

Plastic bags pose a serious environmental risk. Plastic is not biodegradable. In the marine environment, plastic breaks down into smaller and smaller pieces that absorb toxic chemicals, are ingested by wildlife, and enter the food chain that we depend on. Approximately 100 billion petroleum-based, plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year. A ban on plastic bags would help preserve the integrity of our local ecosystems, reduce the burden on landfills, and cut back litter within the county and city premises.

There are many alternatives to single-use plastic bags, such as reusable cloth bags, bags made from recycled products, bags made from starches, biodegradable polymer and other renewable resources.

For these and other reasons, Healing Seas Foundation supports a ban on single-use plastic bags coupled with a fee on all other single use bags within the Capitola. We thank all local representatives for their time and energy spent on this issue and we look forward to this beneficial change happening quickly and effectively in Capitola.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bryan Flores', with a long horizontal line extending to the right.

Bryan Flores  
Co-Founder/Director, Healing Seas Foundation

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NOV 29 2012

CITY OF CAPITOLA



November 26, 2012

Capitola City Council Members  
420 Capitola Ave, Capitola, CA 95010

RE: Letter of Support for Single-Use Bag Reduction Ordinance

Dear Mayor and Members of the Capitola City Council:

On behalf of B-SAGE, I respectfully request that Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable bags. This ordinance should include all grocery stores, pharmacies and retail stores within the City of Capitola.

From March 2007 to November 2012, Save Our Shores cleanup volunteers removed over 35,000 plastic bags from local beaches and waterways, though countless other plastic bags have made their way into the Monterey Bay.

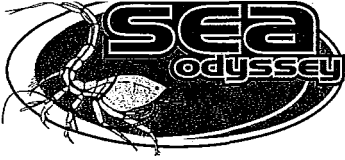
Plastic bags pose a serious environmental risk. Plastic is not biodegradable. In the marine environment, plastic breaks down into smaller and smaller pieces that absorb toxic chemicals, are ingested by wildlife, and enter the food chain that we depend on. Approximately 100 billion petroleum-based, plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year. A ban on plastic bags would help preserve the integrity of our local ecosystems, reduce the burden on landfills, and cut back litter within the county and city premises.

There are many alternatives to single-use plastic bags, such as reusable cloth bags, bags made from recycled products, bags made from starches, biodegradable polymer and other renewable resources. For these and other reasons, B-SAGE supports a ban on single-use plastic bags coupled with a fee on all other single use bags within Capitola. We thank all local representatives for their time and energy spent on this issue and we look forward to this beneficial change happening quickly and effectively in Capitola.

Sincerely,

Lynda Sayre  
Chair, B-SAGE

Item #: 9.B. Attach 3.pdf



O'Neill Sea Odyssey provides a hands-on educational experience to encourage the protection and preservation of our living sea and communities

2222 East Cliff Drive #222

Santa Cruz, CA 95062

831.475.1561

831.462.9188 FAX

oneillseaodyssey.org

*Copies to Council ✓*

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NOV 29 2012

CITY OF CAPITOLA

26 November 2012

Mayor Michael Termini and Members  
Capitola City Council  
420 Capitola Avenue  
Capitola, CA 95010

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

On behalf of O'Neill Sea Odyssey, I respectfully request that the Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable. This ordinance should include all grocery stores, pharmacies and retail stores within the City of Capitola.

From March 2007 to November 2012, Save Our Shores cleanup volunteers removed over 35,000 plastic bags from local beaches and waterways, though countless other plastic bags have made their way into the Monterey Bay.

Plastic bags pose a serious environmental risk. Plastic is not biodegradable. In the marine environment, plastic breaks down into smaller and smaller pieces that absorb toxic chemicals, are ingested by wildlife, and enter the food chain that we depend on. Approximately 100 billion petroleum-based, plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year. A ban on plastic bags would help preserve the integrity of our local ecosystems, reduce the burden on landfills, and cut back litter within the county and city premises.

There are many alternatives to single-use plastic bags, such as reusable cloth bags, bags made from recycled products, bags made from starches, biodegradable polymer and other renewable resources.

For these and other reasons, O'Neill Sea Odyssey supports a ban on single-use plastic bags coupled with a fee on all other single use bags within the Capitola. We thank you for your time and energy spent on this issue and we look forward to this beneficial change happening quickly and effectively in Capitola.

Sincerely,

  
Dan Haifley  
Executive Director



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NOV 27 2012

CITY OF CAPITOLA



*THE LEADING EDGE OF COASTAL ACTIVISM*

**Regarding Single-use carry-out bag ordinance: SUPPORT**

November 26, 2012

Capitola City Council  
City of Capitola  
420 Capitola Avenue  
Capitola, California 95010

To all Honorable City Council members,

Surfers' Environmental Alliance (SEA) has learned that the City Council will consider a city-wide ordinance aimed at reducing or eliminating the widespread use of single-use carry-out plastic bags and single-use carry-out paper bags in the city's retail establishments on December 3, 2012. As the people in and on the water, we support all actions which tend to reduce marine and environmental litter. Please, accept the following comments.

**As a preliminary matter, Surfers' Environmental Alliance (SEA) is committed to the preservation and protection of the environmental and cultural elements that are inherent to the sport of surfing. Our goals are achieved through grassroots activism, community involvement, education and humanitarian efforts. We engage in projects that strive to conserve the quality of our marine environment, preserve or enhance surf breaks, protect beach access rights, and safeguard the coastal surf zone from unnecessary development. [www.seasurfer.org](http://www.seasurfer.org)**

We urge all members of the Capitola City Council to accept the draft ordinance presented by the city's staff. SEA wishes to thank everyone who has worked to produce this ordinance. We ask that the entire council vote to enact and enforce this important local law.

Single-use plastic bags represent an incredible long-term threat to the natural environment, because as a petroleum-based material, plastics have amazing longevity in the natural environment. Plastics, including single-use plastic bags, do not ever biodegrade, and such so-called "disposable" plastic bags are a very disturbing and common item of trash and litter in our waterways, oceans, roadsides, neighborhoods, in all natural areas.

Plastic bags are also a notorious threat to our wildlife, both on land and sea. For example: each year over one million seabirds and one-hundred thousand marine animals die from ingestion of or entanglement in plastics, (including plastic bags which look like jellies to hungry sea creatures). Around 100 billion petroleum-based plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year. Sadly, less than 5% of these bags are recycled each year and cities, counties, and non-profit organizations must pay millions of dollars each year to clean up plastic litter.

We also realize that "carry-out" paper bags are also a major source of litter in our communities, and as products commonly intended for a one-time-use, their manufacture, transport, and disposal represents a huge waste of shrinking resources. Therefore, we support any effort that tends to limit or reduce the widespread dispersal of such products.

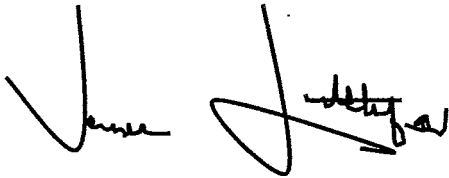
SEA welcomes your desire to take legal action on this issue, and we believe this step is in line with similar actions taken by other environmentally-aware jurisdictions. Such a new ban by the City of Capitola would provide a powerful example for other nearby jurisdictions to follow.

On this issue, we believe the other nearby jurisdictions will see Pacific Grove as a clear leader and seek to draft similar ordinances of their own. Clearly, all such litter-reduction efforts are most effective when viewed as a regional issue, and we are pleased to see all nearby jurisdictions working together on this vital matter.

SEA urges everyone to learn the facts about plastics in the natural environment and the wasteful nature of single-use products. We are confident that anyone who understands this issue will take the correct action to protect our environment and conserve our shrinking resources.

We look forward to the forthcoming ordinance, and, based on the many comments we have heard from a wide segment of the coastal public, we think such action on your part will enjoy wide support.

For the sea and the surf,

A handwritten signature in black ink, appearing to read "James Littlefield". The signature is stylized and cursive.

James Littlefield, West Coast Environmental Projects Director  
Surfers' Environmental Alliance (SEA)  
[www.seasurfer.org](http://www.seasurfer.org)

# OCEAN CONSERVATION RESEARCH



*Science and technology serving the sea.*

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NOV 27 2012

CITY OF CAPITOLA

November 26, 2012

Capitola City Council Members  
420 Capitola Ave, Capitola, CA 95010

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

On behalf of Ocean Conservation Research I respectfully request that the Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable. This ordinance should include all grocery stores, pharmacies, and retail stores within the City of Capitola.

I will not restate the reasons that you have likely read or heard already; suffice it to say that single use bags are a bad idea and represent the cultural and economic hubris which is eroding the quality of life for all beings on the planet.

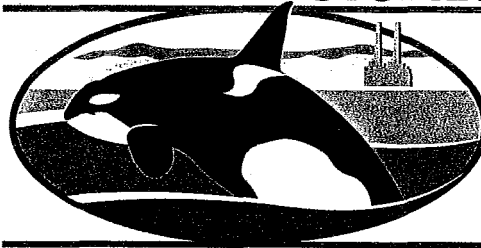
Any "economic argument" refuting this fundamental premise is specious and short sighted. To paraphrase a cynical comment in circulation: "Yes, the planet got destroyed, but for a beautiful moment in time we created a lot of value for shareholders..."

We owe ourselves, the following generations, and all life on the planet a complete re-vamp in our ideas about "disposability" and the practice of externalizing costs of our actions.

Prohibiting single use plastic in your community is a good place to start.

Sincerely,

Michael Stocker  
Director



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NOV 30 2012

CITY OF CAPITOLA

***Teaching and Inspiring the Public to Protect Whales and Dolphins***

11/27/12

Capitola City Council Members  
420 Capitola Ave.  
Capitola, CA 95010

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

On behalf of Marine Life Studies, we respectfully request that the Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable. This ordinance should include all grocery stores, pharmacies and retail stores within the City of Capitola.

We conducted research on whales and dolphins in the Monterey Bay National Marine Sanctuary as well as document and collect marine debris. Plastic bags are on the top of the list of marine debris collected. We also collect trash with Marine Life Studies Take it to the Streets™ conservation program before it reaches our waterways and ocean.

A ban on plastic bags would help preserve the integrity of our local ecosystems, reduce the burden on landfills, and cut back litter within the county and city premises. Plastic bags pose a serious environmental risk to all marine wildlife. Plastic is not biodegradable. In the marine environment, plastic breaks down into smaller and smaller pieces that absorb toxic chemicals, are ingested by wildlife, and enter the food chain that we depend on. Approximately 100 billion petroleum-based, plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year.

There are so many alternatives to single-use plastic bags, such as reusable cloth bags, bags made from recycled products, bags made from starches, biodegradable polymer and other renewable resources.

Marine Life Studies urges you to support a ban on single-use plastic bags coupled with a fee on all other single use bags within the City of Capitola. You are helping to protect our environment with this ban we look to see this will happen quickly and effectively in Capitola. Your diligence on this issue is greatly appreciated and we thank you.

Aloha,

  
Peggy Stap, Executive Director

RECEIVED

NOV 30 2012

CITY OF CAPITOLA



November 29, 2012

City of Capitola  
420 Capitola Ave  
Capitola, CA 95010

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

On behalf of Communities for Sustainable Monterey County (CSMC) I respectfully request that the Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable. This ordinance should include all grocery stores, pharmacies and retail stores within the City of Capitola.

From March 2007 to November 2012, Save Our Shores cleanup volunteers removed over 35,000 plastic bags from local beaches and waterways, though countless other plastic bags have made their way into the Monterey Bay.

Plastic bags pose a serious environmental risk. Plastic is not biodegradable. In the marine environment, plastic breaks down into smaller and smaller pieces that absorb toxic chemicals, are ingested by wildlife, and enter the food chain that we depend on. Approximately 100 billion petroleum-based, plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year. A ban on plastic bags would help preserve the integrity of our local ecosystems, reduce the burden on landfills, and cut back litter within the county and city premises.

There are many alternatives to single-use plastic bags, such as reusable cloth bags, bags made from recycled products, bags made from starches, biodegradable polymer and other renewable resources.

For these and other reasons, CSMC supports a ban on single-use plastic bags coupled with a fee on all other single use bags within the Capitola. We thank all local representatives for their time and energy spent on this issue and we look forward to this beneficial change happening quickly and effectively in Capitola.

Sincerely,

Denyse Frischmuth  
Communities for Sustainable Monterey County (CSMC)  
President, Board of Directors.

RECEIVED

DEC 3 2012

November 30, 2012

Capitola City Council Members  
420 Capitola Ave, Capitola, CA 95010

CITY OF CAPITOLA

Letter of Support for Single-Use Bag Reduction Ordinance

Dear Mayor and Members of the Capitola City Council,

I am writing on behalf of Sustainable Pacific Grove to urge approval of a plastic-bag ordinance by Capitola with an accompanying fee on paper bags. If any communities should care about this issue, it is those on Monterey Bay, with its miles of beautiful coastline.

Already over 50 communities in California — locally: Monterey, Carmel, Watsonville, Santa Cruz (city and county) — have taken this positive step. It is too late for Capitola to be a pioneer, but on the plus side, action is easy now. Legal precedents have been tested and set. Environmental reports have proven adequate. Ordinances have been drafted and passed.

It is not too late for Capitola to be a leader in facilitating a uniform statewide law. For retailers, bags add to costs and handling. Retailers must pass this cost on to customers; these “free” bags do not come free, but add to the price of everyone’s groceries. The California Grocers Association supports a statewide ban on single-use plastic bags with a small fee on paper bags. Legislators in Sacramento tell us they are waiting only for enough support at the city/county level.

Your decision is thus doubly important, and Capitola need not wait to enjoy the benefits.

The benefits of the proposed ordinance are both economic and environmental. There is no trade-off, no conflict demanding compromise, no balance that needs to be struck. The 100 billion petroleum-based, plastic checkout bags that Americans use each year require an estimated 12 million barrels of oil, a huge waste of resources. And they cost a lot, both to cities and to individuals. Fewer than 5% are recycled, and many — even if properly disposed of — escape from landfills.

Carried by wind, plastic bags litter streets and beaches, and they clog storm-drains. They entangle and kill marine wildlife. They never go away, but break down into small pieces that are eaten by fishes and other marine animals, and damage the food chain. Locally, Save Our Shores volunteers remove several thousands of plastic bags from beaches and waterways every year, though countless other plastic bags make their way into the Monterey Bay National Marine Sanctuary.

For a town such as Capitola, whose economic health depends on its charm attracting visitors, the cost is hard to measure but easy to picture: how charming is plastic litter?

Values we honor and share are all trampled by the way we currently use plastic shopping-bags: Environmental stewardship. Personal responsibility. Fairness. Thrift. Conservation of resources. The free market.

I heard a man argue — seriously — that bag bans unfairly “punish” those who act responsibly by re-using them (once) for trash or collecting dog poop. How fair is it that I and other neighbors pay for his bags in higher grocery prices and in taxes for cleanup and disposal? Current annual costs to Californian public agencies for plastic litter prevention, cleanup, and disposal are more than \$375 million.

DEC 3 2012

CITY OF CAPITOLA

November 28, 2012

Capitola City Council Members  
420 Capitola Ave, Capitola, CA 95010

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

On behalf of Camp SEA Lab, I respectfully request that the Capitola adopt an ordinance that would place a ban on single-use plastic bags coupled with a fee on all other single-use bags such as paper and compostable. This ordinance should include all grocery stores, pharmacies and retail stores within the City of Capitola.

From March 2007 to November 2012, Save Our Shores cleanup volunteers removed over 35,000 plastic bags from local beaches and waterways, though countless other plastic bags have made their way into the Monterey Bay.

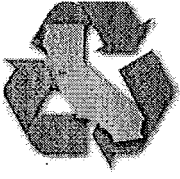
Plastic bags pose a serious environmental risk. Plastic is not biodegradable. In the marine environment, plastic breaks down into smaller and smaller pieces that absorb toxic chemicals, are ingested by wildlife, and enter the food chain that we depend on. Approximately 100 billion petroleum-based, plastic checkout bags are used each year in the United States, requiring an estimated 12 million barrels of oil each year. A ban on plastic bags would help preserve the integrity of our local ecosystems, reduce the burden on landfills, and cut back litter within the county and city premises.

There are many alternatives to single-use plastic bags, such as reusable cloth bags, bags made from recycled products, bags made from starches, biodegradable polymer and other renewable resources.

For these and other reasons, Camp SEA Lab supports a ban on single-use plastic bags coupled with a fee on all other single use bags within the Capitola. We thank all local representatives for their time and energy spent on this issue and we look forward to this beneficial change happening quickly and effectively in Capitola.

Sincerely,

Hannah Campbell  
Education Coordinator, Camp SEA Lab  
100 Campus Center, Bldg 42  
Seaside, CA 93955



# Californians Against Waste

Conserving Resources. Preventing Pollution. Protecting the Environment.

December 3, 2012

Mayor Michael Termini  
City of Capitola  
420 Capitola Avenue  
Capitola, CA

**Re: Single Use Bag Ordinance – Support**

Dear Mayor Termini,

Californians Against Waste (CAW) respectfully urges you to support a Single Use Bag Ordinance in Capitola.

Single-use plastic bags are a costly, environmentally damaging, and easily preventable source of litter and pollution. Light and aerodynamic, plastic bags are uniquely litter-prone even when properly disposed of, and pose a serious threat to our environment and wildlife. Plastic pollution kills thousands of birds, turtles and other species and threatens California's multi billion dollar ocean-based economy. When they are no longer visible to the naked eye, plastic bags are still not gone but have degraded into particles that adsorb toxins and contaminate our food chain and water.

In addition to the environmental benefits of this ordinance, there are considerable direct economic benefits for the City, including lowered litter and clean up costs, reduced maintenance and sorting costs for the curbside recycling program, decreased clogging and cleanup of stormwater systems, and of course diminished grocery costs. The ordinance is expected to reduce plastic bag distribution by an estimated 18.8 million plastic bags annually. These "free" bags are currently costing grocers \$320,000 each year, a cost that is then passed on to their customers.

Single-use bag ordinances, as evidenced by recent numbers from Los Angeles County, can also reduce paper bag distribution. LA County's plastic bag ban, paired with a ten cent charge on paper bags, resulted in a 95% overall reduction of all single-use bags in covered stores, including a 25% reduction of paper bags.

CAW has worked with retailers, bag manufacturers, and local governments to try to manage single-use plastic bags through recycling. We sponsored AB 2449 (Levine) which provides in-store recycling for plastic bags. Despite establishing the state's largest collection infrastructure for any single material, efforts to manage plastic bags through recycling have failed. In 2009, only 3% were returned for recycling. Efforts earlier this year to enact a statewide ban of plastic bags with AB 298 (Brownley) failed to pass. Capitola and other municipalities, who are primarily responsible for the clean-up and cost of plastic litter, cannot wait for state action.

Plastic marine pollution is a global problem with local solutions. The phase out of single-use bags is a proven solution for combating waste and the costs of plastic bag litter. CAW thanks the City for its environmental leadership and urges you to continue this tradition of leadership by supporting a Single Use Bag Ordinance.

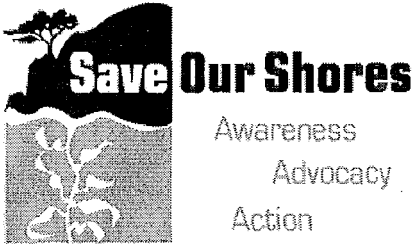
Sincerely,

A handwritten signature in black ink, appearing to read "Mark Murray".

Mark Murray  
Executive Director

cc: Vice Mayor Stephanie Harlan; Council Member Kirby Nicol; Council Member Dennis Norton; Council Member Sam Storey





December 6, 2012

Capitola City Council Members  
420 Capitola Avenue  
Capitola, CA 95010

**RE: Letter of Support for Single-Use Bag Reduction Ordinance**

Dear Mayor and Members of the Capitola City Council,

Save Our Shores (SOS) is writing this letter to urge you to move forward with a single-use bag ordinance in the city of Capitola. This ordinance should include all grocery stores, pharmacies and retail stores within the city of Capitola. SOS has been picking up plastic bag litter for over 30 years now. We knew this was one of the top trash items in our cleanups but it wasn't until 2007 that we actually started COUNTING how many bags were contaminating our environment. We are confident when we tell you we have collected over 35,000 in these past five years.

The county of Santa Cruz's ban went in effect on March 20, 2012. SOS collected data one month before the ban and found that only 10% of shoppers were using reusable bags at the store. One month after the ban, which included a 10 cent fee for paper bags, 85% of shoppers were either using a reusable bag or no bag at all. Yesterday I went out again to count shoppers for an hour. 78% of shoppers were choosing reusable or no bag at all instead of single use paper. And how nice it was to stand in front of a Safeway market and not see hundreds of plastic bags flying out of there in an hour.

SOS has also compared the plastic bag litter data from 2011 to 2012. We have seen a remarkable drop of over 50% in just 9 months. The average number of plastic bags per cleanup in 2011 was 19 and in 2012 it has dropped to 8.

I attended San Jose's committee meeting this week where they reviewed the studies of the impacts of their bag ban that went into effect in January 2012. They are showing an 89% reduction in plastic bag litter in storm drains, a 59% reduction in that litter in their creeks and rivers and a 60% reduction in bag litter in streets and neighborhoods.

The proof that bans on plastic bags and a 10 cent fee on paper bags work is all around us. The city of Santa Cruz and the city of Watsonville have already passed their bans. Capitola is usually the front runner with these types of issues such as they were for bans on Styrofoam, and I don't want to see the city left behind. We need continuity throughout the county to make it easy for our shoppers.

345 Lake Ave, Ste. A Santa Cruz, CA 95062  
[www.SaveOurShores.org](http://www.SaveOurShores.org)

The city of Monterey and Carmel have passed bans. The county of San Mateo has passed a regional ban and  
**Item #: 9.B. Attach 3.pdf** y have already adopted it. All 24 cities are expected to adopt the ban by April 2013.

The city of Capitola stands to have the biggest impact on plastic bag litter because our mall is located there. I was appalled to see Target plastic shopping bags littering Twin Lakes beach the day after the store opened this summer. I have tried at least six times to contact the store to get a meeting to discuss how their store is impacting our environment and to discuss ideas for how to make it a positive impact. I have still not gotten a response. Many chain stores, from what I understand from talking to representatives from Macy's and others at the mall, will not get rid of plastic bags until it becomes local law, even if the local managers think it is a good idea. This tells me that we need to take government action to make it unlawful to give out plastic bags. It is time to rid our coastal community of this harmful material and I look forward to the city council voting to enact a ban as soon as possible.

Thank you very much for your service and all you do to make Capitola a lovely place to live/work/visit.

Sincerely,



Laura Jean Kasa  
Executive Director



## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: CITY MANAGERS DEPARTMENT

SUBJECT: ALLOCATION OF MEASURE O FUNDING

**RECOMMENDED ACTION:** Direct staff to:

1. Prepare revisions to the City's Financial Management Policies to increase the Contingency Reserve funding level from 10% to 15%, and Emergency Reserve funding target from 5% to 10%;
2. Incorporate the budget changes for this fiscal year outlined in this staff report into the 2013 mid-year budget process;
3. Approve amendments to the 5-Year Capital Improvement Program to prioritize near-term street maintenance projects (Attachment).

**BACKGROUND:** During the winter of 2011, the Noble Gulch pipe failed, resulting in a declared state of emergency and more than \$1.6 million in City expenditures. That pipe failure, coupled with the prolonged economic downturn, left the City unprepared to face the next natural disaster and with lower levels of service than the community expected.

On November 6, voters approved Measure O, instituting a 0.25% local sales tax and raising approximately \$1 million a year for the City. The identified priorities for this funding, based on the ballot language, were disaster recovery and maintenance of general services including public safety and street improvements. This staff report outlines options to reestablish sustainable reserves over the next five years, restore street maintenance programs, and increase service levels with Measure O resources.

**DISCUSSION: Reestablish Reserves**

A key component of the disaster recovery is the reestablishment of the City's reserve funds. Those reserve funds were established in 2000 with the adoption of the City's Financial Management Policies. Currently the policy calls for Emergency and Contingency Reserves to be funded at 5% and 10% of General Fund Expenditures respectively. In the recently completed Benchmark Report, Capitola ranked last among the seven benchmark cities with the lowest levels of reserves.

The City's reserve accounts serve a number of purposes. The Contingency Reserve is intended to provide financial resources to protect against temporary revenue shortfalls or unanticipated operating costs, and to meet short-term cash flow requirements. Due to the volatile nature of the City's primary revenue sources, and the increased delay in the receipts of several major revenues each year, staff recommends increasing the Contingency Reserves from 10% to 15%.

As the 2001 pipe failure demonstrated, our community is not immune to natural disasters. In fact, Capitola may be more susceptible to natural disasters than many communities because we are located in an active geologic region, adjacent to the ocean, and have a major creek and highway within the City limits. Staff recommends increasing the policy funding level for the Emergency Reserves from 5% to 10%.

Fund	Current Funding	Current Policy Level	Proposed Policy Funding Level	Deficit to Proposed Policy Funding Level
Contingency	\$0.72 mil	10% - \$1.2 mil	15% - \$1.8 mil	\$1.1 mil
Emergency	\$0.09 mil	5% - \$0.6 mil	10% - \$1.2 mil	\$1.1 mil
<b>Total</b>	<b>\$0.81 mil</b>	<b>15% - \$1.8 mil</b>	<b>25% - \$3.0 mil</b>	<b>\$2.2 mil</b>

## Item #: 9.C. Staff Report.pdf

### AGENDA STAFF REPORT DECEMBER 13, 2012 — ALLOCATION OF MEASURE O FUNDING

#### Repave and Repair City Streets

With the severe economic downturn over the last four years, coupled with money the State has taken away from the City, funding to maintain our streets has been far less than necessary to maintain their condition. In fact, according to our most recent inventory of pavement condition, the City's overall rating has decreased 7% in the last two years.

According to our most recent Pavement Management Index Study, the amount necessary to maintain the existing condition our roads is \$550,000. In addition, there are a number of more significant road projects which the City Council may wish to consider in coming years.

Public Works has prepared proposed amendments to our adopted 5-Year Capital Improvement Program (CIP) to identify near-term projects in the event increased funding for streets is made available. The proposed near-term projects, which would be scheduled for the next 30-months, are slurry seal projects, Clares Traffic Calming, and Park Avenue sidewalks and paving (see Attachment).

#### Restore Public Works Crew

The staffing levels on our Public Works crew have been severely reduced over the last several years. Today, we have 25% fewer crew members, which significantly impacts our ability to help take care of our City. To increase the staffing level of our on-the-ground crew the City could hire one additional crew person this spring to help with the increased service demands during the summer. In the longer term, a second crew person could be hired to restore maintenance levels to meet long-term needs.

#### Community Policing Projects

Over the last several years the City has seen State-funding for our police cut while demands for police services, particularly in our neighborhoods and the Village, increase. To better respond to incidents during our peak summer tourist season, and to engage in more community-oriented policing projects, staff is recommending the Department hire an additional Community Service Operator who would be assigned primarily to assist with Village, beach and neighborhood issues. In addition, Measure O funding would allow for an increased police presence in the Village during evening periods of high demand.

**FISCAL IMPACT:** While the budget amounts of available Measure O funding will vary from year-to-year, the following table outlines a potential long-term strategy the City could consider to restore reserve funding and meet our community service needs. Measure D, a temporary 0.25% sales tax measure, is due to expire in 2017. Between today and 2017, the City will receive revenue from both Measure D and Measure O, giving us the opportunity to restore reserves and improve road conditions.

The purpose of this chart is to outline a general framework to help guide current and future budget decisions; funding in future years will be at the discretion of the City Council and cannot be predetermined. Measure O revenue will increase as taxable sales in the City increases. However, costs will also tend to increase due to inflation. As a result, all figures in the table below are "inflation adjusted" based on today's costs/revenue.

FY Ending	Est. Measure O Funding	PW Crew	PD Staff	CIP/Street Maintenance	Reserves	
					\$200,000 <sup>1</sup>	
2013	\$ 270,000	\$ 10,000	\$ 6,000	\$104,000	\$150,000	Current FY
2014	\$1,100,000	\$ 50,000	\$20,000	\$530,000	\$500,000	
2015	\$1,100,000	\$100,000	\$35,000	\$515,000	\$450,000	
2016	\$1,100,000	\$100,000	\$35,000	\$515,000	\$450,000	
2017	\$1,100,000	\$100,000	\$35,000	\$515,000	\$450,000	
<b>Totals</b>	<b>\$4,670,000</b>	<b>\$360,000</b>	<b>\$131,000</b>	<b>\$2,179,000</b>	<b>\$2,200,000</b>	

#### **ATTACHMENTS:** Proposed Amendment to 5-Year CIP

Report Prepared By: Jamie Goldstein  
City Manager

Reviewed and Forwarded  
by City Manager: 

<sup>1</sup> 2013 Proposed Mid-Year Transfer from Fund Balance

City of Capitola  
 2012/13 Capital Improvement Program  
 Project Amendment Summary

December 13, 2012

	Year	Measure O	Other Sources	Project Budget	Estimated Construction Date
<b>FY 2012/13</b>					
<b>Slurry Seal</b>		\$ 100,000		\$ 100,000	May, 2013
Cliffwood Heights					
Riverview Terrace					
Francisco Circle					
<b>Bay Avenue Paving &amp; Streetscape Bank</b>		\$ 4,000			see 2013/14
<b>Total Measure O Funds</b>	2013	<b>\$ 104,000</b>			
<b>FY 2013/14</b>					
<b>Clares Street Traffic Calming</b>		\$ 300,000	\$ 100,000	\$ 400,000	Winter 2013
<b>Slurry Seal</b>		\$ 50,000		\$ 50,000	Fall 2013
49th Avenue					
Clares Loop					
<b>Bay Avenue Paving &amp; Streetscape</b>		\$ 30,000	\$ 4,000	\$ 75,000	TBD on additonal funding availability
<b>Park Avenue Sidewalk</b>		\$ 150,000	\$ 300,000	\$ 450,000	Summer 2014
<b>Total Measure O Funds</b>	2014	<b>\$ 530,000</b>			
<b>FY 2014/15</b>					
<b>Park Avenue Paving</b>		\$ 400,000	\$ 37,000	\$ 437,000	Spring 2015
<b>Slurry Seal</b>		\$ 115,000		\$ 115,000	Summer 2015
Jewel Box					
43rd, 44th, 45th Avenues					
Hill Street Neighborhood					
<b>Total Measure O Funds</b>	2015	<b>\$ 515,000</b>			

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## CITY COUNCIL AGENDA REPORT

**MEETING OF DECEMBER 13, 2012**

FROM: CITY MANAGERS OFFICE

SUBJECT: APPROVAL OF FRANCHISE AGREEMENT EXTENSION FOR AN ADDITIONAL FOUR YEARS WITH GREENWASTE RECOVERY FOR REFUSE, RECYCLING & YARD WASTE SERVICES AND RATES FOR 2013

**RECOMMENDED ACTION:** (1) Approve a franchise agreement extension for an additional four years with Greenwaste Recovery Inc. for refuse, recycling and yard waste services, expiring December 31, 2022; and (2) Adopt the proposed Resolution approving a rate schedule for residential and commercial garbage collection and recycling in Capitola effective January 1, 2013, superseding Resolution No. 3899, as authorized in the franchise agreement dated April 24, 2008.

**BACKGROUND:** The City of Capitola has an exclusive franchise agreement for the collection of refuse, recycling and yard waste services (Agreement) with Greenwaste Recovery Inc. (GWR), which has a term of September 1, 2008 to December 31, 2018. The City has received a request by GWR to extend the term of the Agreement to December 31, 2022.

**DISCUSSION:** GWR has been providing services to the City since 2007 when it first took over the franchise from Waste Management. The terms of the Agreement (Attachment 3) specifically allow GWR to have the exclusive right to request a contract extension prior to the expiration of the contract. GWR has made that request, although it is considerably earlier than expected due to the recent expansion and reconstruction of their facilities in Watsonville. The City of Scotts Valley has approved an extension request; the County of Santa Cruz is considering a similar request in conjunction with changes to their Ordinance governing collection.

In addition, the franchise agreement allows for an annual customer rate increase of 100% of the San Francisco – Oakland – San Jose Bay Area Consumer Price Index (CPI), which is 3.188% effective January 1, 2013. GWR has agreed to reduce the rate increase by 10% as part of this proposed contract amendment. Below is a rate comparison:

	City of Capitola	County of Santa Cruz	City of Santa Cruz	City of Watsonville	City of Scotts Valley
64 Gallon	\$ 25.12	\$ 37.12	\$ 55.84	\$ 33.62	\$ 36.53

The alternative is to deny the extension, and prior to the contract expiration on December 31, 2018 the City would conduct a request for proposal process. The City could research the City of Santa Cruz or Watsonville to provide service, although their rates are significantly higher than our current rates.

**FISCAL IMPACT:** The increase of 2.87% results in the average residential customer increase of \$0.70 cents per month.

**ATTACHMENTS:**

1. Letter of Request from GWR
2. Draft Franchise Agreement Amendment
3. Original Agreement – Available upon request.
4. Draft Resolution

Report Prepared By: Lisa G. Murphy  
Administrative Services Director

Reviewed and Forwarded  
by City Manager: 

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Lisa Murphy  
Administrative Service Director  
City of Capitola  
Capitola Ca. 95010

Dear Lisa,

As you may know Greenwaste Recovery is currently in the process of completing construction of a new Facility at 375 Industrial Rd. in Watsonville. GWR's current facility at 1340 West Beach St. no longer can facilitate the volume of recyclable material that is being collected from the three franchise area's we service. GWR has and will always make the commitment to continue to expand our recycling efforts to facilitate the needs of our customers.

For the above mentioned reasons GWR is requesting the City of Capitola extend our current franchise agreement to expire on December 31 ,2022 which would currently expire on December 31,2018 .

The franchise agreement has language in the current agreement under the title of **TERM** on page 46 that gives the City of Capitola and GWR the right to extend the current agreement.

Extending the current franchise agreement would allow GWR to amortize the construction expense over a longer period and reduce the monthly impact to the local operation.

The City of Scotts Valley has already extended their agreement four years and we are currently in discussions with the County of Santa Cruz on the same topic.

Yours truly,



Jim Moresco  
General Manager.

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## REFUSE, RECYCLING AND YARD WASTE SERVICES FRANCHISE AGREEMENT

2<sup>ND</sup> AMENDMENT

This Second Amendment to Agreement for Refuse, Recycling and Yard Waste Services Franchise Agreement (“Second Amendment”) is entered into on this \_\_\_\_ day of \_\_\_\_\_ by and between the CITY OF CAPITOLA, a Municipal Corporation (the “City”) and GREENWASTE RECOVERY INC., a California Corporation (“Franchisee”) is made with reference to the parties’ September 1, 2008 Agreement for Refuse, Recycling and Yard Waste Services (the Agreement”) and the First Amendment to the Agreement, and with reference to the following facts:

Section 7.1.C. of the Agreement states, in relevant part:

**SECTION 7.1. SERVICE FEE/BILLING PROCEDURES.**

C. Modification of the Service Fee Schedules. Commencing on January 1, 2009 and on January 1<sup>st</sup> of each subsequent year during the Term of the Franchise, amounts contained in the Service Fee Schedules herein provided in Appendix C shall be changed by 100% of the change in the C.P.I. (All Urban Consumers Index, San Francisco-Oakland-San Jose) for the latest 12 month period for which data are available in time to compute and bill the fee change. Rate changes will not be applied to services, which have already been billed (whether or not performed) prior to Franchisee’s mailing of notice of rate increase. The City Manager or designee shall perform rate change calculations. For fee changes in the 2009 calendar year and thereafter, and commencing 30 days after written notice has been provided to all of Franchisee’s Capitola Customers, Franchisee can additionally increase (or decrease) rates, by the percentage resulting from the following formula: to determine the increase in tipping fee, less CPI%, weighted to the ratio of total prior year Tipping Fees paid to Total Revenues Collected, grossed up for Next Year Franchise %, and then, add to the CPI%. [*Remainder of Paragraph Intentionally Omitted*]

Section 9.1 of the Agreement states:

**SECTION 9.1. TERM.** The term of this Franchise shall commence on September 1, 2008 and shall end on December 31, 2018. The City hereby grants Franchisee the exclusive option to submit a proposal for extending the Franchise Agreement beyond December 31, 2018. Franchisee must submit any such proposal no later than August 31, 2017 and if no such proposal is forthcoming on or before August 31, 2017, Franchisee’s exclusive option to submit a proposal as herein set forth shall automatically terminate. If Franchisee submits such a proposal but City and Franchisee have not agreed to terms for a Franchise Agreement extension on or before March 1, 2018, City at its sole discretion, may solicit bid proposals for waste and recycling collection services of the types provided for in this Franchise Agreement from any other firm or vendor.

Franchisee has exercised its option to submit a proposal for extending the Agreement beyond December 31, 2018, and the City and Franchisee’s have agreed to extend, modify, and further amend the Agreement, in relevant part, as follows:

SECTION 7.1. SERVICE FEE/BILLING PROCEDURES.

C. Modification of the Service Fee Schedules. Commencing on January 1, 2013, the amounts contained in the Service Fee Schedules herein provided in Appendix C shall be changed by 90% of the change in the CPI (All Urban Consumers Index, San Francisco-Oakland-San Jose) for the latest 12 month period for which data are available in time to compute and bill the fee change. Commencing on January 1, 2014, and on January 1<sup>st</sup> of each subsequent year during the Term of the Franchise, amounts contained in the Service Fee Schedules herein provided in Appendix C shall be changed by 100% of the change in the C.P.I. (All Urban Consumers Index, San Francisco-Oakland-San Jose) for the latest 12 month period for which data are available in time to compute and bill the fee change. Rate changes will not be applied to services, which have already been billed (whether or not performed) prior to Franchisee’s mailing of notice of rate increase. The City Manager or designee shall perform rate change calculations. For fee changes in the 2009 calendar year and thereafter, and commencing 30 days after written notice has been provided to all of Franchisee’s Capitola Customers, Franchisee can additionally increase (or decrease) rates, by the percentage resulting from the following formula: to determine the increase in tipping fee, less CPI%, weighted to the ratio of total prior year Tipping Fees paid to Total Revenues Collected, grossed up for Next Year Franchise %, and then, add to the CPI%. *[Remainder of Paragraph Intentionally Omitted and Not Modified by this Second Amendment]*

SECTION 9.1. TERM. The term of this Franchise shall commence on September 1, 2008 and shall end on December 31, 2022.

GREENWASTE RECOVERY INC.

CITY OF CAPITOLA

By: \_\_\_\_\_

By: \_\_\_\_\_

Its: \_\_\_\_\_

Its: \_\_\_\_\_

RESOLUTION NO. \_\_\_\_\_

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CAPITOLA  
APPROVING A RATE SCHEDULE FOR RESIDENTIAL AND COMMERCIAL  
GARBAGE COLLECTION AND RECYCLING IN CAPITOLA EFFECTIVE JANUARY 1, 2013  
SUPERSEDING RESOLUTION NO. 3899**

WHEREAS, the City of Capitola has a franchise agreement with Greenwaste Recovery, Inc., for refuse, recycling, yard and food waste collection; and

WHEREAS, the franchise agreement allows for Greenwaste Recovery to increase the rates annually by 100% of the Consumer Price Index for San Francisco-Oakland-San Jose area which was 3.188% for the period ending October 2012; and

WHEREAS, the rate will be reduced for one year by 10% of the CPI in accordance with the Second Amendment to the Franchise Agreement and therefore the total rate increase will be 2.87%; and

WHEREAS, the City Council adopted Resolution No. 3899 on December 8, 2012, which adopted a rate schedule effective January 1, 2012; and

WHEREAS, the total fee increase for both commercial and residential will increase by 2.87%, as per the Franchise Agreement dated April 24, 2008, effective January 1, 2013; and

WHEREAS, the City Council considered the garbage rate increase at a public meeting where members of the public had the opportunity to address the council on the proposed increase.

NOW, THEREFORE, BE IT HEREBY RESOLVED that the City Council of the City of Capitola approves the Rate Schedule for Residential and Commercial Refuse, Recycling and Yard Waste in Capitola as shown on the "Schedule of Rates" attached to this resolution (Exhibit A-1, Residential Rates; Exhibit A-2 Commercial Rates) effective January 1, 2013.

BE IT FURTHER RESOLVED that this resolution supercedes Resolution No. 3899.

I HEREBY CERTIFY that the above and foregoing resolution was passed and adopted by the City Council of the City of Capitola at its regular meeting held on the 13<sup>th</sup> day of December, 2013, by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

\_\_\_\_\_  
Michael Termini, Mayor

ATTEST:

\_\_\_\_\_, CMC  
Susan Sneddon, City Clerk

EXHIBIT A-1

**City of Capitola Residential Rate Structure  
Contract Year Beginning January 1, 2013**

1 ) Residential	# of Carts	1/1/2012 Rates		1/1/2013 CPI Adj 2.869%	
		Monthly	Quarterly	Monthly	Quarterly
10 Gallon	1	\$ 10.64	\$ 31.93	\$ 10.95	\$ 32.85
20 Gallon	1	\$ 12.67	\$ 38.00	\$ 13.03	\$ 39.09
35 Gallon	1	\$ 14.35	\$ 43.05	\$ 14.76	\$ 44.29
35 Gallon	2	\$ 28.70	\$ 86.11	\$ 29.53	\$ 88.58
35 Gallon	3	\$ 44.19	\$ 132.56	\$ 45.45	\$ 136.36
35 Gallon	4	\$ 59.10	\$ 177.31	\$ 60.80	\$ 182.40
35 Gallon	5	\$ 73.67	\$ 221.02	\$ 75.79	\$ 227.36
35 Gallon	6	\$ 88.41	\$ 265.23	\$ 90.95	\$ 272.84
35 Gallon	7	\$ 103.18	\$ 309.54	\$ 106.14	\$ 318.43
35 Gallon	8	\$ 114.94	\$ 344.83	\$ 118.24	\$ 354.73
64 Gallon	1	\$ 24.42	\$ 73.25	\$ 25.12	\$ 75.35
64 Gallon	2	\$ 48.82	\$ 146.46	\$ 50.22	\$ 150.67
64 Gallon	3	\$ 195.33	\$ 586.00	\$ 200.94	\$ 602.82
96 Gallon	1	\$ 34.60	\$ 103.81	\$ 35.60	\$ 106.79
96 Gallon	2	\$ 69.17	\$ 207.51	\$ 71.15	\$ 213.46
96 Gallon	3	\$ 103.76	\$ 311.28	\$ 106.74	\$ 320.21
96 Gallon	4	\$ 134.45	\$ 403.35	\$ 138.31	\$ 414.92
96 Gallon	5	\$ 172.93	\$ 518.78	\$ 177.89	\$ 533.67

Items 2 through 6 will not be changed during Franchise Term, i.e., will not receive the COLA adjustment as set forth in section 7.1c

2  
) Special pick-up for service not on a regular schedule

\$25.00 plus \$2.50 per bag, \$2.75 per 32 gallon can. For other means of bundling or containing, \$2.75 for each equivalent in volume to a 32 gallon can.

3  
) Special Service for walk-in by driver

\$5.00 per can or bag plus the monthly rate. Except as provided in Section 4.1.B(4).

4  
) Extra containers picked up at time of regular service shall be billed as in #2 above, but without the \$25.00 charge.

5  
) Bulky Goods Items Pricing

Furniture	\$ 15.00	per large item	\$ 10.00
Non-CFC Appliance	\$ 25.00	per large item	\$ 15.00
Carpet	\$ 0.50	per square foot	\$ 0.50

## RESOLUTION NO. \_\_

6  
 ) Service ReStart \$ 25.00 \$ 25.00

## EXHIBIT A-2

**City of Capitola Commercial Rate Structure  
 Contract Year Beginning January 1, 2013**

# of bins	Commercial Bins		Rate	CPI Increase
	Bin Size	Frequenc y	1/1/2012	2.869%
1	1 cu yd	1	\$ 145.78	\$ 149.97
1	1 cu yd	2	\$ 220.34	\$ 226.67
1	1 cu yd	3	\$ 294.77	\$ 303.23
1	1 cu yd	4	\$ 369.49	\$ 380.09
1	1 cu yd	5	\$ 444.06	\$ 456.80
1	1 cu yd	6	\$ 518.62	\$ 533.50
2	1 cu yd	1	\$ 220.34	\$ 226.67
2	1 cu yd	2	\$ 369.49	\$ 380.09
2	1 cu yd	3	\$ 518.62	\$ 533.50
2	1 cu yd	4	\$ 667.77	\$ 686.93
2	1 cu yd	5	\$ 816.89	\$ 840.33
2	1 cu yd	6	\$ 966.02	\$ 993.74
3	1 cu yd	1	\$ 294.91	\$ 303.38
3	1 cu yd	2	\$ 518.63	\$ 533.51
3	1 cu yd	3	\$ 742.47	\$ 763.78
3	1 cu yd	4	\$ 966.04	\$ 993.76
3	1 cu yd	5	\$1,189.74	\$1,223.88
3	1 cu yd	6	\$1,413.42	\$1,453.98
4	1 cu yd	1	\$ 369.49	\$ 380.09
4	1 cu yd	2	\$ 667.77	\$ 686.93
4	1 cu yd	3	\$ 966.33	\$ 994.06
4	1 cu yd	4	\$1,264.33	\$1,300.61
4	1 cu yd	5	\$1,562.60	\$1,607.44
4	1 cu yd	6	\$1,860.83	\$1,914.22
1	2 cu yd	1	\$ 220.38	\$ 226.70
1	2 cu yd	2	\$ 369.49	\$ 380.09
1	2 cu yd	3	\$ 518.62	\$ 533.50
1	2 cu yd	4	\$ 667.77	\$ 686.93
1	2 cu yd	5	\$ 816.89	\$ 840.33
1	2 cu yd	6	\$ 966.02	\$ 993.74
2	2 cu yd	1	\$ 369.49	\$ 380.09
2	2 cu yd	2	\$ 667.77	\$ 686.93
2	2 cu yd	3	\$ 966.03	\$ 993.75
2	2 cu yd	4	\$1,264.32	\$1,300.59
2	2 cu yd	5	\$1,562.61	\$1,607.45
2	2 cu yd	6	\$1,860.89	\$1,914.28
3	2 cu yd	1	\$ 518.62	\$ 533.50
3	2 cu yd	2	\$ 966.03	\$ 993.75
3	2 cu yd	3	\$1,413.46	\$1,454.02
3	2 cu yd	4	\$1,860.89	\$1,914.28
3	2 cu yd	5	\$2,308.29	\$2,374.52
1	3 cu yd	1	\$ 294.90	\$ 303.36
1	3 cu yd	2	\$ 517.13	\$ 531.97

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1	3 cu yd	3	\$ 742.33	\$ 763.63
1	3 cu yd	4	\$ 966.03	\$ 993.75

EXHIBIT A-2 (continued)

1	3 cu yd	5	\$1,189.76	\$1,223.90
1	3 cu yd	6	\$1,413.46	\$1,454.02
2	3 cu yd	1	\$ 518.62	\$ 533.50
2	3 cu yd	2	\$ 966.03	\$ 993.75
2	3 cu yd	3	\$1,413.46	\$1,454.02
2	3 cu yd	4	\$1,860.89	\$1,914.28
2	3 cu yd	5	\$2,308.29	\$2,374.52
2	3 cu yd	6	\$2,755.72	\$2,834.79
3	3 cu yd	1	\$ 742.32	\$ 763.62
3	3 cu yd	2	\$1,413.46	\$1,454.02
3	3 cu yd	3	\$2,084.59	\$2,144.40
3	3 cu yd	4	\$2,755.72	\$2,834.79
3	3 cu yd	5	\$3,426.85	\$3,525.18
3	3 cu yd	6	\$4,097.97	\$4,215.56
4	3 cu yd	1	\$ 966.03	\$ 993.75
4	3 cu yd	2	\$1,860.89	\$1,914.28
4	3 cu yd	3	\$2,755.72	\$2,834.79
4	3 cu yd	4	\$3,650.55	\$3,755.30
4	3 cu yd	5	\$4,545.41	\$4,675.84
4	3 cu yd	6	\$5,440.21	\$5,596.31
1	4 cu yd	1	\$ 369.49	\$ 380.09
1	4 cu yd	2	\$ 667.77	\$ 686.93
1	4 cu yd	3	\$ 966.03	\$ 993.75
1	4 cu yd	4	\$1,264.32	\$1,300.59
1	4 cu yd	5	\$1,562.61	\$1,607.45
1	4 cu yd	6	\$1,860.89	\$1,914.28
2	4 cu yd	1	\$ 667.77	\$ 686.93
2	4 cu yd	2	\$1,264.32	\$1,300.59
2	4 cu yd	3	\$1,860.89	\$1,914.28
2	4 cu yd	4	\$2,528.20	\$2,600.74
2	4 cu yd	5	\$3,053.98	\$3,141.61
2	4 cu yd	6	\$3,650.55	\$3,755.30
3	4 cu yd	1	\$ 965.55	\$ 993.26
3	4 cu yd	2	\$1,860.89	\$1,914.28
3	4 cu yd	3	\$2,755.72	\$2,834.79
3	4 cu yd	4	\$3,650.55	\$3,755.30
3	4 cu yd	5	\$4,545.41	\$4,675.84
3	4 cu yd	6	\$5,440.21	\$5,596.31
4	4 cu yd	1	\$1,264.32	\$1,300.59
4	4 cu yd	2	\$2,457.44	\$2,527.96
4	4 cu yd	3	\$3,650.56	\$3,755.31
4	4 cu yd	4	\$4,843.65	\$4,982.64
4	4 cu yd	5	\$6,036.84	\$6,210.06



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4      4 cu yd      6      \$7,229.87 | \$7,437.33

EXHIBIT A-2 (continued)

5	4 cu yd	1	\$1,607.58	\$1,653.71
5	4 cu yd	2	\$3,053.99	\$3,141.62
5	4 cu yd	3	\$4,545.40	\$4,675.83
5	4 cu yd	4	\$6,036.77	\$6,209.99
5	4 cu yd	5	\$7,528.25	\$7,744.27
5	4 cu yd	6	\$9,019.55	\$9,278.37
1	6 cu yd	1	\$ 518.62	\$ 533.50
1	6 cu yd	2	\$ 966.03	\$ 993.75
1	6 cu yd	3	\$1,413.46	\$1,454.02
1	6 cu yd	4	\$1,860.89	\$1,914.28
1	6 cu yd	5	\$2,308.29	\$2,374.52
1	6 cu yd	6	\$2,755.72	\$2,834.79
2	6 cu yd	1	\$ 966.03	\$ 993.75
2	6 cu yd	2	\$1,860.89	\$1,914.28
2	6 cu yd	3	\$2,755.72	\$2,834.79
2	6 cu yd	4	\$3,650.52	\$3,755.27
2	6 cu yd	5	\$4,545.40	\$4,675.83
2	6 cu yd	6	\$5,440.23	\$5,596.34
1	8 cu yd	1	\$ 667.77	\$ 686.93
1	8 cu yd	2	\$1,264.32	\$1,300.59
1	8 cu yd	3	\$1,860.89	\$1,914.28
1	8 cu yd	4	\$2,457.43	\$2,527.95
1	8 cu yd	5	\$3,054.00	\$3,141.63
1	8 cu yd	6	\$3,650.52	\$3,755.27
<b>Commercial Carts</b>				
1	35G		\$ 19.11	\$ 19.65
1	64G		\$ 38.63	\$ 39.74
1	96G		\$ 57.48	\$ 59.12
<b>Commercial Cans</b>				
1	32G		\$ 14.60	\$ 15.02
2	32G		\$ 29.21	\$ 30.05
3	32G		\$ 43.82	\$ 45.08
<b>Drop Box Rates</b>				
1	15 Yard		\$ 413.09	\$ 424.94
1	20 Yard		\$ 496.34	\$ 510.59
1	30 Yard		\$ 664.76	\$ 683.84
1	40 Yard		\$ 886.09	\$ 911.52
1	Compact			
1	r		\$ 315.97	\$ 325.04
	per pull plus disposal fees			

DRAFT



## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: DEPARTMENT OF PUBLIC WORKS

SUBJECT: CONCEPTUAL APPROVAL OF LOCAL HAZARD MITIGATION PLAN

**RECOMMENDED ACTION:** Take the following actions: Conceptually approve a Local Hazard Mitigation Plan prepared for the City of Capitola, and authorize submission of the Plan to the California Emergency Management Agency (CalEMA) and Federal Emergency Management Agency (FEMA) for review prior to final adoption by the City as required by the Disaster Mitigation Act of 2000.

**BACKGROUND:** After the March 2011 flood events, the City of Capitola pursued and received Community Development Block Grant Disaster Recovery Initiative Grant funding to prepare a Local Hazard Mitigation Plan (LHMP). The purpose of the LHMP is to identify critical facilities that are vital to the City's response during a natural disaster, particularly those that are currently vulnerable or at risk, assesses our vulnerability to a variety of natural disasters (earthquake, flood, coastal erosion, etc), and identifies needed mitigation actions.

The Disaster Mitigation Act of 2000 requires that state and local governments develop and adopt a Local Hazard Mitigation Plan in order to receive certain federal financial assistance. Capitola will be eligible to receive state and federal assistance for a variety of mitigation projects. The CDBG grant was received in Fall 2011, and after a request for proposal process, RBF Consulting was hired to completed the plan.

**DISCUSSION:** The LHMP process was begun in December 2011 with the creation of a Countywide Technical Advisory Committee to review the development of the Plan and provide multi-agency comments. The Technical Advisory Committee (TAC) included the City Manager's Office, Public Works Department, Community Development Department, Fire Department, Police Department, as well as Santa Cruz Regional 911, Soquel Creek Water District, Soquel Union Elementary School District, Central Fire Protection District of Santa Cruz County, National Oceanic and Atmospheric Administration, Red Cross, California State Parks, Santa Cruz County Public Works, Flood Control and Water Conservation District, Santa Cruz County Sanitation District, and the County of Santa Cruz Office of Emergency Services. The TAC met in December 2011, March 2012 and June 2012.

The draft LHMP identifies critical facilities such as public buildings, transportation systems, emergency response communications networks, high potential loss facilities, hazardous material facilities, and important public resources which are vital to the City's response during a natural disaster or might be at risk during a disaster. The Plan also assesses Capitola's vulnerability to natural hazards, such as a coastal storm, flood, drought, coastal erosion, earthquake, landslide, etc. It then identifies mitigation actions to assist with making Capitola and our critical facilities more resilient during a natural disaster. The focus of the plan is identifying facilities threatened by current hazards. Future hazards such as sea level rise are discussed as an impact that will need additional studies to determine their cumulative affects. Long-range planning to address the issue of sea level rise will be addressed as part of the General Plan Update.

## Item #: 9.E. Staff Report.pdf

AGENDA STAFF REPORT DECEMBER 13, 2012  
LOCAL HAZARD MITIGATION PLAN

Bill Wiseman of RBF Consulting will provide a brief presentation on the LHMP at the Council meeting.

The LHMP was reviewed by the Planning Commission at Public Hearing on October 4, 2012. Comments from this meeting are included as Attachment 2.

The only other comments received on the LHMP were received from the City's Museum Director Carolyn Swift regarding photo credits for the history of disasters which she compiled for the report. These comments are included as Attachment 3 and will be incorporated into the final draft prior to submission to CalEMA and FEMA.

**FISCAL IMPACT:** Upon final adoption of the LHMP, the City will be eligible for State and Federal funding opportunities to implement projects that mitigate impacts identified in the report.

### **ATTACHMENTS:**

1. Draft Local Hazard Mitigation Plan dated July 2012
2. Appendix A – Timeline of Capitola Natural Hazard Events
3. Planning Commission Comments from October 4, 2012
4. Carolyn Swift comments

**Report Prepared By:** Steven Jesberg  
Public Works Director

**Reviewed and Forwarded  
By City Manager:** 



# Local Hazard Mitigation Plan



**Draft**



## **Local Hazard Mitigation Plan**

*Prepared by*



**2012**





# Acknowledgements

---

## *City of Capitola*

Jamie Goldstein, City Manager  
 Susan Westman, Interim Community Development Director  
 Steve Jesberg, Public Works Director  
 Rudy Escalante, Chief of Police  
 Michael Card, Chief of Police (Retired)  
 Tom Held, Captain  
 Larry Laurent, Information Technology  
 Carolyn Flynn, LHMP Coordinator

## *Consulting Team*

*RBF Consulting*  
 Bill Wiseman, Project Director  
 Aaron Pfannenstiel, Project Manager  
 Jonathan Schuppert, Planner  
 Alex Pohlman, Planner  
 Lane Simmons, GIS Analyst

*Dewberry*  
 Corinne Bartshire, Deputy Project Manager  
 Janna Newman, Planner

## *LHMP Technical Advisory Committee*

Scotty Douglas, General Manager, Santa Cruz Regional 911  
 Paul Horvatt, Emergency Services Manager, County of Santa Cruz  
 Kevin C. Cole, Field Crew Supervisor/Safety, Soquel Creek Water District  
 Shelley Flock, Staff Analyst, Soquel Creek Water District  
 Paul Rucker, Director of Maintenance & Operations, Soquel Union Elementary School District  
 Jeff Maxwell, Chief, Central Fire Protection District of Santa Cruz County  
 Owen Miller, Battalion Chief, Central Fire Protection District of Santa Cruz County  
 Tom Evans, Warning Coordinator – Meteorology, National Weather Service  
 Logan Johnson, Warning Coordination Meteorologist, National Weather Service  
 Patsy Hernandez, Red Cross  
 Charles Bockman, Parks Superintendent, California State Parks  
 Don Hill, Assistant Director, County Public Works & Flood Control & Water Conservation District (Zone 5)  
 Rachael Fatoohi, County of Santa Cruz Senior Civil Engineer  
 Rachel Lather, Senior Civil Engineer, Santa Cruz County Sanitation District  
 Wendy Abbott Sarsfield, Central Coast Government Relations, PG&E  
 Dave Revell, Geomorphologist, Phillips, Williams & Associates



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## Appendices

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Appendix A – Timeline of Capitola Natural Hazard Events

Appendix B – Detailed Critical Facilities Inventory (provided on CD)

Appendix C – Local Hazard Mitigation Planning Meeting Materials (provided on CD)

Appendix D – Public Outreach Survey and Materials (provided on CD)

# Chapter One - Introduction

Natural hazards and extreme weather events are an ongoing part of the cycle of weather and seasons. However, when natural hazards such as earthquakes, tsunamis or coastal storms are at their height, they pose severe risk to people and property. They can cause death or leave people injured or displaced, cause significant damage to our communities, businesses, public infrastructure and environment, and cost tremendous amounts in terms of response and recovery dollars and can contribute to economic loss.

In March 2011, the City of Capitola experienced significant rain events that caused a catastrophic failure of a storm drain, resulting in flooding of the Capitola Village. Damages associated with this flooding are estimated at approximately \$4 million in the City of Capitola and \$15 million dollars countywide, damaging many business and City facilities. In response to this event, the City pursued grant funding to prepare this Local Hazard Mitigation Plan (LHMP or the Plan). In October 2011, the City of Capitola received a grant from the Disaster Recovery Initiative (DRI) through the California Department of Housing and Community Development, which provided the needed funding to initiate the Hazard Mitigation Planning process for the City of Capitola. By December 2011, the City conducted its first Technical Advisory Committee (TAC) meeting, which kicked off the Capitola Hazard Mitigation Plan preparation.

A successful hazard mitigation strategy enables the implementation and sustaining of local actions that reduce vulnerability and risk from hazards, or reduce the severity of the effects of hazards on people and property. Historically, in many local jurisdictions, disasters are followed by repairs and reconstruction which simply restore the area to pre-disaster conditions. Capitola has experienced many natural hazard events during its history (Appendix A – Timeline of Capitola Natural Hazard Events). Such efforts expedite a return to normalcy; however, the replication of pre-disaster conditions results in a cycle of damage, reconstruction, and repeated damage. Hazard mitigation ensures that post-disaster repairs and reconstruction result in a true reduction in future hazard vulnerability.

While we cannot prevent disasters from happening, their effects can be reduced or eliminated through a well-organized public education and awareness effort, preparedness activities and mitigation actions. For those hazards which cannot be fully mitigated, the community must be prepared to provide efficient and effective response and recovery. As a coastal community, the City of Capitola has historically experienced extreme wave surges, coastal storms, and flooding on a cyclical basis. In addition, Capitola is near the San Andreas earthquake fault line, and is at risk from tsunami, and a variety of other natural disasters. This Hazard Mitigation Plan (Plan) outlines opportunities to increase Capitola's resiliency in the face of future natural hazards.

## 1.1 PURPOSE OF THE PLAN

As the cost of damages from natural disasters continues to increase, the City of Capitola understands the importance of identifying effective ways to reduce vulnerability to disasters. This Plan assists Capitola in reducing vulnerability to disasters by identifying critical facilities (Appendix B – Detailed Critical Facilities Inventory), resources, information, and strategies for risk reduction, while helping to guide and coordinate mitigation actions.

The Plan provides a set of strategies intended to do the following: reduce risk from natural hazards through education and outreach programs, foster the development of partnerships, and implement risk reduction activities.

The resources and information within the Plan:

- Establish a basis for coordination and collaboration among participating agencies and public entities;
- Identify and prioritize future mitigation projects; and
- Assist in meeting the requirements of federal assistance programs.

The Capitola Hazard Mitigation Plan works in conjunction with other plans, including the General Plan, Local Coastal Plan, and Emergency Operations Plan.

## **1.2 AUTHORITY**

The Disaster Mitigation Act of 2000 (DMA 2000), Section 322 (a-d) requires that local governments, as a condition of receiving federal disaster mitigation funds, have a mitigation plan that describes the process for identifying hazards, risks and vulnerabilities, identifies and prioritizes mitigation actions, encourages the development of local mitigation and provides technical support for those efforts. This mitigation plan serves to meet these requirements.

## **1.3 PLAN ADOPTION**

The City of Capitola will use a resolution to adopt the local hazard mitigation plan (see sample below). Currently, the adoption process is scheduled for October or November 2012.

## **1.4 PLAN USE**

Each section of the mitigation plan provides information and resources to assist people in understanding the hazard-related issues facing residents, businesses, and the environment. The structure of the plan enables people to use a section of interest to them and allows the City of Capitola to review and update sections when new data is available. The ability to update individual sections of the mitigation plan places less of a financial burden on the City. Decision makers can allocate funding and staff resources to selected pieces in need of review, thereby avoiding a full update, which can be costly and time consuming. The ease of incorporating new data into the plan will result in a hazard mitigation plan that remains current and relevant to Capitola.

The Hazard Mitigation Plan is comprised of the following chapters:

### Chapter 1: Introduction

The Introduction describes the background and purpose of developing the mitigation plan in addition to introducing the mitigation priorities and summarizing the planning process.

### Chapter 2: Community Profile

The Community Profile presents the history, geography, demographics, and socioeconomics of Capitola. It serves as a tool to provide a historical perspective of natural hazards in the City.

### Chapter 3: Hazards Assessment

This chapter provides information on hazard identification, hazard profiles, vulnerability and risk associated with natural hazards, and a vulnerability assessment of critical facilities in relation to the identified hazards.

### Chapter 4: Mitigation Actions

This chapter provides strategies and mitigation actions to reduce potential risks to Capitola's critical facilities, residents, and businesses.

### Chapter 5: Plan Maintenance/ Capabilities

This chapter provides information on plan implementation, monitoring and evaluation, discusses the assets and capabilities available to achieve the proposed mitigation actions outlined in Chapter 4, and opportunities for continued public involvement.

## **1.5 MITIGATION PRIORITIES AND GOALS**

The mission of the Capitola Hazard Mitigation Plan is to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from natural hazards. This can be achieved by increasing public awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the City toward building a safer, more sustainable community.



**Sample City Council Resolution**

**RESOLUTION ADOPTING A LOCAL HAZARD MITIGATION PLAN FOR THE  
City of Capitola:**

WHEREAS, the Disaster Mitigation Act of 2000, as amended, requires that state and local governments, tribal nations and other eligible applicants develop and adopt hazard mitigation plans in order to receive certain federal assistance, and

WHEREAS, a Technical Advisory Committee (“TAC”) comprised of representatives from the City and partnering local agencies was convened in order to study the risks from and vulnerabilities to natural hazards, and to make recommendations on mitigating the effects of such hazards to the City; and

WHEREAS, a request for proposals was issued to hire an experienced consulting firm to work with the TAC to develop a comprehensive hazard mitigation plan for the City;

WHEREAS, the efforts of the TAC members and the consulting firm, in consultation with members of the public, private, and non-profit sectors, have resulted in the development of a Hazard Mitigation Plan for the City of Capitola; and

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Capitola, that the Hazard Mitigation Plan dated *(insert date)* is hereby approved and adopted for the City of Capitola. A copy of the plan is attached to this resolution.

ADOPTED by the City Council this \_\_\_\_ day of \_\_\_\_\_, 2012.

APPROVED:

\_\_\_\_\_

*(Title, Name)*

\_\_\_\_\_

*(Title, Name)*

The City's Technical Advisory Committee (TAC) has adopted, with minor modifications, the goals identified by Santa Cruz County. The four primary goals for reducing disaster risk in the Capitola Hazard Mitigation Plan include:

1. Avoid or reduce the potential for loss of life, injury and economic damage to Capitola residents from earthquakes, floods, drought, tsunami, coastal erosion/ bluff failure, and other geological hazards.
2. Increase the ability of the City government to serve the community during and after hazard events.
3. Protect Capitola's unique character, scenic beauty and values from being compromised by hazard events.
4. Encourage mitigation activities to increase the disaster resilience of institutions, private companies and systems essential to a functioning City of Capitola.

## **1.6 HAZARD MITIGATION PLANNING PROCESS**

This Plan is the first Hazard Mitigation Plan pursuant to the Disaster Mitigation Act of 2000 for the City of Capitola. The primary City staff developing and maintaining this plan comprise the Hazard Mitigation Planning (HMP) Team. Members of this team represent the following City Departments:

- Public Works Department
- City Manager's Office
- Police Department
- Community Development Department

The HMP Team is responsible for the development, implementation, and maintenance of this plan. A Technical Advisory Committee (TAC) was formed for the specific purpose of advising the HMP Team during development of this plan. Coordination with the TAC enables ongoing risk reduction coordination throughout the City. The TAC includes representatives from the following local agencies:

- Central Fire Protection District
- County of Santa Cruz
- Santa Cruz Regional 911
- Soquel Creek Water District
- Soquel Union Elementary School District
- Central Fire Protection District of Santa Cruz County
- NOAA
- Red Cross
- California State Parks
- Santa Cruz County Public Works, Flood Control and Water Conservation District
- Santa Cruz County Sanitation District
- Phillips, Williams & Associates (Sea Level Rise Consultant)

Table 1: Meeting Summaries and Public Involvement Opportunities summarizes the milestone TAC meetings and public outreach conducted during the hazard mitigation planning process. For detailed information from each meeting please refer to Appendix C – Local Hazard Mitigation Planning Meeting Materials.

**Table 1: Meeting Summaries and Public Involvement Opportunities**

Date	Purpose
December 8, 2011	TAC Meeting #1 – Kick Off meeting for the Technical Advisory Committee. This meeting focused on identification and prioritization of the hazards of concern for the City. This meeting also included a discussion of the critical facilities list initially prepared by the HMP Team and goals and policies.
March 22, 2012	<p>TAC Meeting #2 – The Technical Advisory Committee reviewed draft profiles developed for the identified hazards. The consultant provided an overview of the hazard profiles. The TAC provided comments on the profiles, which have been incorporated into this Plan. Although sea level rise was previously identified as a potential hazard, the TAC decided to address this hazard under a Climate Change Considerations discussion for each hazard profile.</p> <p>A critical facilities list was reviewed and finalized and mapping of subsurface infrastructure was discussed. A Risk Assessment methodology was also discussed and the TAC voiced concern over aging infrastructure and the potential for future failure as a result of poor upkeep or age of affected facilities.</p> <p>A review of goals and policies was conducted and it was decided that the goals and policies to be incorporated into the Plan will be structured in a similar fashion to the County of Santa Cruz goals and policies.</p> <p>In addition, during TAC Meeting #2, an overview of the sea level rise analysis that is currently being prepared for the Monterey Bay region by ESA/PWA was presented.</p>
March – May 2012 Public Outreach	<p>Public Outreach –</p> <p>The City published an article in the Capitola Currents Newsletter Spring 2012 issue which promoted the hazard mitigation planning process and invited public participation via an online survey.</p> <p>The Mid County Post published an article on March 27, 2012 regarding the hazard mitigation planning process and invited interested public to learn more at the May 12, 2012 community meeting.</p> <p>On April 13, 2012, the City issued a press release promoting the hazard mitigation planning process and inviting the public to participate in the online survey.</p> <p>Another press release was issued on April 26, 2012 encouraging attendance at the May 12, 2012 community meeting.</p> <p>The Capitola Soquel Times printed two articles in the May 2012 issue noting the hazard mitigation planning process and announcing the May 12, 2012 community meeting.</p> <p>The Santa Cruz Sentinel also posted an article on May 8, 2012 noting the hazard mitigation planning process and announcing the May 12, 2012 community meeting.</p> <p>All of the press releases and news articles included the weblink to the online survey and encouraged public participation</p>
May 12, 2012	Community Meeting – The consultant, on behalf of the TAC, presented a summary of the hazard mitigation planning process to date, addressed questions from the public, and distributed the online survey weblink. Members of the General Plan Advisory Council were in attendance and able to begin a strategy to integrate the hazard mitigation plan into the update of the City's General Plan.
June 28, 2012	TAC Meeting #3 – The Technical Advisory Committee reviewed draft mitigation actions prepared by the City
Public Outreach	Upon completion of the Draft Local Hazard Mitigation Plan, the City distributed the document to public agencies, TAC members, and posted the document on the City's website for public review and comment. A 30 day review period was conducted, which started on July 27, 2012 and finished on August 27, 2012.

**1.7 SURVEY RESULTS**

In March 2012, the City of Capitola issued an online survey soliciting public input regarding their concerns regarding natural hazards and disasters. As part of the survey, questions were also asked about emergency/disaster preparedness, which assisted the Planning Team in gauging the public's level of preparedness for emergencies. A copy of this online survey, tabulated survey results from 26 responses, and supporting materials can be found in Appendix D – Public Outreach Survey and Materials. Highlights of the survey include:

- According to a majority of respondents, coastal storm/flooding, earthquake, windstorm, and drought are the top hazard events that have affected their residence or business/place of work in the City of Capitola.
- Respondents indicated that the hazards of most concern are coastal storm/flooding, earthquake, coastal erosion/bluff failure, and tsunami.
- 47% of respondents who are property owners indicated they have homeowner's insurance.
- Top disaster preparedness items that respondents have include: Portable AM/FM radio (Battery powered), 72 hour kit, and disaster training.
- 53% of respondents indicated that they are aware of the special needs of their neighbors.
- 70% of respondents indicated that they are aware of the floodplain area in the City.
- 60% of respondents indicated that they are aware of the tsunami inundation zone in the City.
- 58% of respondents indicated that they are aware of the Santa Cruz Regional 9-1-1 resources.
- According to respondents, the two most important things the City can do to help residents and businesses be more prepared for a disaster are: 1) Provide training and education to residents and business owners on how they can reduce future damage, and 2) Strengthen the City's infrastructure.

**1.8 PUBLIC REVIEW DRAFT**

On July 27 2012 the Draft Capitola Local Hazard Mitigation Plan was made available to the public and interested stakeholders for a 30-day public review via the City's website and placement of hard copies of the plan at the Planning Counter and City Library.

# Chapter Two – Community Profile

## 2.1 PHYSICAL SETTING

Capitola is a small coastal community in Santa Cruz County, encompassing approximately two square miles. The city is located north of the Monterey Bay shoreline, south of Highway 1, east of the City of Santa Cruz, and west of the unincorporated towns of Soquel and Aptos. Exhibit 1 - Regional Vicinity Map, depicts Capitola's regional location. Capitola has a temperate Mediterranean climate and distinct landforms influenced by the San Andreas Fault system. Figure 1 is a historic photo of Capitola viewed from Soquel Creek.

The City of Capitola is a popular tourist destination due to its beaches, historic charm, visitor amenities, and scenic location. Capitola has a population of approximately 10,000 residents; however, the number of tourists visiting the City on a given day can be more than three times this number.

## 2.2 HISTORY

Capitola has always been a popular tourist and resort area. Between 1869 and 1883, "Camp Capitola" was primarily a campground for families vacationing during the summer season. In 1883, German developer F.A. Hihn built a two-story hotel, a skating rink, and other tourist amenities. In addition, Hihn began subdividing some of the campground into lots and sold them for \$100 to \$300 each. Small vacation cottages and homes were gradually built on these lots in the subsequent years.

When Hihn died in 1913, his Capitola property interests were sold to H.A. Rispin, an oil millionaire. Rispin changed the resort's name from "Camp Capitola" to "Capitola by the Sea", and by 1920, Rispin owned the entire waterfront, the Capitola Hotel, resort concessions, and 30 acres along Soquel Creek. The decade between 1920 and 1930 saw an increase in construction in Capitola; however, the Depression during the early 1930s caused a significant reduction in the number of visitors, severely affecting the resort town's economy.

In 1949, the residents of Capitola were successful in their campaign to incorporate. The new city had a population of 2,000 residents. In the late

1960's and early 1970's, Capitola experienced a growth surge with the construction of the Capitola Mall along 41st Avenue. For several decades, Capitola Mall was the regional shopping destination in the County. New retail options countywide beginning in the 1990's meant less growth for Capitola's primary retail mall area.

Today, Capitola remains a popular tourist destination. Shops and restaurants are located throughout the Village while the beach areas offer a variety of opportunities for recreational activities. Throughout the years since Capitola was first developed a myriad of hazard events have occurred that have impacted the City's residents,



Figure 1 – The Esplanade (ca. 1910)

businesses, and infrastructure. Appendix D – Timeline of Capitola Natural Hazard Events provides a chronology of the natural hazard events that have affected the City, which includes dates and times (where available), pictures, and background information regarding the event.

### 2.3 COMMUNITY PROFILE

The City of Capitola has a population of approximately 10,000 residents within an area of approximately two square miles. Tables 2 through 4 provide an overview of the City's population data, ethnicity, and education levels based on the recently completed 2010 Census.

**Table 2: Capitola Population Data**

<b>Population</b>	
Total Population	9,918
Males	4,721
Females	5,197
Median Resident Age	41.9
Median Household Income	\$ 52,389
Per Capita Income	\$ 33,698
Median House Value	\$ 531,900
Source <a href="http://factfinder.census.gov">http://factfinder.census.gov</a>	

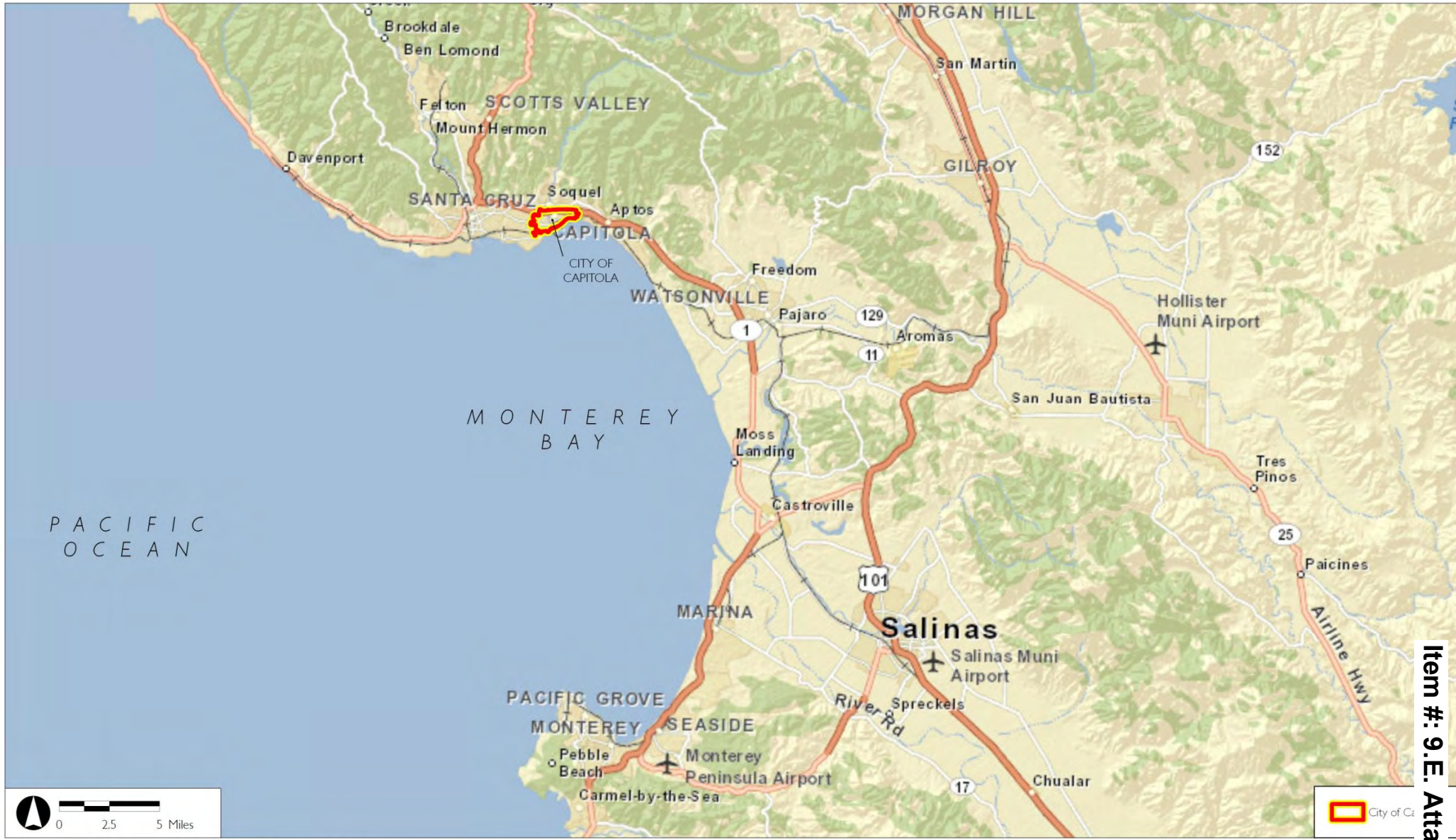
**Table 3: Capitola Ethnicity**

<b>Ethnicity</b>		
White (non-Hispanic)	7,075	(71.3%)
Black	109	(1.1%)
American Indian	30	(0.3%)
Asian	407	(4.1%)
Pacific Islander	8	(0.1%)
Other Race	21	(0.2%)
Two or More Races	311	(3.1%)
Hispanic or Latino	1,957	(19.7%)
Source <a href="http://factfinder.census.gov">http://factfinder.census.gov</a>		

**Table 4: Capitola Education Levels**

<b>Education Attainment (Age 25 and Over)</b>		
Less than 9 <sup>th</sup> Grade	153	(2.1%)
9 <sup>th</sup> to 12 <sup>th</sup> Grade	402	(5.5%)
High School Graduate	1,417	(19.4%)
Some College, No Degree	1,884	(25.8%)
Associate Degree	745	(10.2%)
Bachelors Degree	1,680	(23%)
Graduate or Professional Degree	1,023	(14%)
Source <a href="http://factfinder.census.gov">http://factfinder.census.gov</a>		

REGIONAL VICINITY MAP  
EXHIBIT 1



Source: City of Capitola, 2010; Santa Cruz County, 2010; ESRI, 2012.

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## 2.4 ECONOMIC TRENDS

According to Capitola's *General Plan Update, Existing Conditions White Paper #2, Economic and Market Conditions*, housing development has been significantly limited in the City due to the recent economic recession. Housing growth in the City and region will curtail for the next five to ten years due to higher costs of capital for developers and tightened lending standards for potential buyers. Due to these constraints, rental properties have become more promising than condominiums. Despite the anticipated slow pace of population growth and development and the City's limited ability to financially assist development, Capitola can still target areas for senior housing and/or mixed-use or multi-family buildings through regulatory incentives and actions.

Capitola does remain a strong retail location, with retail being the strongest commercial market in the City. Redevelopment of the 41<sup>st</sup> Avenue corridor would provide more opportunity for retailers. Currently the 41<sup>st</sup> Avenue corridor has suffered sales decline, with the worst declines in the automotive and comparison goods sales. Comparison goods can be defined as good that consumers buy at infrequent intervals and normally compare prices before buying, such as electronics and clothing. Capitola may still have difficulty attracting large-format retailers due to a lack of large spaces and available land. Mixed-use development may be worthwhile for long-term development along 41<sup>st</sup> Avenue.

Demand exists for lodging, including beachfront, boutique, and high-end hotels. However, the lack of development sites in Capitola makes it difficult to build large scale hotels. With a growing senior population, Capitola will also have a demand for medical office space in the future. It is unlikely, however, that there will be a demand for office spaces beyond small, local-serving businesses.

Capitola's high rate of workers commuting to jobs outside the City shows that Capitola largely serves as a bedroom community for people working outside the City. However, the City also features more jobs than employed residents, thus indicating a mismatch between the kinds of jobs offered versus the skill levels and occupations of residents.

## 2.5 EXISTING LAND USE

This information regarding existing land use was taken from the City of Capitola's *General Plan, Land Use Element*, and the *General Plan Update, Existing Conditions White Paper*. The General Plan is the principle policy document that regulates land use in Capitola. The Land Use Element of the General Plan contains a Land Use Map (refer to Exhibit 2 - Land Use Map), which divides Capitola into 18 land use designations. Table 5: Land Use Designations identifies the General Plan land use designations and description of the typical uses allowed within each designation. The City of Capitola General Plan addresses the use and development of private land, including residential and commercial areas.

Capitola's land use pattern is well established and is unlikely to change in the future. Single-family homes are the most common land use in Capitola, occupying 26 percent of the city. Residential land uses, as a group, occupy more than half of the City area. Retail is the most common commercial land use, occupying 11 percent of the city. A relatively small percentage of Capitola is occupied by office, industrial and mixed uses (1 percent each). A relatively large percentage of the city (14 percent) is occupied by open space and recreational land uses, and approximately 4 percent of City land is vacant.

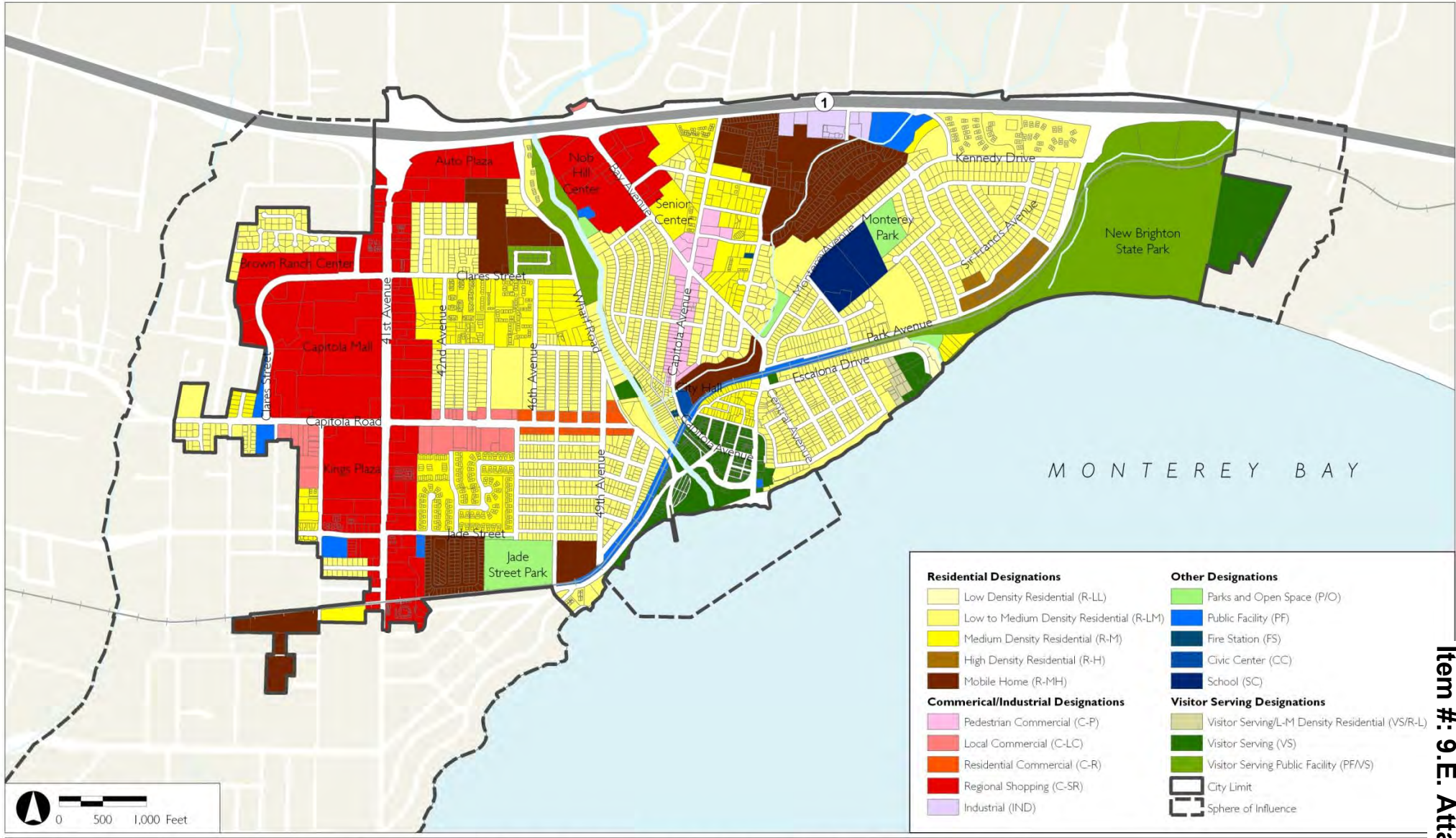
Using these land use designations, the City of Capitola has some capability to reduce risks to lives and property from natural and man-caused hazards. For example, open space land use can be designated in areas of hazard risk to prevent damage to developed property. Similarly, understanding where residential and commercial land uses are in relation to hazard risk is a key component to implementing mitigation strategies.

**Table 5: Land Use Designations**

	Land Use Designation	Description
<b>RESIDENTIAL</b>	Low Density Residential (R-LL)	Allows residential uses up 2 units per acre.
	Low to Medium Density Residential (R-LM)	Allows residential uses at a density of 5 to 10 units per acre. Most single-family tract developments are classified as R-LM.
	Medium Density Residential (R-M)	Allows higher density residential development of 10-15 units per acre.
	Medium to High Density Residential (R-MH)	Allows higher density residential development of 10-20 units per acre.
	High Density Residential (R-H)	Provides areas for mobile home parks at a density of up to 20 units per acre.
<b>COMMERCIAL</b>	Pedestrian Commercial (C-P)	Applies to properties along Capitola Avenue from Bay Avenue to the Village. The General Plan is silent on permitted uses and the purpose of this designation.
	Local Commercial (C-LC)	Allows for commercial areas that serve local neighborhoods.
	Residential Commercial (C-R)	Allows for a mixture of commercial and residential land uses along Capitola Road from 45 <sup>th</sup> Avenue to Wharf Road.
	Regional Shopping (C-SR)	Allows for large-scale shopping areas that provide goods and services to the regional population.
	Industrial (IND)	Allows for industrial land uses.
<b>VISITOR SERVING DESIGNATION</b>	Visitor Serving/L-M Density Residential (VS/R-LM)	Allows for visitor-serving residential land uses at a density of 5 to 10 units per acre.
	Visitor Serving (VS)	Allows for visitor-serving land uses and activities.
	Visitor Serving Public Facility (PF/VS)	Allows for visitor-serving public facilities and open space.
<b>OTHER DESIGNATIONS</b>	Parks and Open Space (P/OS)	Applies to open space lands whose primary purpose is recreation.
	Public Facilities (PF)	Applies to areas for public utility facilities.
	Fire Station (FS)	Applies to the Capitola Fire Station property
	Civic Center (CC)	Applies to Capitola Civic Center property.
	School (SC)	Applies to areas for education facilities.

Source: City of Capitola General Plan, 1989

LAND USE MAP  
EXHIBIT 2



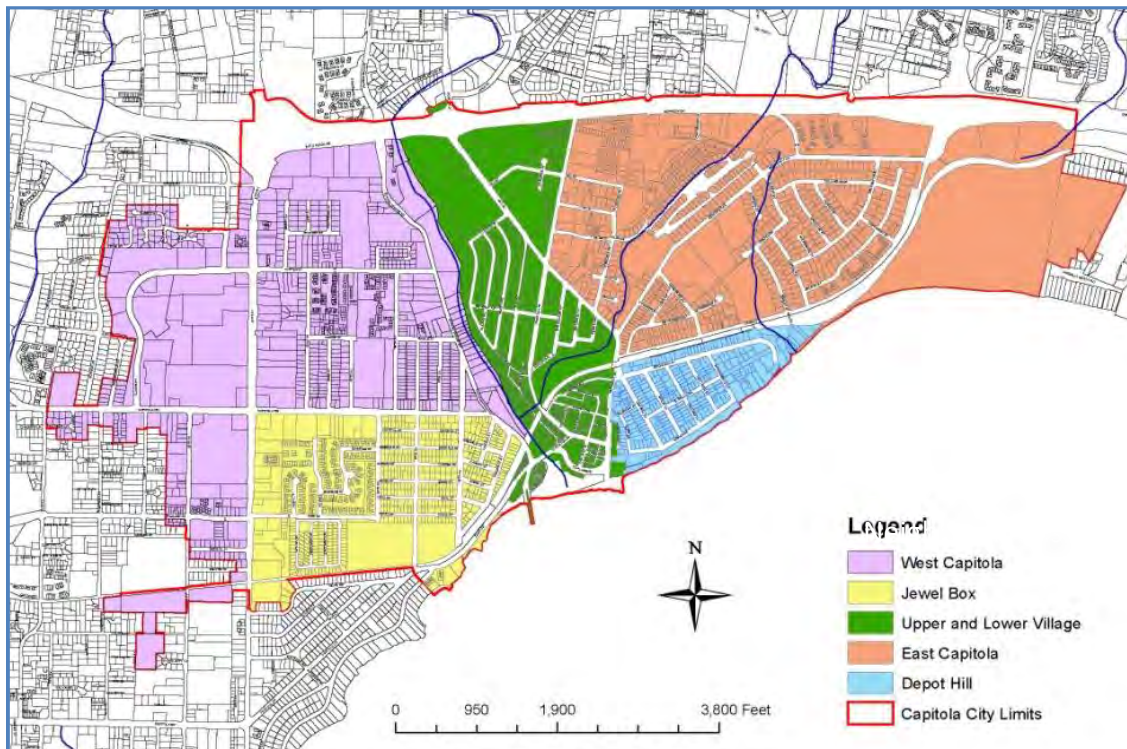
Source: Design, Community & Environment. "General Plan Update Existing Conditions White Paper #1." Figure 4, page 9. Available at <[http://www.plancapitola.com/PDF/White\\_Paper\\_One.pdf](http://www.plancapitola.com/PDF/White_Paper_One.pdf)>.

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## 2.6 RESIDENTIAL NEIGHBORHOODS

As part of the General Plan Update, the City is comprised of several neighborhoods with unique geographic locations, land use characteristics, and defining features. These neighborhoods are described below and depicted in Exhibit 3 - Capitola Neighborhoods.

**EXHIBIT 3: Capitola Neighborhoods**



### *West Capitola*

The West Capitola neighborhood is located on the west side of Soquel Creek north and west of the Jewel Box neighborhood. This area is predominantly composed of an assortment of detached single-family homes, multiple-family housing, mobile home parks, the Rispin Mansion site, the Shadowbrook property, and the Capitola Library. In addition a large portion of this Neighborhood is occupied by the 41st Avenue/Capitola Mall commercial district, which contains a number of region-serving shopping centers, including the Capitola Mall and Kings Plaza shopping center as well as several other commercial, retail, office, and service related establishments.

### *Jewel Box*

The Jewel Box neighborhood is located west of Soquel Creek and south of the West Capitola neighborhood. Existing land uses within this neighborhood include single-family detached homes, multiple-family housing, mobile home parks, the Jade Street Park and Community Center, and a few non-residential uses along Capitola Road.

### *Upper and Lower Village*

The Upper and Lower Village neighborhood is a mixture of residential, commercial, and mixed uses located east of Soquel Creek. Considered the core of the City, this neighborhood contains the Capitola Village mixed-use district, which contains a mixture of visitor-serving commercial establishments, public amenities, and residential uses,

including transient residential uses such as vacation rentals and hotels and motels. This neighborhood also contains single family residential uses as well as commercial uses located along Bay Avenue, such as Nob Hill shopping center, a large vacant parcel north of the Nob Hill shopping center, the La Capitola Plaza shopping center, and Gayle's Bakery.

### *East Capitola*

The East Capitola neighborhood primarily contains a mixture of detached single-family homes, multiple-family apartment complexes, and mobile home parks, New Brighton Middle School, Monterey and Cortez Parks; small scale commercial uses, and light industrial and service establishments along Kennedy Drive.

### *Depot Hill*

The Depot Hill neighborhood is a triangular shaped area bounded by Park Avenue to the north, Monterey Avenue to the west and the Pacific Ocean to the south and east. Characterized primarily by older, potentially historic detached single-family homes, as well as, The Inn at Depot Hill, El Salto Resort, and Monarch Cove Inn are located in the Depot Hill neighborhood.

## **2.7 DEVELOPMENT TRENDS**

The most prevalent land uses in the community are commercial, residential, and open space areas. Table 6 identifies major development projects in Capitola from 2005 to 2010. These projects are divided into four categories based on their status: 1) completed projects, 2) projects under construction, 3) projects approved by the City but not yet under construction, and 4) projects proposed but not yet approved.

## **2.8 FUTURE DEVELOPMENT**

The City of Capitola is considered built-out, with very little vacant land remaining for new development. The majority of future development in the City is likely to consist of extensive remodeling of existing structures or redevelopment of properties requiring demolition and replacement of existing buildings. The City is currently in the planning stages of considering re-use/ redevelopment of the Pacific Cove mobile home park, which was closed due to damage from the March 2011 floods. The Capitola City Hall is located next to the Pacific Cove Mobile Home Park, and houses all City Administrative Departments as well as the Police Department. Across the street from City Hall is Fire Station No. 4. Both City Hall and the Fire Station experienced flooding during the 2011 rain events, which impacted the City's ability to respond to this emergency. One major goal of this potential redevelopment project is to relocate the Police and Fire Departments (local first responders) out of their current location (within the FEMA 100 year flood plain) to better improve first responder capabilities.

**Table 6: Major Development Projects in Capitola (2005-2010)**

Project Name	Address	Status	Description
Capitola Beach Villas	1066 41st Avenue	Completed	55 new residential condo units and 3,000 square feet of retail commercial condo space.
Whole Foods Market	1710 41st Avenue	Completed	Extensive interior and exterior remodel of the former Ralph's supermarket to establish a new Whole Foods Market.
Goodwill	1550 41st Avenue	Completed	Extensive remodel of an existing 17,000 square foot shopping center to expand a Goodwill store and establish a cosmetology school.
Longs Drugs	1750 41st Avenue	Completed	Extensive remodel of the Longs Drugs store (now CVS).
Bay Avenue Senior Apartments	750 Bay Avenue	Completed	Major remodel of an affordable senior housing apartment complex, increasing the number of units from 96 to 109 units.
Heritage Lane	3606-3610 Capitola Road	Completed	12 new single-family homes and 4 secondary dwelling units.
Marriot Fairfield Inn and Suites	1255 41st Avenue	Completed	84-unit hotel with 31,582 square feet of associated facilities. Opened July 2011.
Target Store	1825 41st Avenue	Approved, Construction Pending	Interior and exterior remodel of the former Gottschalk's building to establish a new Target store. To be completed September 2012.
Pearson Court	1911 42nd Avenue	Approved, Construction Pending	10 single-family homes. Construction to begin in 2011.
Capitola Village Hotel	120 Monterey Avenue	Proposed	Proposal for a new hotel and associated facilities in Capitola Village.

**Source: General Plan Update, Existing Conditions White Paper #1, City of Capitola**

Note: The project status was updated as appropriate.

## 2.9 CRITICAL FACILITIES

City staff and the Technical Advisory Committee identified twenty-seven critical facilities at twenty-five mapped locations for incorporation in the hazard vulnerability/risk analysis. These facilities include a police station, fire station, City owned properties, shelters, and other facilities that provide important services to the community. Damage to these facilities caused by a hazard event has the potential to impair response and recovery from the event and may lead to disruption of services. This list includes critical facilities owned and operated by City or local utilities and districts and does not include state or federal facilities, which are outside local control.

The HMP Team identified replacement and contents values for a majority of the facilities. These represent the total potential loss value for each facility. If a facility is completely destroyed in a hazard event, the replacement and contents values indicate the cost to replace the facility. Most likely the cost to repair a damaged facility will be less than the replacement value. While the replacement and contents values are used throughout this plan to estimate potential losses, it is noted that the actual cost to recover from a hazard event will depend on the type and magnitude of the event.

It should be noted that the Soquel Creek Water District Treatment Plant on Monterey Avenue is currently non-operational and there are no chemicals on site. Also, the Soquel Creek Water District MacGregor Booster Pumping Station is currently under construction. Table 7: *Capitola Critical Facilities List* provides a complete listing of the

critical facilities examined within the Hazard Mitigation Plan and Exhibit 4 – Capitola Critical Facilities identifies their location.

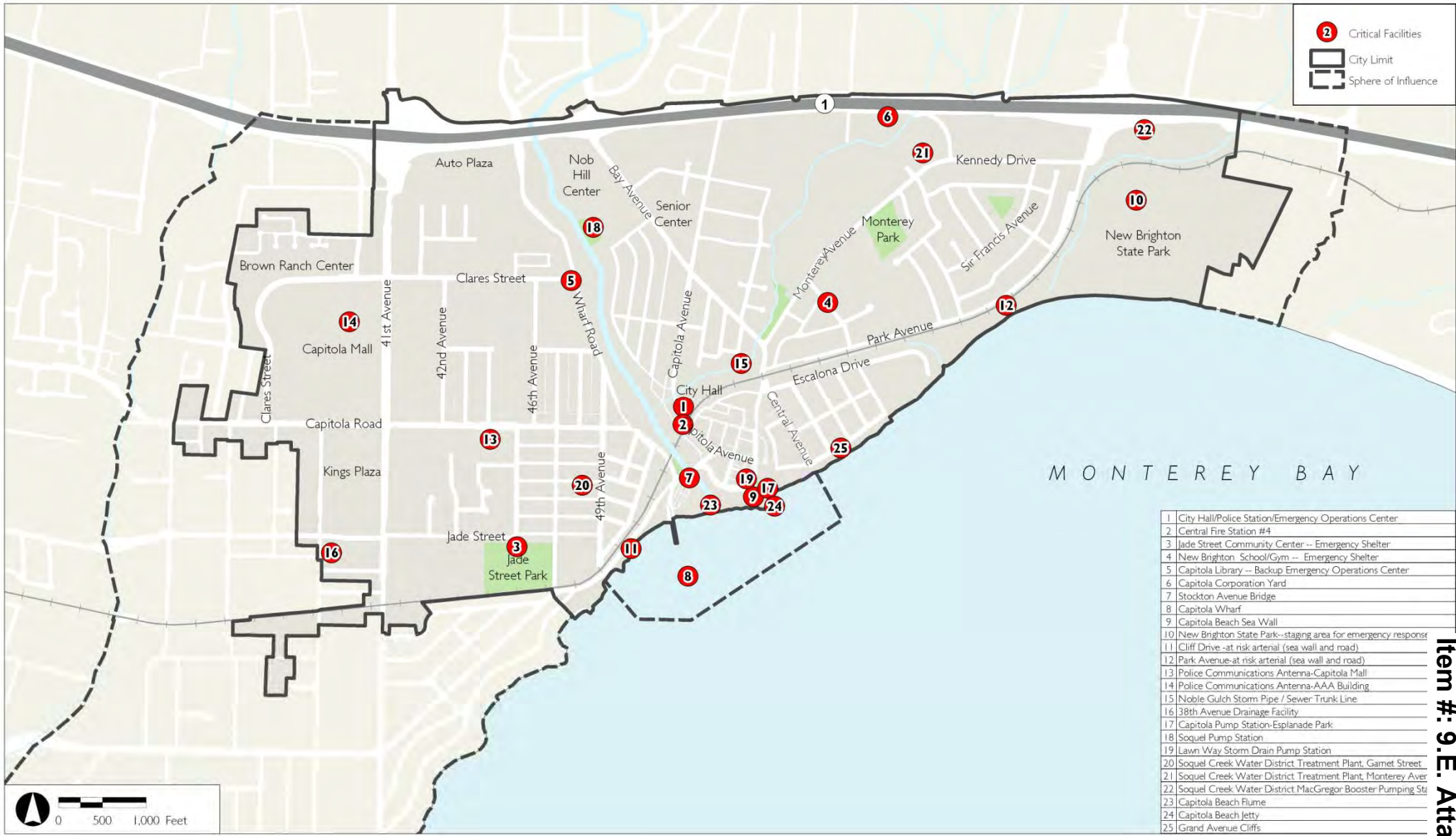
**Table 7: Capitola Critical Facilities List**

Map #	Facility	Notes	Replacement Value	Contents Value
1	City Hall/Emergency Operations Center	Steep hillside on southern portion of site	\$4,000,000	\$750,000
1	Capitola Police Station	Steep hillside on southern portion of site	\$2,000,000	\$750,000
2	Central Fire Station #4	Steep slope across Capitola Road	\$1,000,000	\$100,000
3	Jade Street Community Center -- Emergency Shelter		\$2,000,000	\$200,000
4	New Brighton Gym -- Emergency Shelter		\$2,500,000	\$75,000
4	New Brighton School -- Back-up Emergency Shelter		\$4,000,000	\$700,000
5	Capitola Library -- Backup Emergency Operations Center	Wharf Road in vicinity of Library located adjacent to steep slope hazard area	\$2,000,000	\$700,000
6	Capitola Corporation Yard	Creek to the east has steep slopes, no risk	\$1,000,000	\$500,000
7	Stockton Avenue Bridge	Mid-span piers catch mud and debris	\$7,000,000	N/A
8	Capitola Wharf		\$7,000,000	\$300,000
9	Capitola Beach Sea Wall		\$3,000,000	N/A
10	New Brighton State Park--staging area for emergency response		N/A	N/A
11	Cliff Drive -at risk arterial (sea wall and road)		\$5,000,000	N/A
12	Park Avenue-at risk arterial (sea wall and road)		\$3,000,000	N/A
13	Police Communications Antenna-Capitola Mall		\$100,000	N/A
14	Police Communications Antenna-AAA Building		\$100,000	N/A
15	Noble Gulch Storm Pipe		\$5,500,000	N/A
16	38th Avenue Drainage Facility		\$1,000,000	\$300,000
17	Capitola Pump Station-Esplanade Park		\$2,000,000	\$800,000
18	Soquel Pump Station		\$3,000,000	\$1,700,000
19	Lawn Way Storm Drain Pump Station		\$200,000	N/A
20	Soquel Creek Water District Treatment Plant, Garnet Street		\$400,000	\$700,000
21	Soquel Creek Water District Treatment Plant, Monterey Avenue	Creek channel east of facility has steep slopes	\$10,000	\$70,000
22	Soquel Creek Water District MacGregor Booster Pumping Station		To Be Constructed	N/A
23	Capitola Beach Flume		\$2,000,000	N/A
24	Capitola Beach Jetty		\$3,000,000	N/A
25	Grand Avenue Cliffs		N/A	N/A
<b>Total Potential Losses</b>			<b>\$60,810,000</b>	<b>\$7,645,000</b>



**CAPITOLA CRITICAL FACILITIES**

EXHIBIT 4



Source: City of Capitola, List of Critical Facilities, May 10, 2012.

Item #: 9.E. Attach 1.pdf

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# Chapter Three – Hazards Assessment

This section of the Capitola Hazard Mitigation Plan provides a detailed discussion of the potential hazards that may affect the City as well as the potential risk/ vulnerability to City facilities.

## 3.1 HAZARD IDENTIFICATION AND PRIORITIZATION

### Hazard Identification

Using the current Santa Cruz County Hazard Mitigation Plan (adopted on September 14, 2010) and FEMA hazard mitigation planning guidance as referenced, the Technical Advisory Committee discussed a comprehensive list of natural hazards during the first milestone meeting on December 8, 2011. This discussion resulted in identification of the hazards which pose a potential risk to the City of Capitola. Table 8: 2011 City of Capitola Hazard Identification summarizes the TAC's discussion for each of the natural hazards and shows which were identified for inclusion in this Plan. Hazards that have been excluded from further consideration are shaded gray within Table 8.

**Table 8: 2011 City of Capitola Hazard Identification**

List of Hazards	Identified in 2010 County Plan	Include in City HMP	Discussion Summary
Agricultural Pests		No	Not enough agriculture in the City to warrant a concern.
Avalanche		No	Not Applicable
Coastal Erosion / Bluff Failure	X	Yes	This is an event based concern as well as a long term concern, specifically because storm/sewer utility pipelines run through the bluffs.
Coastal Storm	X	Yes	Concerns include high surf, high tide, storm related coastal flooding from ocean and fluvial (Soquel Creek), wharf protection
Dam Failure	X	No	There are no levees or dams that failure would impact the City.
Drought	X	Yes	The City receives about 90% of its water supply from Soquel Creek Water District (SqCWD) while the remaining 10% is supplied by the City of Santa Cruz Water Department (SCWD). Both agencies are solely dependent upon local water supplies as no water is imported from outside of the area. SqCWD obtains 100% of its supply from groundwater sources, whereas the SCWD is primarily supplied by surface water sources. Both water providers are susceptible to drought and water supply shortages. While groundwater sources are generally less susceptible to seasonal drought than surface water sources, coastal groundwater levels in the area are below elevations that protect the local groundwater basin from seawater intrusion, creating a state of overdraft that is exacerbated by drought conditions.
Earthquake (Liquefaction)	X (Liquefaction)	Yes	Capitola is located in an area susceptible to earthquake ground shaking and liquefaction.

Table 8: 2011 City of Capitola Hazard Identification

List of Hazards	Identified in 2010 County Plan	Include in City HMP	Discussion Summary
Expansive soils	X	No	Discussion during TAC Meeting #1 indicated some concern regarding expansive soils along Soquel Creek and other parts of the City. Mapping conducted after the meeting indicated that expansive soils are identified within the City, however no issues as a result of these soils have been reported.
Extreme Temperature		No	During the 2006 heat wave, the City of Capitola did not experience any problems. Extreme cold in the past has caused a few pipe breaks but no significant problems.
Flood	X (Coastal Storms)	Yes	Flooding within Capitola occurs as a result of surface water runoff from the mountainous areas north and east of the City, changes in tidal elevations (high tide), local coastal storms, and surges from distant storms offshore. These sources can occur separately or in conjunction with one another increasing the magnitude of the effects.
Geological Hazards		N/A	This category may be used to group bluff erosion, earthquake, landslides, etc in the hazard profiles.
Hailstorm		No	There has been no significant damage from previous storms. The TAC noted that thunderstorms with lightning could damage antennas used for communication, but agreed it was not a significant risk.
Hazardous Materials Spills		Yes	The majority of properties within the City containing hazardous materials are located along 41 <sup>st</sup> Avenue. Additional concerns include Highway 1, railroad, oil spills, and the drinking water treatment facility in the Jewel Box area.
Hurricane		No	Not Applicable
Land Subsidence		No	Not Applicable
Landslide and Mudflow	X	Yes	Due to steep topography, there is a potential for landslides and mudflows to occur below Wharf Road and above Soquel Creek, which could impact the Stockton Avenue Bridge and Village.
Human Caused Hazards		No	Except for Hazardous Materials Spills, the TAC agreed the intent of this plan is to focus on natural hazard risk.
Severe Winter Storm		No	Not Applicable
Tornado		No	Tornados and water spouts are possible, but very rare. The TAC noted that a tornado occurrence could be devastating, but the probability does not warrant inclusion in this plan.
Tsunami	X	Yes	Due to its location along the coast, Capitola is susceptible to Tsunami inundation, which could reach as high as 30 feet depending on the location of the source. Evacuations within the City occurred as a result of the most recent tsunami event in March 2011; however no damage occurred within the City.

**Table 8: 2011 City of Capitola Hazard Identification**

List of Hazards	Identified in 2010 County Plan	Include in City HMP	Discussion Summary
Volcano		No	The City is not located within a region of active volcanism.
Wildfire	X	Yes	Concerns include: Wharf Road Corridor, New Brighton area, eucalyptus trees along the bluffs
Wind		No	Regular wind does not cause significant damage
Windstorm		Yes	During severe windstorms trees fall. Severe wind also exacerbates wildfires.
Sea Level Rise		Yes	The City is participating in a regional sea level rise study concurrent with development of this plan.
Climate Change		N/A	Climate change will be considered as an exacerbation factor for all of the identified hazards.

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### Hazard Prioritization

The Technical Advisory Committee used an Excel tool to prioritize the identified hazards by assigning each hazard a ranking based on probability of occurrence and potential impact. These rankings were assigned based on group discussion, knowledge of past occurrences, and familiarity with the City’s infrastructure vulnerabilities. This tool and the detailed results are presented in *Table 9: Capitola Hazard Ranking Worksheet*.

*Table 10: Capitola Hazard Ranking Worksheet Legend* provides additional detail regarding how the probability, affected area, and impact categories are weighted and how the total score is calculated for this ranking worksheet.

**Table 9: Capitola Hazard Ranking Worksheet**

Hazard Type	Probability	Impact			Total Score	Hazard Planning Consideration
		Affected Area	Primary Impact	Secondary Impacts		
Earthquake (and Liquefaction)	4	4	4	4	64.00	Significant
Flood (riverine and coastal, including storm surge)	4	4	4	4	64.00	Significant
Sea Level Rise	4	1	4	4	44.80	Significant
Drought	3	4	3	3	40.80	Moderate
Windstorm	3	4	3	2	37.80	Moderate
Coastal Erosion / Bluff Failure	4	1	3	2	31.20	Moderate
Tsunami	2	2	4	4	25.60	Moderate
Hazardous Materials	2	3	3	3	24.00	Moderate
Wildfire	2	2	2	2	16.00	Moderate
Landslide and Mudflow	2	1	2	2	12.80	Moderate
Expansive soils	1	2	2	2	8.00	Limited

**Table 10: Capitola Hazard Ranking Worksheet Legend**

<b>Probability</b>		Importance	2.0	<b>Secondary Impacts</b>		Importance	0.5
<i>Based on estimated likelihood of occurrence from historical data</i>				<i>Based on estimated secondary impacts to community at large</i>			
<u>Probability</u>		<u>Score</u>		<u>Impact</u>		<u>Score</u>	
Unlikely		1		Negligible - no loss of function, downtime, and/or evacuations		1	
Somewhat Likely		2		Limited - minimal loss of function, downtime, and/or evacuations		2	
Likely		3		Moderate - some loss of function, downtime, and/or evacuations		3	
Highly Likely		4		High - major loss of function, downtime, and/or evacuations		4	
<b>Affected Area</b>		Importance	0.8	<b>Total Score = Probability x Impact, where:</b>			
<i>Based on size of geographical area of community affected by hazard</i>				Probability = (Probability Score x Importance)			
<u>Affected Area</u>		<u>Score</u>		Impact = (Affected Area + Primary Impact + Secondary Impacts), where:			
Isolated		1		Affected Area = Affected Area Score x Importance			
Small		2		Primary Impact = Primary Impact Score x Importance			
Medium		3		Secondary Impacts = Secondary Impacts Score x Importance			
Large		4					
<b>Primary Impact</b>		Importance	0.7	<b>Hazard Planning Consideration</b>			
<i>Based on percentage of damage to typical facility in community</i>				Total Score	(Range)	Distribution	Hazard Level
<u>Impact</u>		<u>Score</u>		0.0	12.0	1	Limited
Negligible - less than 10% damage		1		12.1	42.0	7	Moderate
Limited - between 10% and 25% damage		2		42.1	64.0	3	Significant
Critical - between 25% and 50% damage		3					
Catastrophic - more than 50% damage		4					
<p>The probability of each hazard is determined by assigning a level, from unlikely to highly likely, based on the likelihood of occurrence from historical data. The total impact value includes the affected area, primary impact and secondary impact levels of each hazard. Each level's score is reflected in the matrix. The total score for each hazard is the probability score multiplied by its importance factor times the sum of the impact level scores multiplied by their importance factors. Based on this total score, the hazards are separated into three categories based on the hazard level they pose to the communities: Significant, Moderate, and Limited.</p>							



Based on this ranking exercise with the Technical Advisory Committee and follow up discussion with City staff, the City of Capitola confirmed the identified hazards and corresponding planning considerations for this Hazard Mitigation Plan as those listed in *Table 11: Capitola Identified Hazards and Planning Considerations*.

**Table 11: Capitola Identified Hazards and Planning Considerations**

Identified Hazard	Hazard Planning Consideration
Earthquake (and Liquefaction)	Significant
Coastal Storm / Flooding	Significant
Drought	Moderate
Windstorm	Moderate
Coastal Erosion / Bluff Failure	Moderate
Tsunami	Moderate
Hazardous Materials	Moderate
Wildfire	Moderate
Landslide and Mudflow	Moderate

### 3.2 CLIMATE CHANGE CONSIDERATIONS

It should be noted that Sea Level Rise was originally identified as an explicit hazard by the Technical Advisory Committee, however through follow up discussion with the HMP Team, it was determined that sea level rise is an effect associated with climate change. Since climate change also can affect other hazards within the City, the HMP Team determined that it would be best to discuss climate change considerations throughout all applicable hazard profiles.

In addition, a sea level rise analysis is currently being conducted in the Monterey Bay area. This analysis will provide more detailed information regarding the potential sea level rise impacts that could affect the Capitola coastline. Output from the analysis will be at a more detailed scale allowing the City to better plan and prepare for potential impacts associated with sea level rise. This analysis will also provide additional information on run up/ overtopping impacts associated with seawalls and other coastal flood defenses.

Climate change is a serious issue, as it affects communities in a variety of ways. For the City of Capitola, climate change can result in a multitude of impacts and potentially exacerbate existing natural and human caused hazards or create new hazards. To address potential climate change impacts, the City of Capitola has identified climate change considerations within each hazard profile in this Plan. These considerations deal with issues such as sea level rise, changing weather patterns and precipitation regimes, and other hazards that could be exacerbated by these changing conditions. Within each hazard profile, the City has provided a discussion of some of the potential impacts that could be a result of climate change. This discussion is intended to supplement, but not replace, the Probability of Future Occurrence discussion.

### 3.3 VULNERABILITY/RISK ASSESSMENT METHODOLOGY<sup>1</sup>

The critical facilities listed in the section above were mapped in GIS and overlaid with mapped hazard areas to determine which assets are located within each hazard area. Hazard area and critical facility overlays were

<sup>1</sup> All GIS data used in the vulnerability analyses profiled in Section 3.3 was provided by the City of Capitola, County of Santa Cruz or applicable State or Federal Agency.

conducted for flood, beach erosion, cliff erosion, liquefaction, landslide/mudslide (slope), and tsunami. For hazardous materials, it was determined which critical assets are located within 500 and 1,000 feet of a hazardous materials site.

Hazard and critical facility overlays were not conducted for wildfire, windstorm, drought, and earthquake. Per the map located in the Location section of the Wildfire profile, there are no fire hazard areas located in the City of Capitola based on the available fire mapping for Santa Cruz County. Windstorms affect the entire City and therefore all facilities listed in the critical facility inventory could be potentially susceptible to damage from a windstorm. Drought does not inflict physical damage on Capitola's critical assets; however, residents could be impacted by the water district that provides service, if drought impacts their water supply availability. 90% of the City's water supply is provided by the Soquel Creek Water District, which, although supplied by groundwater and less susceptible to seasonal drought, is susceptible to overdraft. The remaining 10% of the water supply is provided by the City of Santa Cruz Water Department, which is supplied by surface water and is susceptible to seasonal drought. There are no fault zones that fall within the City of Capitola and therefore an overlay was not conducted for earthquake.

Each hazard profile in the section below includes a Vulnerability/Risk Assessment section that presents the results of the methodology described above. Replacement and contents values for the facilities that fall within the hazard areas are tallied in each vulnerability table to estimate the total potential losses to each hazard. It should be noted that the actual losses will depend on the type and extent of the hazard event.

A comprehensive list of facilities and the hazard areas they fall within can be found in Appendix A – Critical Facilities Inventory.

### **3.4 HAZARD PROFILES**

The following are profiles of the hazards identified for the City of Capitola. The profiles include a vulnerability analysis and risk assessment using the methodologies described in the Vulnerability/ Risk Assessment Section above.

#### ***3.4.1 Geologic Hazards (Earthquake and Liquefaction)***

##### **Identifying Earthquake and Liquefaction Hazards**

An earthquake is a sudden release of energy in the earth's crust. Caused by movement along fault lines, earthquakes vary in size and severity. The focus of an earthquake is found at the first point of movement along the fault line (which may be beneath the surface), and the epicenter is the corresponding point above the focus at the earth's surface.

Damage from an earthquake varies with the local geological conditions, the quality of construction, the energy released by the earthquake, the distance from the earthquake's focus, and the type of faulting that generates the earthquake. Earthquake related hazards include primary impacts (fault rupture and ground shaking) and secondary impacts (liquefaction). This hazard profile will discuss ground shaking and liquefaction, since these are the two most likely impacts anticipated as a result of an earthquake.

Ground Shaking: Ground motion/shaking is the primary cause of damage and injury during earthquakes and can result in surface rupture, liquefaction, landslides, lateral spreading, differential settlement, tsunamis, building and infrastructure failure, which could lead to fire and other collateral damage. Typically, areas underlain by thick, water-saturated, unconsolidated material will experience greater shaking motion than areas underlain by firm

bedrock, but, in some cases, topographic relief may intensify shaking along ridge tops, where landslides may develop.

Fires and structural failure are the most hazardous results of ground shaking. Most earthquake-induced fires start because of ruptured power lines and gas lines or electrically powered stoves and equipment. Structural failure is generally a result of age, quality, and type of building construction.

**Liquefaction:** Liquefaction is the transformation of loose, water-saturated granular materials (such as sand and silt) from a solid to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures.

### **Profiling Earthquake and Liquefaction Hazards**

#### **Location**

Capitola is located in one of the most seismically active areas of the country. Significant earthquakes occur along well-defined, active fault zones that trend northwesterly. The regional faults of significance potentially affecting Capitola include the San Andreas, the Zayante, and the Palo Colorado-San Gregorio faults. The most probable seismic hazards to Capitola are from the San Andreas Fault (in the Santa Cruz Mountains) and, further south, the Palo Colorado-San Gregorio fault see Exhibit 5 - Active Fault Zones.

The main trace of the San Andreas Fault is approximately nine miles northeast of Capitola. One of the largest earthquakes in the Santa Cruz area occurred on October 17, 1989 due to movement on this fault (Loma Prieta Earthquake) and measured 7.1 on the Richter scale.

The Zayante fault is located approximately five miles northeast of Capitola, and the Palo Colorado-San Gregorio is located 14 miles southwest of Capitola. The California Geologic Survey considers the Zayante fault active, although it has not caused any significant earthquakes historically, only some aftershocks after the Loma Prieta earthquake. The Palo Colorado-San Gregorio fault is not well understood, but is considered potentially active with an estimated maximum credible magnitude of 7.7 and a recurrence level of 800+ years (City of Capitola General Plan White Paper #4 Environmental Resources & Hazards, 2011).

Liquefaction can also occur in Capitola. Exhibit 6 - Liquefaction Potential shows the liquefaction potential in Capitola. Significant portions of Capitola have either High or Very High potential for liquefaction. These areas are generally located along the alignment of drainage courses like Soquel Creek, Noble Gulch and Tannery Gulch. More specifically, areas determined to have a Very High potential include the northern end of Bay Avenue, including Highway 1/Bay Avenue/Porter Avenue interchange, and a large portion of Capitola Village. Areas determined to have a High potential include the residential and commercial areas along the southern portion of Bay Avenue and along Capitola Avenue.

#### **Extent of Earthquake**

The size and magnitude (M) of an earthquake is measured in various ways. The Richter scale determines the amount of ground displacement or shaking that occurs near the epicenter. This scale is shown in *Table 12: Richter Scale*.

Another scale, the Moment Magnitude scale, measures the magnitude of medium and large sized earthquakes by characterizing the amount of energy released by the earthquake. The magnitude is based on the seismic moment of the earthquake, which is equal to the rigidity of the Earth multiplied by the average amount of slip on the fault and the size of the area that slipped. (USGS, Glossary of Terms on Earthquake Maps) The Modified Mercalli

Intensity Scale measures ground shaking intensity in terms of perception and damage and takes into account localized earthquake effects. This scale is shown in *Table 13: Modified Mercalli Intensity Scale for Earthquakes*.

**Table 12: Richter Scale**

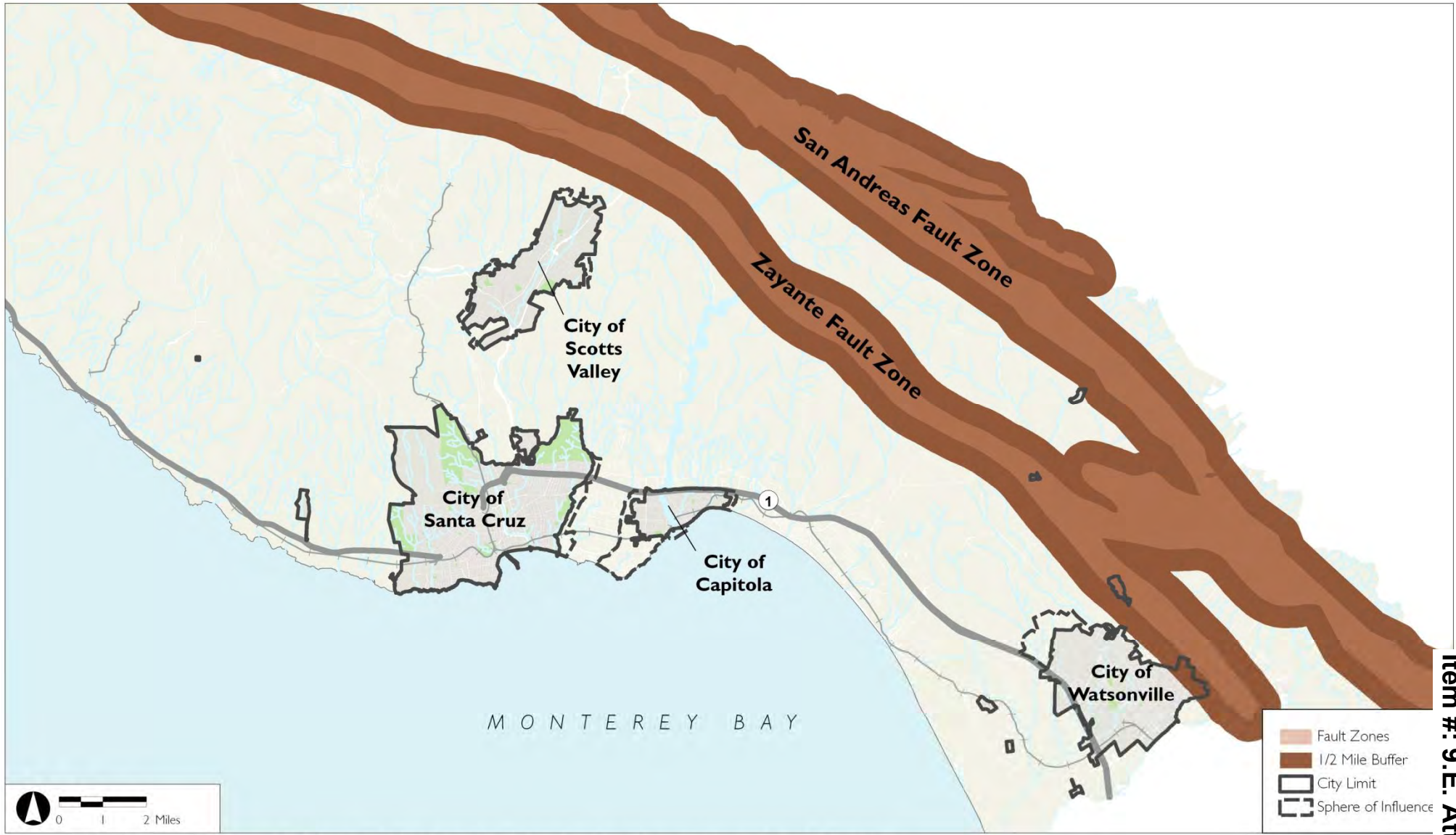
Richter Magnitudes (M)	Earthquake Effects
Less than 3.5	Generally not felt, but recorded.
3.5-5.4	Often felt, but rarely causes damage.
Under 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 kilometers across where people live.
7.0-7.9	Major earthquake. Can cause serious damage over larger areas.
8 or greater	Great earthquake. Can cause serious damage in areas several hundred kilometers across.

**Table 13: Modified Mercalli Intensity Scale for Earthquakes**

Scale	Intensity	Earthquake Effects	Corresponding Richter Scale Magnitude
I	Instrumental	Detected only on seismographs	
II	Feeble	Some people feel it	<4.2
III	Slight	Felt by people resting; like a truck rumbling by	
IV	Moderate	Felt by people walking	
V	Slightly Strong	Sleepers awake; church bells ring	<4.8
VI	Strong	Trees sway; suspended objects swing; objects fall off shelves	<5.4
VII	Very Strong	Mild Alarm; walls crack; plaster falls	<6.1
VIII	Destructive	Moving cars uncontrollable; masonry fractures; poorly constructed buildings damaged	
IX	Ruinous	Some houses collapse; ground cracks; pipes break open	<6.9
X	Disastrous	Ground cracks profusely; many buildings destroyed; liquefaction and landslides widespread	<7.3
XI	Very Disastrous	Most buildings and bridges collapse; roads, railways, pipes and cables destroyed; general triggering of other hazards	<8.1
XII	Catastrophic	Total destruction; trees fall; ground rises and falls in waves	>8.1

Seismic historical records of Capitola show that earthquakes of 6.5 – 7.0 M occur periodically on the San Andreas Fault (City of Capitola General Plan White Paper #4 Environmental Resources & Hazards, 2011). The San Andreas Fault zone poses the most significant threat to Santa Cruz County and to the City of Capitola. Based on records from the 1906 San Francisco earthquake, it is estimated that the maximum credible earthquake likely to occur on the San Andreas Fault would equal 8.3 M on the Richter scale, which represents more than 30 times the energy released by the 1989 Loma Prieta Earthquake. Santa Cruz County was one of the hardest hit counties during that earthquake.

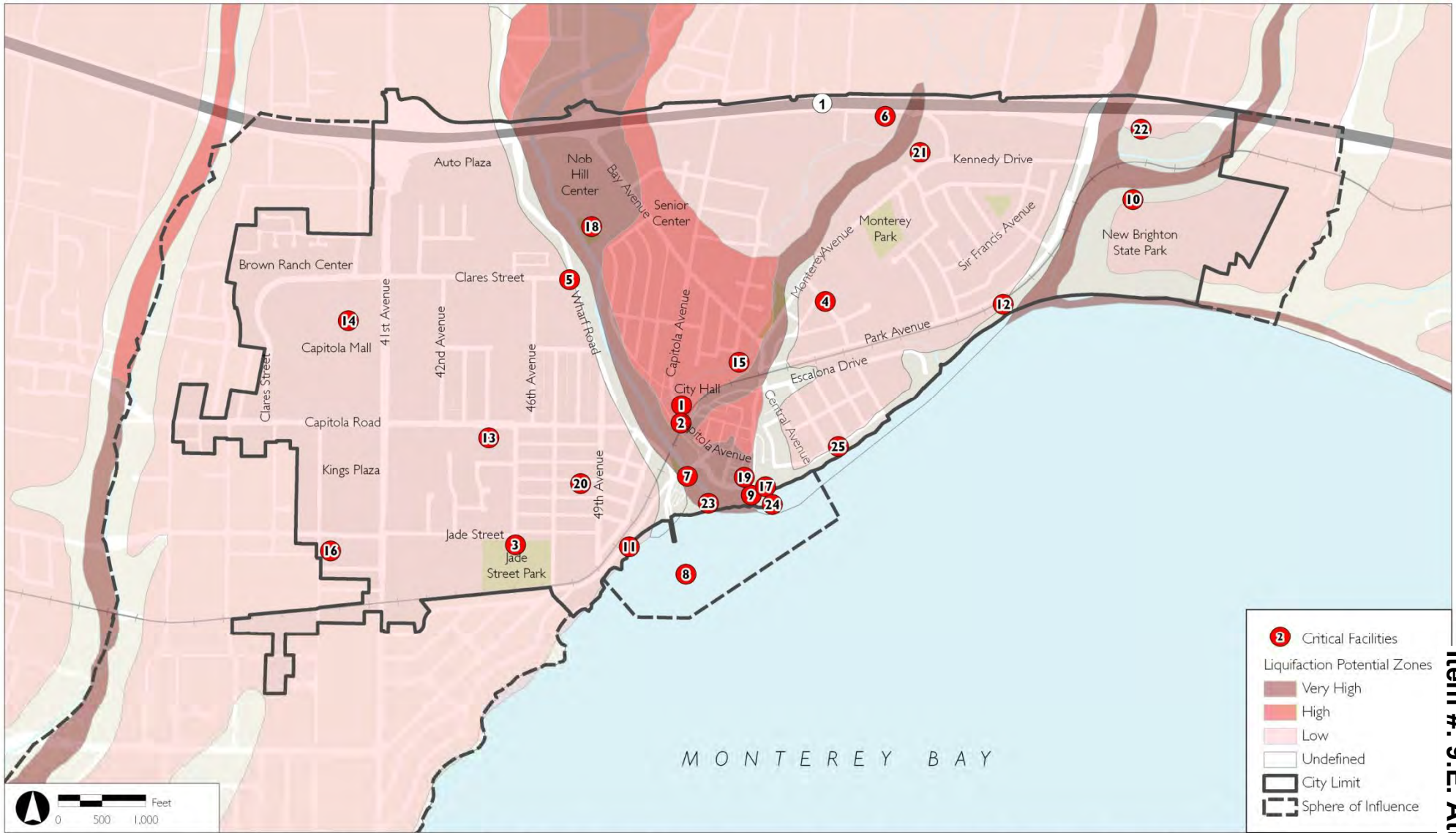
ACTIVE FAULT ZONES  
EXHIBIT 5



Source: City of Capitola, 2010; Santa Cruz County, 2010; Hazards. "Fault Zones." [shapefile]. (2012). Santa Cruz County Geographic Information System File Download Site. Available at <<http://sccftpmapp.co.santa-cruz.ca.us/File%20Download%20Site/Hazards/Shapefiles/Hazards.zip>>. Downloaded: February 1, 2012.

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LIQUEFACTION POTENTIAL  
EXHIBIT 6



Source: City of Capitola, 2010; Santa Cruz County, 2010; Hazards. "Liquefaction." [shapefile]. (2009) Available at <<http://sccftpmap.co.santa-cruz.ca.us/File%20Download%20Site/Hazards/Shapefiles/Hazards.zip>>. Downloaded: January 29, 2011.

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### Extent of Liquefaction

Areas within Capitola that have a High and Very High potential for liquefaction (as identified on Exhibit 6) would be the primary areas affected by liquefaction during an earthquake event. In addition, other areas within the City that experience shallow groundwater conditions (less than 50 feet beneath the ground surface [bgs]) may also be susceptible to liquefaction if loose unconsolidated materials are located beneath the surface within these areas.

### Past Occurrences - Earthquake

While Santa Cruz County has sustained numerous earthquakes throughout history, the two most destructive incidents were the 1906 San Francisco earthquake and the 1989 Loma Prieta earthquake. Table 14 Historical Earthquake Events summarizes historical records collected by the City of Capitola Historical Museum.

**Table 14: Historical Earthquake Events**

Date	Time	Impact/Property Damage
January 9, 1857		Three earthquakes struck the Santa Cruz vicinity in a series. The tower and a portion of the Santa Cruz Mission Church collapsed.
August 1, 1863		Described as "severe shock"
October 8, 1865		Unknown
October 25, 1868		"Second only to October 1865"
July 1, 1882		Worst since 1868
March 1883		Severe shock with several aftershocks recorded. No damaged listed for Capitola.
September 18, 1888		Described as extremely severe.
1906	5:12am	Nine men killed in mudslide at the Loma Prieta mill above Soquel; surge on local creeks; water pipes broken; chimneys and walls cracked. Splits in the earth. Magnitude 8.3.
October 28, 1926		Damage recorded in Capitola
April 15, 1941		Santa Cruz epicenter. No damage.
June 2, 1941		Sharp jolt
April 15, 1954		Falling plaster, broken chimneys, shattered dishes
January 16, 1980		Epicenter of 3.6 magnitude quake in Corralitos
October 17, 1989	5:04pm, Duration: 15 seconds	6.9 magnitude earthquake, epicenter 3 miles north of Aptos. Comparatively, damage to Capitola homes and businesses was not severe. Within the city, no buildings immediately collapsed and no one was injured physically. Damage countywide ultimately estimated to be about \$1 billion.

The events described below were all recorded by a seismic recorder at the Capitola Fire Station.

**San Francisco Earthquake:** April 18, 1906 - Magnitude 8.3, Intensity VIII-XIII, occurred 91.1 miles away from City center – The earthquake was felt from southern Oregon to south of Los Angeles and inland as far as central Nevada. There were no recorded deaths in Santa Cruz but the old courthouse partially collapsed and approximately 1/3 of the chimneys within the city of Santa Cruz were destroyed or damaged. Landsliding was observed throughout the Santa Cruz Mountains, and fault rupture was nearly continuous along the San Andreas

Fault zone, and nearby fault zones in the county of Santa Cruz. Infrastructure was destroyed and broken water mains and pipes shut off water supply in many areas.

**Monterey Bay Earthquake:** October 1926 - Magnitude 6.1 – Two large earthquakes caused considerable damage in the Monterey Bay region. The first shock was severe at Santa Cruz, where many chimneys were knocked down, and old brick buildings sustained damage.

**Coyote Lake Earthquake:** August 6, 1979 - Magnitude 5.9, Intensity VI-VII, occurred 20.7 miles away from City center – Felt from approximately 37 miles north of Bakersfield, north to Sacramento, east to the Pacific Ocean.

**Livermore Earthquake:** January 24, 1980 - Magnitude 5.9, occurred 52.5 miles from City center – The earthquake injured 44 people and caused an estimated \$11.5 million in property damage. The shock was associated with surface rupture along the Greenville fault. It was felt over a large area of central California and a few towns in western Nevada.

**Morgan Hill Earthquake:** April 24, 1984 - Magnitude 6.2, Intensity VII-IX, occurred 26.5 miles from City center – Damage from the earthquake estimated at 7.5 million dollars. The earthquake was felt from Bakersfield to Sacramento and from San Francisco to Reno.

**Unnamed Earthquake:** June 27, 1988: Magnitude 5.9, occurred 11.4 miles from City center

**Loma Prieta Earthquake:** October 17, 1989 - Magnitude 7.1 occurred 5 miles from City Center (see Figure 2) – This major earthquake caused 63 deaths, 3,757 injuries, and an estimated \$6 billion in property damage statewide. It was the largest earthquake to occur on the San Andreas Fault since the San Francisco earthquake in April 1906. Communities sustaining heavy damage in the epicentral area included Los Gatos, Santa Cruz, and Watsonville. Liquefaction occurred as far as 110 kilometers from the epicenter and contributed to

significant property damage in the Santa Cruz and Monterey Bay area. The severe shaking near Santa Cruz caused heavy damage to the unreinforced masonry buildings in that area. Most of the landslides and rockfalls that occurred as a result of the earthquake occurred in the Santa Cruz Mountains. Shaking from this earthquake was felt throughout Capitola and resulting damage varied from minor structural damage and window and chimney breakage throughout the city. The most extensive damage in the city occurred in mobile home parks where coaches were knocked off their foundations disrupting gas and water services. Figure 3 shows what the City of



Figure 2 - Loma Prieta Earthquake

Capitola looked like just minutes after the earthquake occurred. As seen in the photo a significant amount of dust was generated as a result of the shaking.

**San Juan Bautista Earthquake:** August 12, 1998 – Magnitude 5.0 – Earthquake occurred on the San Andreas Fault, 12 kilometers southeast of San Juan Bautista.

**Gilroy Earthquake:** May 13, 2002 – Magnitude 4.9



**Figure 3 - Dust Generated from the Loma Prieta Earthquake (ca. 1989)**

**Parkfield Earthquake:** September 28, 2004 – Magnitude 6.0 – Earthquake occurred on the San Andreas Fault. It ruptured roughly the same segment of the fault that broke in 1966. Strong shaking lasted for about 10 seconds.

**Alum Rock Area Earthquake:** October 30, 2007 – Magnitude 5.6

### Past Occurrences - Liquefaction

Prior instances of liquefaction have not occurred or have been extremely isolated within the City of Capitola.

### Probability of Future Occurrence

There are at least six major faults and fault systems within or near Santa Cruz County and the City of Capitola, placing both locations in an area of high seismic risk. Earthquakes can cause severe damage over a long distance and, therefore, Santa Cruz County and Capitola remain at risk from seismic activity along the faults in the greater San Francisco Bay area. The reduction of seismic stresses that occurred in the Loma Prieta earthquake did nothing to relieve, and possibly increased, stresses along other faults, including other sections of the San Andreas Fault.

To clarify the extent of future earthquake risk, a partnership between the United States Geological Survey, California Geologic Survey, and Southern California Earthquake Center was formed in September 2004 to provide a uniform forecast. Known as the Working Group on California Earthquake Probabilities, this group evaluated and systemized currently available historic and paleoseismic information to produce a probabilistic seismic hazards analysis to indicate the type of future earthquakes. One product of this analysis is a method of estimating the probability of ground shaking, which is illustrated in *Table 15: Ten Most Likely Damaging Earthquake Scenarios*. The 30-year probability of an  $M \geq 6.7$  earthquake on the northern segment of the San Andreas Fault is 21% and on the San Gregorio Fault is 6%. Other faults within the region can also cause damage in the county, including the Hayward-Rogers Creek Fault that has a 31% probability of having a  $M \geq 6.7$  earthquake in the next thirty years.

Because the ten most likely future earthquakes in the Bay area occur on faults throughout the region, the impact and potential losses reported here reveal significant risk for the entire San Francisco Bay area region including Santa Cruz County and the City of Capitola.

The probability that liquefaction will occur in the future in Capitola is dependent on many factors including the intensity of ground shaking, location of the earthquake, and subsurface conditions (including groundwater elevation). For those areas of the City identified with a High and Very High liquefaction potential, it should be anticipated that potential damage could occur under anticipated future earthquakes.

**Table 15: Ten Most Likely Damaging Earthquake Scenarios**

<b>Earthquake Fault</b>	<b>30-year probability</b>	<b>Magnitude</b>
Rodgers Creek	15.2%	7.0
Northern Calaveras	12.4%	6.8
Southern Hayward (possible repeat of 1868 EQ)	11.3%	6.7
Northern + Southern Hayward	8.5%	6.9
Mt. Diablo	7.5%	6.7
Green Valley –Concord	6.0%	6.7
San Andreas: Entire N. CA Segment (possible repeat of 1906 EQ)	4.7%	7.9
San Andreas: Peninsula Segment (possible repeat of 1838 EQ)	4.4%	7.2
Northern San Gregorio segment	3.9%	7.2
San Andreas: Peninsula + Santa Cruz segment	3.5%	7.4

### Climate Change Considerations

As climate change occurs, it is anticipated that changes to precipitation regimes and hydrological patterns would result. Since liquefaction is dependent on the presence of shallow subsurface water, an increase in groundwater levels could occur due to increased precipitation, as well as sea-level rise, which is anticipated to inundate low lying coastal areas within Capitola. The potential increase in shallow subsurface water conditions could expand the potential liquefiable areas within the City, increasing the risk of future damage to structures within the City.

### Vulnerability/Risk Assessment

While Capitola remains a seismically active area, there are no active earthquake faults located within the City limits. Therefore, an overlay analysis between the earthquake faults and the City's critical facilities was not conducted.

Based on the extent of liquefaction potential zones within the City (Exhibit 6) and the location of critical facilities (depicted on Exhibit 6), Table 16: Capitola Critical Facilities Located in a Liquefaction Potential Zone identifies the critical facilities that fall within each zone of liquefaction potential, ranging from low to very high. Those areas where liquefaction potential is unknown is determined to be "Undefined".

The replacement, contents, and potential loss values of the facilities that fall within the liquefaction potential zones are listed in Table 16. It is expected that a liquefaction event would most likely impact facilities within the "Very High" potential zone. If all of the facilities in that zone are completely destroyed the loss would amount to \$16,900,000. A liquefaction event impacting facilities in the "High" potential zone could result in a total loss of \$14,100,000. While it is unlikely that an event would impact facilities in the low liquefaction potential zones and the undefined liquefaction areas, a rare, large, catastrophic event could impact facilities within all liquefaction zones. The total potential losses for an event of this scale are estimated to be a total of \$68,455,000.

The extent of the liquefaction potential layer did not allow for the intersection of the Capitola Wharf location. However given the proximity to water and similar characteristics to other areas of high liquefaction potential within the City it is assumed that liquefaction could occur in the vicinity of this location.

**Table 16: Capitola Critical Facilities Located in a Liquefaction Potential Zone**

Map #	Facility	Very High (A)	High (B)	Low (D)	Undefined (Unkn)	Replacement Value	Contents Value	Potential Loss
1	City Hall/Emergency Operations Center		X			\$4,000,000	\$750,000	\$4,750,000
1	Capitola Police Station		X			\$2,000,000	\$750,000	\$2,750,000
2	Central Fire Station #4		X			\$1,000,000	\$100,000	\$1,100,000
3	Jade Street Community Center -- Emergency Shelter			X		\$2,000,000	\$200,000	\$2,200,000
4	New Brighton Gym -- Emergency Shelter			X		\$2,500,000	\$75,000	\$2,575,000
4	New Brighton School -- Back-up Emergency Shelter			X		\$4,000,000	\$700,000	\$4,700,000
5	Capitola Library -- Backup Emergency Operations Center			X		\$2,000,000	\$700,000	\$2,700,000
6	Capitola Corporation Yard			X		\$1,000,000	\$500,000	\$1,500,000
7	Stockton Avenue Bridge	X				\$7,000,000	N/A	\$7,000,000
8	Capitola Wharf	Outside of Hazard layer extent				\$7,000,000	\$300,000	\$7,300,000
9	Capitola Beach Sea Wall	X				\$3,000,000	N/A	\$3,000,000
10	New Brighton State Park--staging area for emergency response		X	X	X	N/A	N/A	N/A
11	Cliff Drive -at risk arterial (sea wall and road)			X		\$5,000,000	N/A	\$5,000,000
12	Park Avenue-at risk arterial (sea wall and road)			X		\$3,000,000	N/A	\$3,000,000
13	Police Communications Antenna-Capitola Mall			X		\$100,000	N/A	\$100,000
14	Police Communications Antenna-AAA Building			X		\$100,000	N/A	\$100,000
15	Noble Gulch Storm Pipe		X			\$5,500,000	N/A	\$5,500,000
16	38th Avenue Drainage Facility			X		\$1,000,000	\$300,000	\$1,300,000
17	Capitola Pump Station-Esplanade Park				X	\$2,000,000	\$800,000	\$2,800,000
18	Soquel Pump Station	X				\$3,000,000	\$1,700,000	\$4,700,000
19	Lawn Way Storm Drain Pump Station	X				\$200,000	N/A	\$200,000
20	Soquel Creek Water District Treatment Plant, Garnet Street			X		\$400,000	\$700,000	\$1,100,000

**Table 16: Capitola Critical Facilities Located in a Liquefaction Potential Zone**

Map #	Facility	Very High (A)	High (B)	Low (D)	Undefined (Unkn)	Replacement Value	Contents Value	Potential Loss
21	Soquel Creek Water District Treatment Plant, Monterey Avenue			X		\$10,000	\$70,000	\$80,000
22	Soquel Creek Water District MacGregor Booster Pumping Station			X		Not Constructed	N/A	N/A
23	Capitola Beach Flume	X				\$2,000,000	N/A	\$2,000,000
24	Capitola Beach Jetty				X	\$3,000,000	N/A	\$3,000,000
25	Grand Avenue Cliffs				X	N/A	N/A	N/A
	<b>Total Potential Losses</b>					<b>\$60,810,000</b>	<b>\$7,645,000</b>	<b>\$68,455,000</b>

### *3.4.2 Coastal Storm/ Flooding*

#### **Identifying Coastal Storm and Flooding Hazards**

Flooding and coastal storms present similar risks and are usually related types of hazards in Capitola. Coastal storms can cause increases in tidal elevations (called storm surge), wind speed, coastal erosion, and debris flows, as well as flooding.

Coastal storms are generated in the Pacific Ocean and, as they rise over the mountain and ridges that border the eastern boundaries of Santa Cruz County, the air associated with these storms cools, resulting in large amounts of precipitation. The topography of the County provides fairly steep and well defined watershed areas to funnel the falling rain into runoff tributaries. Periods of heavy rainfall are common during fall and winter months causing Soquel Creek, the major drainage course through Capitola, and its tributaries to rise.

During a flood, excess water from rainfall or storm surge accumulates and overflows onto stream banks, beaches, and adjacent floodplains (as illustrated in Figure 4). Floodplains are lowlands adjacent to rivers, lakes, and oceans that are subject to recurring floods. Several factors determine the severity of floods, including rainfall intensity and duration; creek and storm drain system capacity, and the infiltration rate of the ground.

A flood occurs when a waterway receives a discharge greater than its conveyance capacity. Floods may result from intense rainfall, localized drainage problems, tsunamis or failure of flood control or water supply structures such as culverts, levees, dams or reservoirs. Floods usually occur in relation to precipitation. Flood severity is determined by the quantity and rate at which water enters the waterway, increasing volume and velocity of water flow. The rate of surface runoff, the major component of flood severity, is influenced by the topography of the region as well as the extent to which ground soil allows for infiltration in addition to the percent of impervious surfaces.



**Figure 4 - Flooding Along Soquel Creek Northwest of the Capitola Village (ca. 1996)**

Floodwaters can carry large objects downstream with a force strong enough to destroy stationary structures such as homes and bridges and break utility lines. Floodwaters also saturate materials and earth resulting in the instability, collapse, and destruction of structures as well as the loss of human life.

### **Profiling Coastal Storm/ Flood Hazards**

#### **Location**

**Capitola Wharf:** The Capitola Wharf is located in Monterey Bay and serves as a tourist attraction within Capitola Village. The wharf has a long history within the City, first founded in 1857. The current Capitola Wharf (Figure 5) was constructed in the 1980's following storm damage. It is an 855 foot long structure that contains a bait shop, restaurant, restroom facilities, and free fishing. This wharf is particularly vulnerable to coastal storms.



**Figure 5 - View of Capitola Wharf looking South (ca. 2012)**

**Soquel Creek Watershed:** Capitola is located in the lower reaches of the Soquel Creek Watershed, which is located between the cities of Santa Cruz and Watsonville. The Soquel Creek watershed drains an area of approximately 42 square miles. Major tributaries include the West Branch (Burns, Laurel, Hester Creek, Amaya Creek, Fern Gulch, Ashbury Gulch, and Hinkley Creek) and the Main Branch (Moore's Gulch, Grover Gulch, Love Creek, and Bate's Creek). Other tributaries include Noble Gulch, Porter Gulch, Tannery Gulch and Borregas Creek. Principal land use in the watershed includes urban development, rural residential development, agriculture, parks and recreation, and mining and timber harvesting. The Village, a cultural and business center in Capitola, is located at the terminus of Soquel Creek, where it enters the Pacific Ocean. Storm events can result in a significant amount of vegetation debris, which can get blocked at the Stockton Bridge and further exacerbate flood conditions.

**Noble Gulch:** Noble Gulch is a significant drainage that flows into Soquel Creek at the Capitola Village. Starting in the 1920's, the last 2,000 feet of the Gulch (west of Bay Avenue) was diverted via a 72-inch drainage pipe that extends under the current Pacific Cove Mobile Home Park. During a heavy storm in March 2011, high storm flows in Noble Gulch broke a 72 inch storm drain resulting in flood waters damaging the mobile home park and downstream properties. More information about this event is provided in the *Past Occurrences* section below.

**FEMA Special Flood Hazard Area Map:** Exhibit 7 - Flood Hazard Zones identifies the 100 and 500 year floodplains as identified by FEMA. The entire stretch of Soquel Creek (within the City limits) and a portion of Noble Gulch creek are located within the 100-year flood zone, which is generally narrow and follows the flow path of the main channel.

#### **Extent**

Exhibit 7 identifies the special flood hazard areas within the City of Capitola. These areas are subject to the 100 year flood (1 percent annual chance flood event), 500 year flood (.2 percent annual chance flood event), and coastal flooding (1 percent annual chance flood event with additional hazards associated with storm-induced waves). The TAC noted that occasionally waves from coastal storms do surpass the seawall built in the 1980s, which can cause localized flooding in the Capitola Village. Table 17: FEMA Flood Zones provides definitions of the FEMA Special Flood Hazard Area Zones delineated on Flood Insurance Rate Maps (FIRMs).



**Table 17: FEMA Flood Zones**

<b>Annual Probability of Flooding of 1% or greater (100 Year Flood Zones)</b>	
A	Subject to 100-year flood. Base flood elevation undetermined.
AE or A1-A30	Both AE and A1-A30 represent areas subject to 100-year flood with base flood elevation determined.
AH	Subject to 100-year shallow flooding (usually areas of ponding) with average depth of 1-3 feet. Base flood elevation determined.
AO	Subject to 100-year shallow flooding (usually sheet flow on sloping terrain) with average depth of 1-3 feet. Base flood elevation undetermined.
V	Subject to 100-year flood and additional velocity hazard (wave action). Base flood elevation undetermined.
VE or V1-V30	Both VE and V1-V30 represent areas subject to 100-year flood and additional velocity hazard (wave action). Base flood elevation determined.
<b>Annual Probability of Flooding of 0.2% to 1% (500 Year Flood Zone)</b>	
B or X500	Both B and X500 represent areas between the limits of the 100-year and 500-year flood; or certain areas subject to 100-year flood with average depths less than 1 foot or where the contributing drainage area is less than 1 square mile; or areas protected by levees from the 100-year flood.
<b>Annual Probability of Flooding of Less than 0.2%</b>	
C or X	Both C and X represent areas outside the 500-year flood plain with less than 0.2% annual probability of flooding.
<b>Annual Probability of Flooding of Less than 1%</b>	
No SFHA	Areas outside a "Special Flood Hazard Area" (or 100-year flood plain). Can include areas inundated by 0.2% annual chance flooding; areas inundated by 1% annual chance flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; areas protected by levees from 1% annual chance flooding; or areas outside the 1% and 0.2% annual chance floodplains.

The potential extent of flooding from Soquel Creek is quantified using the scale depicted in Figure 6. This scale illustrates stage level (water elevation within the creek) and the corresponding stage category (base flow, watch, monitor, flood warning) on the left hand side and past events (included measured flood depth) on the right hand side. Seven events in the past 30 years have exceeded a 5 year flood event, triggering a flood warning stage along Soquel Creek. Information regarding historic flooding events, including flood depth, are described in the Past Occurrences section of this hazard profile.

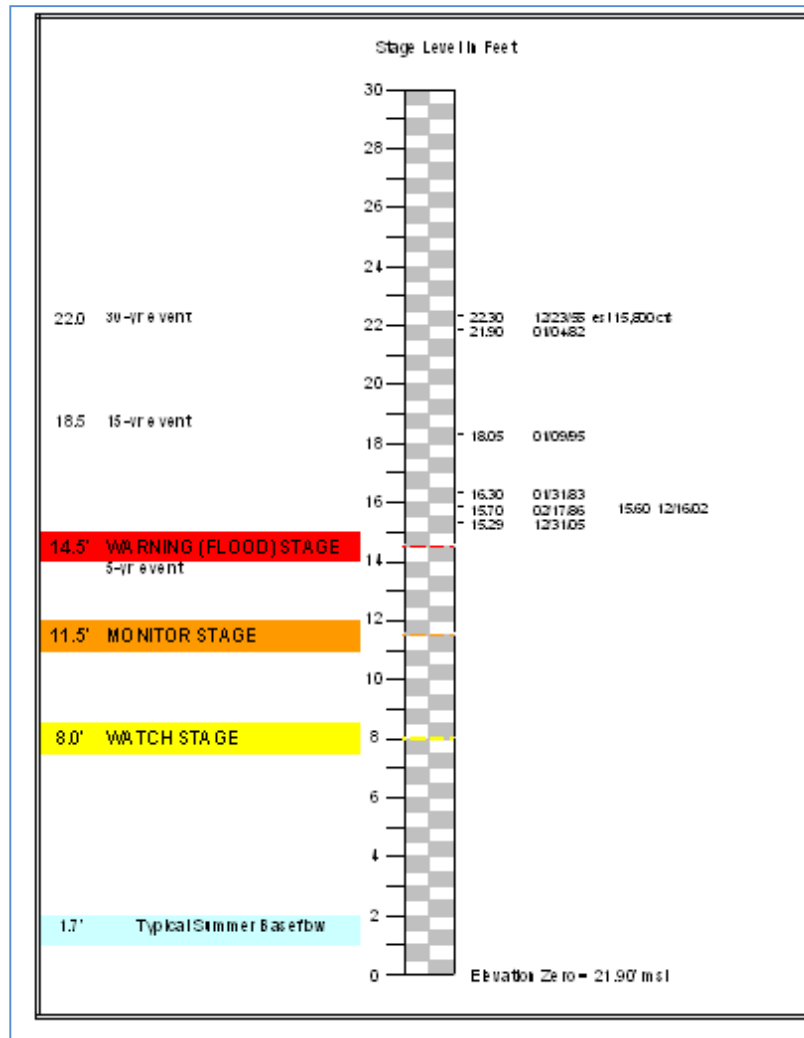


Figure 6 - Soquel Creek Stage Data  
 (Source: City of Capitola Public Works)

**FLOOD HAZARD ZONES**  
EXHIBIT 7

Disclaimer: This map is for planning purposes only. It is not intended to be used in lieu of FEMA Flood Insurance Rate Maps.



Source: City of Capitola, 2010; Santa Cruz County, 2011; FEMA DFIRM Santa Cruz County, California, USA. DFIRM Special Flood Hazard Areas (Flood Plains). FIRM and FIS effective date December 1, 2003.

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Past Occurrences

Coastal Storm: Past events of storm surge, high surf/tide, flooding, and coastal erosion that have affected the City are identified in Table 18: Historical Coastal Storm and High Surf Events. This information along with the pictures depicting flooding and coastal storm damage in Figures 7 through 9 were provided by the City of Capitola Historical Museum.



Figure 7: Coastal Storm (ca. 1926)



Figure 8: Coastal Storm (ca. 1940)



Figure 9: Coastal Storm (ca. 1983)

**Table 18: Historical Coastal Storm and High Surf Events**

Date	Event	Injury	Impact/Property Damage
January 1862	Storm/Flood		Major event- Soquel village inundated; mills, flumes, school, town hall, houses and barns were destroyed. Massive pile of debris went out to sea and then washed ashore at Soquel Landing.
November 25, 1865	Storm/High Tide		500 feet of the Soquel Landing wharf is lost; the remaining 600 feet are deemed "useless". Nearby barn blown down. Two young whales and a hair cloth sofa washed ashore. Waves described as "mountain high". Wharf damage is \$6,000. Pilings are deposited in a potato field beyond the beach.
December 14, 1867	Storm		Wharves damaged in Aptos and Watsonville but no specifics are listed for Soquel Landing.
September 19, 1868	Tidal Wave		High tide described as tidal wave; damage unknown.
February 3, 1869	Storm/ Flood/ Slides/ Washouts		New bridge washed away at Soquel; roads impassable.
December 23, 1871	Southeast gale, food, high tide		Water gauged to be "higher than flood of 1862."
January 24, 1874	Storm		Roaring surf. Rain threatens crops.
January 19, 1878	Storm with Tide		No Capitola impact recorded.
January 30, 1881	Storm		Conflicting reports on damage to Capitola. One report describes the resort as destroyed, while another stated damage was "not as serious"
December 16, 1886	High surf		Capitola impact unknown
December 30, 1886	High surf		High seas; ships prevented from landing.
May 10, 1887	Heaviest surf of the season		No damage reported for Capitola.
January 5, 1889	Storm		Damage to beach areas
December 26, 1889	Storm		Train service stopped; Santa Cruz County becomes isolated.
January 6, 1890	Storm/Mudslides in mountains		Worst winter in 40 years; concern for grain crops
February 8, 1892	High Tides	Swimmers endangered	Yacht "Petrel" washed ashore at Capitola; beachfront concessions damaged.
January 12, 1899	Severe Storm		Duration of several days; damage unknown.
January 2, 1900	Storm		Severe; no damage listed.
March 14, 1905	Storm		Judged to be "worst in 27 years." Capitola impact unknown.
April 27, 1907	Storm		High water and flooding; Capitola damage unknown.
January 21, 1911	Storm		Unknown

**Table 18: Historical Coastal Storm and High Surf Events**

<b>Date</b>	<b>Event</b>	<b>Injury</b>	<b>Impact/Property Damage</b>
March 7, 1911	Storm		Unknown
November 27, 1913	Storm and Tide	Fisherman Alberto Gibelli stranded when mid-section of wharf washed away.	Great groundswells when the tide was highest. Waves ran across the beach to the Esplanade and water spread "clear to the railroad tracks." Union Traction Company tracks covered with sand. Water reached the Hihn Superintendent's Building (Capitola and Monterey Avenues), and waves were described as "monster." About 200 feet washed of wharf washed away. Stranded fisherman rescued and pulled underwater to safety. A huge pile of debris covered the beach and was cut-up for firewood.
November 28, 1919	Storm		Damage high; no Capitola details.
December 27, 1921	Storm		Described as "great".
February 12 and 13, 1926	High Tides		Waves to 20 feet. Wharf damaged. Sea wall promenade broken at Venetian Courts. Apartments flooded. Breakers slammed into Esplanade, destroying boathouse/bathhouse, beach concessions. Tide hits the second floor of Hotel Capitola. Water runs a foot deep through village.
December 26, 1931	Storm		Soquel Creek rises; cleans lagoon at Capitola. Debris and wood deposited on the beach.
December 28 and 29, 1931	Storm and High Tide		Damage to cottages and concessions at New Brighton Beach. Roads fill with "the muck of the sea." At Seacliff Beach, the concrete ship Palo Alto is shaken loose and moved about three feet as if "impelled by the spirit of the sea to fulfill its destiny and start moving." Soquel "River" widens to sixty feet, the highest since 1890, damaging property in Soquel and all the way to the mouth at Capitola. Orchards are lost with the rapid rise of water. Hundreds gather to watch the tides batter the concessions at the beach. There is a "vortex of water where the river and sea meet." The waterfront is piled high with flood debris thrown back up the beach. The creek cuts across the beach and moves sand below the new outlet. Two months later, workers discovered a noticeable settling of the western end of the bathhouse, due to a break in the retaining wall. This left a portion of the bathhouse supported only by its concrete flooring. Repairs required rebuilding the retaining wall and replacing the fill.
March 22 and 23, 1937	Storm		Boats in the streets at Capitola. An estimated \$3,000 is spent to repair the sea wall at the Venetian Court Apartments.

**Table 18: Historical Coastal Storm and High Surf Events**

Date	Event	Injury	Impact/Property Damage
January 4, 1939	Wind and Waves		Main damage to Capitola Beach Club at the Esplanade and Monterey Avenue. Water and sand carried into the structure and spread out over the dance floor to the bandstand. While the storm was still raging, thieves jimmed the back door of the club's tap room, and made away with two slot machines, along with the stands on which they had rested. Ocean also swept over the Esplanade during the night, and into town for a block-and-a-half, carrying sand and rocks, some 6-8 inches in diameter. Waves hit the front and sides of the pier. Sand and rocks were swept into lower terraces of the Venetian Court and covered porches of the casino on the waterfront, but did no serious damage.
January 8, 1940 9pm until Noon	Storm		The "old Capitola casino" owned by Capitola Amusement Company was the principal victim of storm. Casino "capsized" shortly after 9 a.m. Plans for new structure announced immediately.
January 12, 1940	Storm		Most rain "since 1890" reported.
January 26, 1940	Storm		"Shatters all records"
March 31, 1940	Storm		"Wettest day in Santa Cruz history."
December 23, 1940	Storm		Flood conditions, winds
February 9, 1941	Storm		Near record storm
April 2, 1941	Severe Storm		Lasting many days. Damage unknown.
August 1, 1949	"Heaviest surf in 20 years"		18 foot waves recorded along the coast. Swimmer drowns in Santa Cruz.
Winter 1953	Giant Swells		Ocean side of building at the end of the Capitola Wharf smashed in by waves 20-30 feet at high tide. Six pilings broken off.
April 3, 1958	High Tide		Esplanade smashed by tides. Andy Antonetti's Merry-go-round damaged; horses are knocked off and washed down San Jose Avenue.
February 9, 1960	Gale winds, heavy seas		Power outages, slides, and winds 35-40 mph. Capitola hardest hit. Damage estimated at \$100,000. Ten Venetian Court apartments flooded. "A sign was ripped off the end of the wharf, rolled into a ball, and deposited into an apartment." Heavy waves smashed the beach restaurants, amusement concessions, and the merry-go-round. Rocks and logs strewn across the beach. Water pushed back under the Stockton Bridge, crushing the riverfront fences 100 yards on either side. An estimated \$5,000 in damage was done to the wharf building, but not much happened to the wharf itself. Cliffs crumbled on Grand Avenue. Police Chief Marty Bergthold called it "The worst storm in 15 years." A portion of Grand Avenue falls into the ocean.'



**Table 18: Historical Coastal Storm and High Surf Events**

<b>Date</b>	<b>Event</b>	<b>Injury</b>	<b>Impact/Property Damage</b>
December 1965	Storm		The City replaced 21 pilings under the wharf that were weakened by the storm. Capitola officials fear that waves would smash the seawall which protected sewer lines that ran from Capitola's pumping station to the East Cliff Sanitation District plant. That winter, the county public works department offered 500 cubic feet of rock rubble to be placed against the seawall.
January 1967	Storm		Reported as heavy
January 1973	Storm		Beach littered with tons of driftwood after heavy rains.
December 21, 1976	High waves		Waves crash over wharf
January 1978	High waves		Capitola Village streets flooded. Waves crash over wharf.
October 2, 1979	High waves		At least eight sailboats were destroyed at Capitola during the morning. A powerful swell brook 15 boats from their moorings off the Capitola Wharf. The boats were pushed ashore by 12-to-20 foot waves that pounded the shoreline
December 17, 1982	Storm		Restaurant on the newly renovated Capitola Wharf is damaged in storm.
January 27, 1983	High Tide		Capitola Wharf buildings, the Venetian Courts, the former boathouse building (Mr. Toots Downstairs) and all other business of the Esplanade were flooded. Water extends down San Jose Avenue and Lawn Way. Huge logs and debris are scattered through town. The giant surf took out a 30-foot section of the wharf which had been renovated in 1982.
February 10, 1983	High Tide		Surf rolls over the sea wall along the Esplanade. Water and debris extend as far as Capitola Avenue.
March 1, 1983	High Tide/Strong Winds		Waves damaged the restaurant at the end of the wharf, crashed over beach wall and entered restaurants on the Esplanade, "but damage was nothing compared to the million-dollar loss suffered in January," said Capitola City Manager Steve Burrell.
Winter 2008	High Tide		Old bathhouse/boathouse building (Margaritaville/Stockton Bridge Grill) battered by swells.

Flooding: Table 19: Historical Flood Events identifies notable occasions of flooding as researched by the City of Capitola Historical Museum.

**Table 19: Historical Flood Events**

Date	Injury	Impact/Property Damage
1791-1792		Santa Cruz Mission destroyed.
1847		Sawmill constructed on Soquel Creek (Rancho Soquel) destroyed. It had been built by John Hames and John Daubenbiss, who later obtained lands of the Rancho Rodeo, and became the founders of the town of Soquel (1852).
1852		This was a major flood event but impact not recorded (no newspapers had yet been established).
December 4, 1875		Compared to ferocity of the 1862 flood.
March 10, 1884		Storm lasted five days. No Capitola impact described in newspapers.
January 27, 1890		Judged to be as bad as 1852, 1862, and 1871; Capitola floods, footbridge and span of wagon bridge destroyed. Esplanade flooded—buildings to be replaced in “permanent form.” A huge pile of debris appears along the beach.
January 20, 1906		Buildings from Loma Prieta Lumber Company camp above Soquel are destroyed. Debris at Capitola. Downtown Soquel floods. Landslides in hills.
January 1, 1914		Flood in Soquel and along Soquel Creek.
January 4, 1935		Capitola Village floods; thirty feet of the sea wall is taken out. Beach playground disappears. Venetian Courts hit hard but damage minimal.
February 14, 1937		Soquel Creek floods in Soquel Village due to logjam at the bridge on Soquel Drive. Landslides in watershed.
February 27, 1940		Logs pile against bridge in downtown Soquel and village floods. Landslides in watershed.
February 5, 1945		Local damage unknown.
December 22, 1955		At the Soquel Drive bridge in downtown Soquel, remains of a four-room house and five cabins joined the rubble that wedged against the bridge abutments, causing the bridge to collapse. Overall damage to property in Soquel and Capitola exceeded \$1 million. Capitola damage included the Venetian Courts. Noble Creek and Tannery Creek also flooded.
December 20, 1964		Storm and tide alarms City with a disappearing beach.
January 1980		No damage reported.
January 3-5, 1982	Estimated damage to public property: \$270,889	Torrential rainfall, floods, mudslides countywide. Soquel Creek overflowed and flooded Soquel. The logjam at the bridge was estimated to be nearly 100 yards wide and 25 feet high. In Capitola, damage was comparatively minimal. The roadway leading to the Stockton Avenue bridge was damaged. The bridge bulkhead was undercut. Several of the Venetian Court units were damaged and a portion of the seawall gave way.
March 1995		The creek rose near the village.
Winter 1996		Yards and basements of homes along both sides of Soquel Creek near the village were flooded.
March 24 and 26, 2011		Noble Creek floods village; Tannery Creek rushes through New Brighton Parking lot and undermines the cliff roadway.

Of the events identified in Table 19: Historical Flood Events, the most recent and damaging event that has occurred in the past 15 years is the recent flooding event in Capitola, which is summarized below:

March 2011: Rushing water from a heavy storm overwhelmed an underground pipe drain that sends water from Noble Gulch Creek, which a tributary to Soquel Creek. This event caused a sinkhole at Pacific Cove Mobile Home Park, causing damage to mobile homes and businesses within Capitola Village. Water cascaded down Capitola Avenue into the Village flooding numerous businesses as well as City buildings (Police Station, Fire Station, and City Hall), see Figure 10. The Capitola Public Works Director estimated approximately \$500,000 worth of damage to city property, and several million dollars worth of damage to the city-owned Pacific Cove Mobile Park occurred as a result of this event. According to the National Climactic Data Center (NCDC), property damage county-wide resulting from this flood was estimated at \$15.5 million.



**Figure 10 - Flooding within the Capitola Village (ca. 2011)**

Coastal Storms: Significant storms, with associated damage, strike the Monterey

Bay communities with a frequency of one large storm every 3 to 4 years (Ott Water Engineers, Inc., 1984). This equates to a 25% to 33% chance of a large storm occurring within Capitola in a given year.

Flooding: The FEMA flood zones identified on Exhibit 7 provide the probability of a future occurrence of a flood in Capitola. The probability of occurrence is expressed in a percentage of the change of a flood of a specific extent occurring in any given year. For areas located within the 100 year flood zone, there is a 1% chance in a given year that this area will be inundated by flood waters. For areas located within the 500 year flood zone, this probability decreases to 0.2%. Exhibit 7 also identifies the critical facilities within the City that are located within the 100 and 500 year floodplains.

### Climate Change Considerations

Climate change can increase the probability and intensity of both fluvial and coastal storms, which could increase the probability and intensity of flooding in Capitola.

As a coastal community, Capitola is vulnerable to impacts associated with climate change, especially those relating to sea level rise. Scientists' estimate that mean sea level (MSL) has risen approximately 8 inches along the California coast over the last century. Recently, climate researchers have concluded that sea-level rise will accelerate, due to shifting climate change patterns associated with increasing greenhouse gas emissions. The

Intergovernmental Panel on Climate Change (IPCC) Climate Change Scenario A2 projects that MSL will rise 1.4 meters (approximately 55 inches) by the year 2100.

Exhibit 8, Sea Level Rise Inundation, shows the current (year 2000) Mean High Water Mark in Capitola, as well as the projected (Year 2100) Mean High Water Mark associated with a 1.4 meter rise in MSL. As shown in Exhibit 8, there are a few areas in the Village and adjacent to City Hall that would be inundated if this rise in MSL occurs. In addition, low lying coastal areas along New Brighton State Park would also be inundated by sea level rise in the future.

Based on the anticipated areas that would become inundated as a result of sea level rise, it is expected that additional areas of the City would be susceptible to flooding associated with a 100 year event. It is estimated that the 100 year flood hazard zone would increase by approximately 12 acres within the City of Capitola as a result of a 1.4 meter increase in mean sea level.

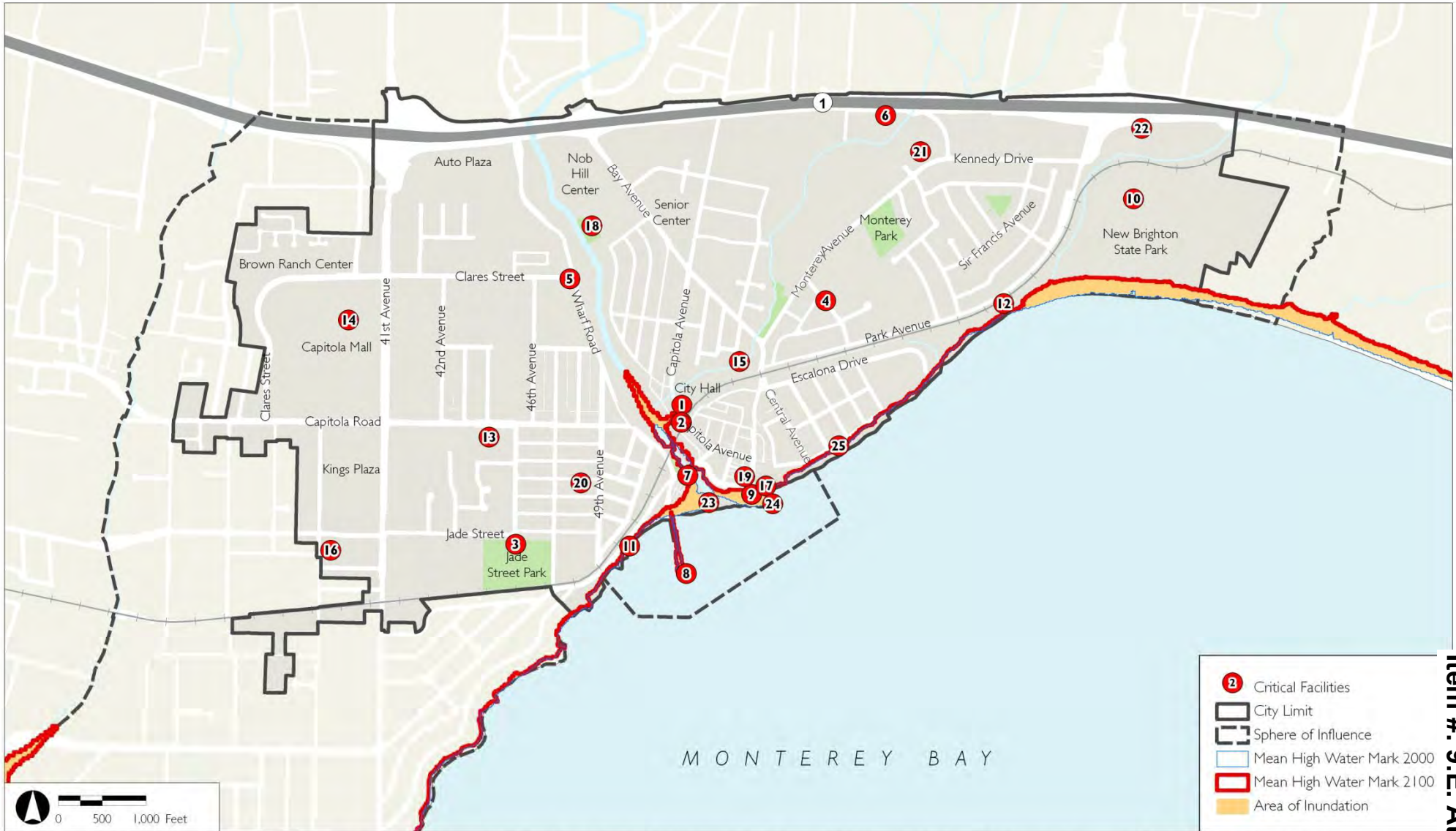
### Vulnerability/Risk Assessment

Table 20 identifies the Capitola critical facilities located within the 100 year FEMA floodplain. Those facilities that are within the 100 year floodplain have a greater risk to flooding. The total potential loss shown in the table below is based on the assumption that all facilities within the 100 year flood zone would be completely destroyed during a coastal storm/flooding event and shows the maximum potential losses. While this is possible, actual losses will vary based on the magnitude of the event.

**Table 20: Capitola Critical Facilities Located in a FEMA Flood Zone**

Map #	Facility	Within 100 Year Flood Zone	Replacement Value	Contents Value	Potential Loss
1	City Hall/Emergency Operations Center	Y	\$4,000,000	\$750,000	\$4,750,000
1	Capitola Police Station	Y	\$2,000,000	\$750,000	\$2,750,000
2	Central Fire Station #4	Y	\$1,000,000	\$100,000	\$1,100,000
7	Stockton Avenue Bridge	Y	\$7,000,000	N/A	\$7,000,000
8	Capitola Wharf	Y	\$7,000,000	\$300,000	\$7,300,000
9	Capitola Beach Sea Wall	Y	\$3,000,000	N/A	\$3,000,000
15	Noble Gulch Storm Pipe	Y	\$5,500,000	N/A	\$5,500,000
17	Capitola Pump Station-Esplanade Park	Y	\$2,000,000	\$800,000	\$2,800,000
18	Soquel Pump Station	Y	\$3,000,000	\$1,700,000	\$4,700,000
19	Lawn Way Storm Drain Pump Station	Y	\$200,000	N/A	\$200,000
23	Capitola Beach Flume	Y	\$2,000,000	N/A	\$2,000,000
24	Capitola Beach Jetty	Y	\$3,000,000	N/A	\$3,000,000
	<b>Total Potential Losses</b>		<b>\$39,700,000</b>	<b>\$4,400,000</b>	<b>\$44,100,000</b>

SEA LEVEL RISE INUNDATION  
EXHIBIT 8



Source: City of Capitola, 2010; Santa Cruz County, 2012; The Impacts of Sea-Level Rise on the California Coast: "Area inundated by mean higher high water (MHHW) under 1.4-meter (55-inch) sea-level rise scenario." [shapefile]. (2009). Oakland, CA: Pacific Institute. Available at [http://www.pacinst.org/reports/sea\\_level\\_rise/files/mhhw\\_2100\\_shp.zip](http://www.pacinst.org/reports/sea_level_rise/files/mhhw_2100_shp.zip). Downloaded: March 14, 2012.

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### *3.4.3 Drought and Water Resources*

#### **Identifying Drought Hazards**

**Drought:** A drought is a period of dry weather that persists long enough to cause problems such as crop damage and/or water supply shortages. Droughts can occur in short durations (single year occurrence) or can persist for several years (multi-year) which can impact hydrologic cycles and biologic communities. Droughts may not be predictable, but they should be expected. They occur with some regularity and varying levels of severity. The magnitude and duration of a drought is something that can be predicted based on historical records and should be taken into account in water resource planning.

The City of Capitola receives about 90% of its water supply from the Soquel Creek Water District (SqCWD), while the remaining 10% is supplied by the City of Santa Cruz Water Department (SCWD). In general, SqCWD serves areas of the City that are located east of 41<sup>st</sup> Avenue and the SCWD serves the portions of the City that are located west of 41<sup>st</sup> Avenue. Neither agency receives imported water from sources outside of the area, thus both agencies are solely dependent on local water supplies and face a number of critical constraints in their ability to provide enough water to meet current and future demand.

SqCWD obtains 100 percent of its water supply from two groundwater sources within the Soquel-Aptos area. While groundwater sources in general are usually less susceptible to seasonal drought than surface water sources, droughts do impact SqCWD's groundwater supply. Due to cumulative over-pumping for many years, coastal groundwater levels are below elevations that protect the local groundwater basin from seawater intrusion. This condition creates a state of overdraft that is exacerbated by drought conditions to the extent that less rainfall reduces groundwater recharge and generally increases water demand.

The SCWD obtains the majority of its water supply from surface water sources. Approximately 79 percent of its annual water supply needs are met by coastal stream surface diversions, and about 17 percent of its needs are met by Loch Lomond Reservoir. The remaining 4 percent of SCWD's annual supply needs are met by its Live Oak groundwater wells. The SCWD's water supply has limited capacity to serve additional users under normal conditions and has insufficient supply to meet existing demand under drought conditions.

Both water providers have experienced drought periods which resulted in water supply curtailment actions, the most recent occurring from 2007-2009, and both are susceptible to drought conditions in the future. In addition to the 2007-2009 drought, California experienced two other state-wide drought periods within the last forty years: 1976-1977 and 1987-1992.

**Groundwater supply:** The water supply in Capitola is primarily provided by SqCWD, which has been able to meet historical demand within its service area even though the underlying groundwater basin is overdrafted and at risk from seawater intrusion. In order to recover groundwater levels to protective elevations and eliminate overdraft, SqCWD needs to and is planning on reducing pumping to the Pre-Recovery Pumping Yield of 2,900 acre-feet per year (afy) within approximately 5 years, and maintaining pumping at or below this level for approximately 20 years. For perspective, the SqCWD pumped about 4,000 acre-feet of groundwater in 2011, so an approximate pumping reduction of 30 percent is required to meet the Pre-Recovery Pumping Yield. In response to overdraft conditions and the resulting need to reduce pumping by approximately 30 percent from 2011 levels, SqCWD continues to advocate water conservation and evaluate a desalination project with the SCWD as a supplemental water supply. SqCWD maintains an Urban Water Management Plan<sup>2</sup>, which outlines water conservation

<sup>2</sup> Soquel Creek Water District Urban Water Management Plan

strategies. SqCWD also completed a Well Master Plan and will be developing up to five new wells over the next five or so years to redistribute pumping inland away from vulnerable coastal areas and to achieve more uniform drawdown of the groundwater basin.

Seawater Intrusion: Seawater intrusion is the movement of ocean water into an area occupied by fresh groundwater, causing chloride contamination of the groundwater. While coastal aquifers naturally experience some seawater intrusion due to the seawater and freshwater interface, freshwater naturally serves as a barrier to seawater moving further inland. However, when coastal groundwater levels are depressed near or below sea level due to over-pumping, seawater can move inland and contaminate groundwater.

### **Profiling Drought Hazards**

#### Location

Exhibit 9 - Water Supply illustrates the SqCWD and SCWD boundaries as well as the limits of the local groundwater basin.

Drought: Droughts can occur over large regions (multiple states) or be isolated to small areas such as a City or County. The Santa Cruz County Hazard Mitigation Plan notes the entire county is susceptible to and at risk of drought conditions. Likewise, the City of Capitola is susceptible to drought.

Groundwater Supply: The majority of Capitola is served by the SqCWD, which currently relies solely on groundwater aquifers within the Soquel-Aptos area. The aquifers are located within two geologic formations that underlie the SqCWD service area. The Purisima Formation provides approximately two-thirds of SqCWD's annual production and serves the communities of Capitola, Soquel, Seacliff Beach, and Aptos. The Aromas Red Sands aquifer provides the remaining one-third of SqCWD's annual production and mainly serves the communities of Seascape, Rio Del Mar, and La Selva Beach.

Seawater Intrusion: While seawater intrusion is not currently detected in the Purisima Formation that serves the City of Capitola, the SqCWD Groundwater Management Plan<sup>3</sup> notes that elevated chloride concentrations have been detected in SqCWD's Purisima monitoring well SC-8F and other areas. This, combined with continued low groundwater elevations existing in the Purisima Formation, in spite of pumping reductions by SqCWD, suggests that future seawater intrusion is likely.

#### Extent

Drought: For a county-wide perspective on the extent of seasonal drought impacts, it is helpful to reference the SCWD since they rely on surface water for water supply. They are able to meet 100% of the existing water demand in about 7 out of every 10 years and at least approximately 90% of existing demand in about 9 out of 10 years. A significant shortage occurs on average about one out of every 10 years.

In addition to water supply shortages, prolonged periods of drought in the Capitola region can exacerbate the potential for wildfires that may affect the City. A decline in water supply can also negatively affect the ability to protect lands from wildfire and/or the City's ability to respond to fire incidents.

Groundwater Supply and Seawater Intrusion: Despite extensive conservation efforts by SqCWD customers, the groundwater basin is in a state of overdraft because more water is being pumped out than is naturally recharged through rainfall. Groundwater levels in the SqCWD service area have historically been decreasing and remain low

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<sup>3</sup> Soquel Creek Water District Groundwater Management Plan



in spite of SqCWD pumping reductions, which increases the vulnerability for seawater intrusion. Active seawater intrusion within SqCWD's service area is currently limited to portions of the Aromas Red Sands aquifer in the vicinity of Seascape and La Selva Beach; however, two of SqCWD's monitoring wells located in the westernmost portion of the Purisima Formation show early signs of seawater intrusion. In addition to over-pumping, there is also reduced potential for recharge as a result of increased impermeable surfaces (e.g., paving).

If SqCWD is not able to reduce pumping by promoting conservation programs and securing a supplemental supply to use in lieu of groundwater, seawater intrusion could move further inland and contaminate groundwater production wells. Additionally, if a supplemental supply is not developed, the following conditions are likely to occur:

- Year-round mandatory water restrictions for both residential and commercial customers to reduce overall projected demand by approximately 30%;
- A moratorium on new or expanded water services; and
- Reduced water sales due to water use restrictions will cause rates to increase in order to meet the fixed costs of delivery and maintenance of the water system.

### Past Occurrences

Drought: In recent history, Santa Cruz County was impacted by 3 statewide drought occurrences: 1976-77, 1987-1992, and 2007-09. Table 21: Historical Drought Events presents the impacts of drought researched by the City of Capitola Historical Museum.

**Table 21: Historical Drought Events**

<b>Date</b>	<b>Impact/Property Damage</b>
1863-1864	Unknown.
1877	Capitola's founder, S.A. Hall, was boarding 300 horses at his stable during the summer. The price of hay went to \$20.00 a ton due to the drought, and he lost money. When landowner F.A. Hihn increased the rent two years later, Hall couldn't afford the increase, and left
1928-1937	Reported as one of longest and most severe in state's history. Capitola is bordered by bulb ranches and floral nurseries, as well as poultry ranches and rabbit farms.
December 14, 1936	Long drought ended by rain.
1947-1949	Statewide.
1976-1977	Water conservation ordered.
1987-1992	Severe drought, water conservation ordered.
2007-2009	Water waste regulations strictly enforced; voluntary 15% conservation savings requested by local water providers.

Groundwater Supply: The Soquel Creek Water District is currently experiencing a water supply shortfall due to overdraft of the groundwater basin.

Seawater Intrusion: According to the SqCWD Groundwater Management Plan, a number of the coastal monitoring wells in the Aromas Red Sands indicate ongoing seawater intrusion.

### Probability of Future Occurrence

Drought: As noted in the Santa Cruz County Hazard Mitigation Plan, one approach to evaluating probability of future events focuses on the magnitude of the worst case drought, because it is the degree of shortfall that determines what actions the community would have to take and the resulting hardships the public would face. It should also take into account, though, the chance of that event occurring before a solution is achieved. The amount of time that elapses before new supply can be developed is an important consideration because it also has a bearing on the degree of risk faced by water customers; the longer the delay, the greater the risk. As with the threat of other natural hazards like a flood or an earthquake, the probability of a severe drought in any one-year may be comfortably low.

For instance, the drought on record of 1977 has a recurrence interval of 1 in 59 years. This means the probability of such an event is 1/59 or 0.017, which is the same as a 1.7% chance of occurrence in any one year. But the percent probability of occurrence, or chance, of a shortage occurring over a longer time frame is considerably higher, which changes the perception of the significance of risk.

Groundwater Supply: The SqCWD Urban Water Management Plan addresses the fact that without incorporating additional conservation methods and a supplemental supply of water to their existing groundwater water supply, the District will be unable to service all water demands in the future without exacerbating overdraft conditions in the basin or imposing significant water use restrictions.

Seawater Intrusion: Historically, seawater intrusion has been detected in various units of the Purisima Formation, which when combined with the low groundwater elevations within this formation indicates that future seawater intrusion is almost certain if conditions do not change. The Soquel Creek Water District Groundwater Management Plan states, "Analyses of historical seawater intrusion, combined with geologic interpretations, suggest the following likely locations for future seawater intrusion:

- Pleasure Point
- Soquel Creek and Aptos Creek Paleochannels"

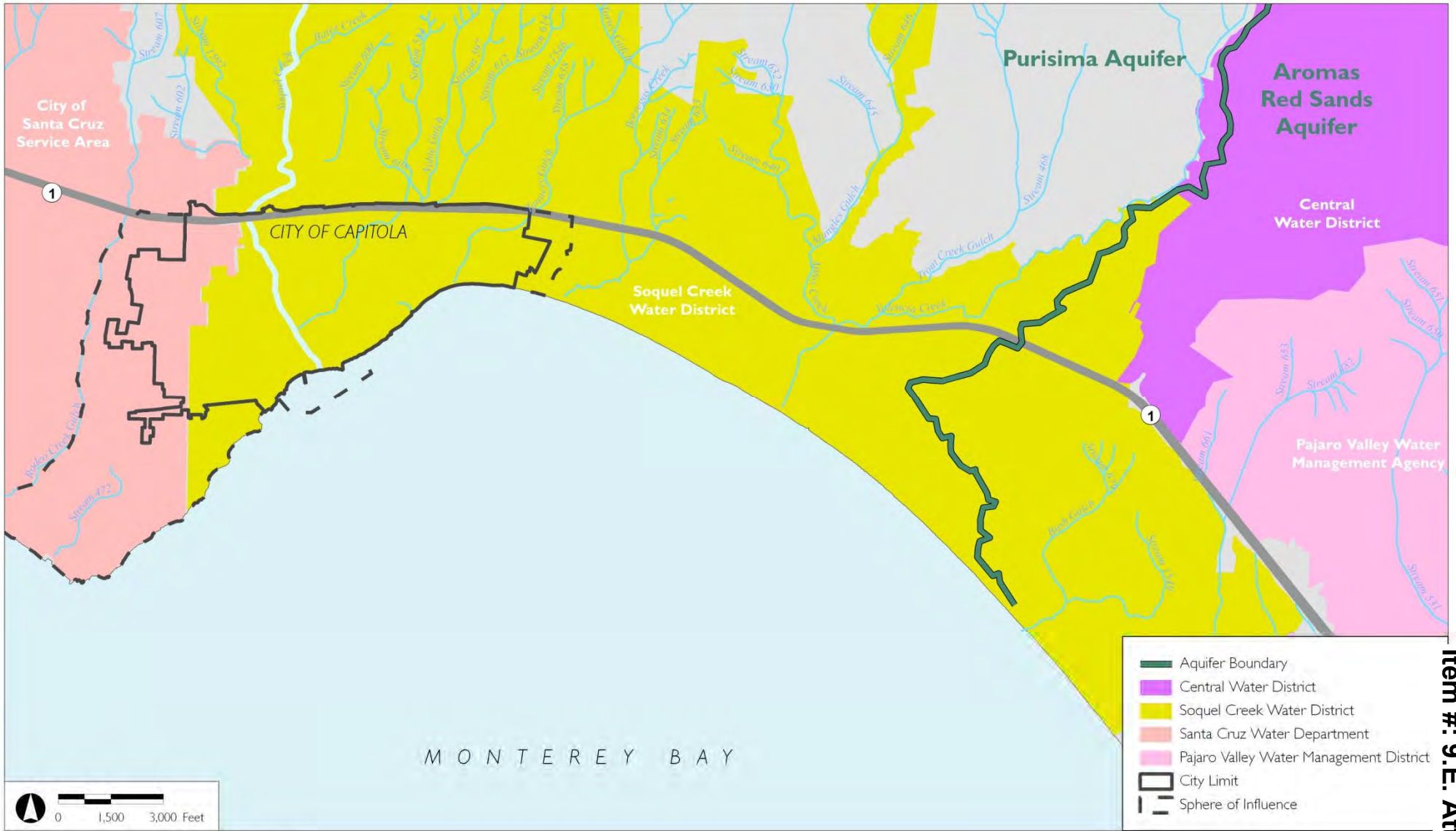
### Climate Change Considerations

Per the SqCWD Urban Water Management Plan, consistent future use of the Aromas and Purisima groundwater sources may be affected by climate change. Climate change forecasts indicate a potentially significant decrease (e.g., 30%) in recharge of groundwater basins. Additionally, projected rises in sea level may increase the risk and extent of seawater intrusion. Due to climate change, the City of Capitola may expect more severe droughts of longer duration.

### Vulnerability/Risk Assessment

Drought does not inflict physical damage on Capitola's critical assets; however, residents and businesses could be impacted by the water district they are provided by. 90% of the City's water supply is provided by the Soquel Creek Water District, which, although supplied by groundwater and less susceptible to seasonal drought, is susceptible to overdraft. The remaining 10% of the water supply is provided by the City of Santa Cruz Water Department, which is supplied by surface water and is susceptible to seasonal drought. Exhibit 9 above shows the water district boundaries.

**WATER SUPPLY**  
EXHIBIT 9



Source: City of Capitola, 2010; Santa Cruz County, 2012.

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### 3.4.4 Windstorm

#### Identifying Windstorm Hazards

Winds are horizontal flows of air that blow from areas of high pressure to areas of low pressure. Wind strength depends on the difference between the high- and low-pressure systems and the distance between them. A steep pressure gradient results from a large pressure difference or short distance between these systems and causes high winds. High winds are defined as those that last longer than 1 hour at greater than 39 miles per hour (mph) or for any length of time at greater than 57 mph.

#### Profiling Windstorm Hazards

##### Location

As illustrated in Exhibit 10 - *Prevailing Wind Patterns*, Capitola experiences prevailing wind conditions that are generated from the north and northwest, following the California coast. Due to its proximity to the ocean, Capitola also experiences ocean breezes that average between 1-2 miles per hour.

##### Extent

Since 2004 the highest recorded wind speed in Capitola has reached 46 mph.<sup>4</sup> Wind damage in Capitola may not always be associated with wind, but with tree falls that occur during windy conditions. If soil is saturated due to rain, the trees are more susceptible to falling in the wind.

##### Past Occurrences

Table 22: *Windstorms Reported in Santa Cruz County, California 1965-2011* identifies past high wind, strong wind, and tornado events in Santa Cruz County from 1965 through 2011.

**Table 22: Windstorms Reported in Santa Cruz County, California 1965-2011**

Date	Type of Event	Magnitude	Countywide Property Damage
4/1/1965	Tornado	F1 (73-112 mph)	\$0
12/05/1998	Tornado	F0 (40-72 mph)	\$50,000
4/3/1999	High Winds	85 MPH	\$0
4/4/2001	High Winds	71 MPH	\$2,700,000
11/24/2001	High Winds	85 MPH	\$7,100,000
12/21/2001	Tornado	F1 (73-112 mph)	\$250,000
1/7/2005	High Winds	58 MPH	\$0
2/27/2006	High Winds	70 MPH	1 Fatality
12/27/2006	High Winds	40 MPH	\$100,000
10/12/2008	Strong Winds	47 MPH	\$150,000
1/25/2009	Strong Winds	39 MPH	\$25,000
2/15/2009	High Winds	64 MPH	\$25,000
4/14/2009	Strong Winds	48 MPH	\$70,000
10/13/2009	High Winds	61 MPH	\$0
11/28/2009	Strong Winds	43 MPH	\$50,000
1/18/2010	Strong Winds	39 MPH	\$150,000

<sup>4</sup> Capitola Weather Net, accessed February 24, 2012. <http://www.capitolaweather.net/climate.php>

**Table 22: Windstorms Reported in Santa Cruz County, California 1965-2011**

Date	Type of Event	Magnitude	Countywide Property Damage
1/19/2010	Strong Winds	44 MPH	\$200,000
4/11/2010	Strong Winds	45 MPH	\$25,000
10/24/2010	Strong Winds	47 MPH	\$15,000
11/20/2010	Strong Wind	48 MPH	\$500,000
12/19/2010	Strong Winds	45 MPH	\$15,000
12/28/2010	High Winds	50 MPH	\$15,000
2/25/2011	Strong Winds	39 MPH	\$35,000
11/30/2011	High Winds	56 MPH	\$8,000

National Climatic Data Center

<http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms>

The City of Capitola Historical Museum researched the historical impacts from wind events as presented in Table 23: Historical Wind Events.

**Table 23: Historical Wind Events**

Date	Injury	Impact/Property Damage
February 10, 1938		Winds up to 70 mph; 500 trees uprooted throughout county. Thunderous seas lashed the waterfront from Aptos to Capitola.
December 9, 1943		60-mile-an-hour winds create damage in county
1975		40 knot winds downed trees and power lines.
1976		Winds downed power lines

In addition to the historical wind events listed above, historical coastal storm events, listed in the flood profile, may also produce wind damage.

### Probability of Future Occurrence

Due to its location, it is anticipated that Capitola will experience windstorms in the future. The predominant wind pattern throughout this area is from north to south, however strong winds have been known to occur from other directions as well. It is difficult to predict the amount of damage that could occur from a windstorm with great precision. Based on current modeling and information it is anticipated that most windstorms will follow the general patterns that have historically affected the City. However what is difficult to predict far into the future is the intensity and duration of a storm. Understanding that windstorm will occur within the City, it is better for the City to determine what potential vulnerabilities exist associated with a windstorm and mitigate these vulnerabilities effectively.

### Climate Change Considerations

It is anticipated that wind patterns and windstorm development may be altered due to climate change. The resulting change could increase future storm intensity and duration and potentially change the location of where these storms are generated. With this in mind it will be important for the City to consider how anticipated changes in weather patterns may change future events and how they respond and mitigate hazards associated with windstorms.

Vulnerability/Risk Assessment

The entire City of Capitola and all critical facilities are susceptible to windstorm damage. A majority of windstorm damage that occurs is associated with fallen trees/ tree limbs. Facilities located in close proximity to large trees may be more susceptible to windstorm damage as a result. It is highly unlikely that a windstorm would completely destroy any of the identified critical facilities. However, the replacement values for these facilities may be referenced in Table 7 - Capitola Critical Facilities List.

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PREVAILING WIND PATTERNS  
EXHIBIT 10



Source: City of Capitola, 2010; Santa Cruz County, 2010; ESRI, 2011.

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### *3.4.5 Coastal Erosion/Bluff Failure*

#### **Identifying Coastal Erosion/Bluff Failure Hazards**

Coastal erosion is the wearing away of coastal land. It is commonly used to describe the horizontal retreat of the shoreline along the ocean. Erosion can be measured as a rate, with respect to either a linear retreat (feet of shoreline recession per year) or volumetric loss (cubic yards of eroded sediment per linear foot of shoreline frontage per year).

Erosion rates are not uniform and vary over time at any single location. Annual variations are the result of seasonal changes in wave action and water levels. Erosion is caused by coastal storms and flood events, changes in the geometry of tidal inlets and bays and man-made structures and human activities such as shore protection structures and dredging.

Coastal erosion includes both cliff and bluff erosion and beach erosion, and is a result of both winter wave attack as well as constant wave action. Beaches change seasonally in response to changes in wave conditions. Winter storm waves are larger, steeper, and contain more energy, typically moving significant amounts of sand from the beaches to offshore sandbars, creating steep, narrow beaches. In the summer, lower, less energetic waves return the sand, widening beaches, and creating gentle slopes. During the winter months when beaches are narrow, or absent altogether, the storm waves attack the cliffs and bluffs more frequently. There are many factors involved in coastal erosion, including human activity, sea-level elevation, seasonal fluctuations and climate change, and sand movement from year to year in the same location.

Wind, waves, and the long-shore currents are some of the driving forces behind coastal erosion. The removal and deposition of sand creates long-term changes to beach shape and structure. Sand may be transported to landside dunes, deep ocean trenches, other beaches, and deep ocean bottoms.

Coastal erosion such as cliff and bluff erosion is also a result of processes related to the land such as rainfall and runoff, weathering, uplift, and earthquakes.

#### **Profiling Coastal Erosion/Bluff Failure Hazards**

##### Location

Capitola is a coastal city, residing within the Monterey Bay area of the Pacific Ocean. The entire coastal edge of the City is affected by coastal erosion. Areas of particular concern include:

Capitola Beach: Capitola Beach is a gently rising beach. A jetty located at the eastern edge of the beach has allowed the beach to remain relatively stable. Seasonal changes cause the amount of sand to change whereby winter storms deplete the sand supply, which is then replenished in summer months.

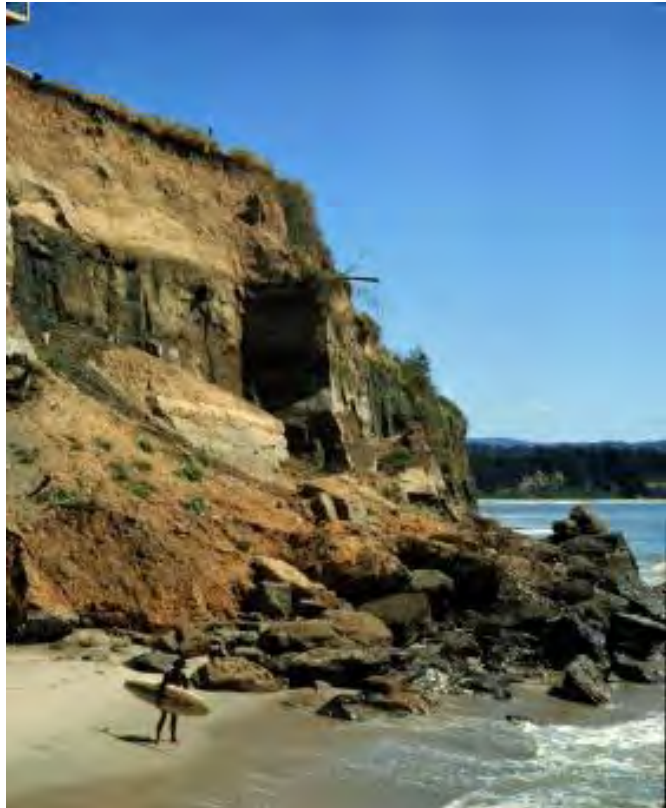
Capitola Cliffs: Located along Cliff Drive and the Depot Hill neighborhood. These areas have experienced high levels of coastal erosion (see Figure 11). The cliffs are characterized by gently dipping, late Tertiary sedimentary rocks that are generally overlain by nearly horizontal, quaternary terrace deposits. The local shoreline is nearly parallel to the dominant direction of approach for refracted waves. As a result, littoral drift is rapid, inhibiting formation of a continuous protective beach. Instead, a series of pocket beaches, which are sensitive to seasonal changes and human intervention, have formed. Cliff Drive within this portion of the City has been armored with a rip rap toe and concrete walls along the bluff, which provides erosion protection, however the Depot Hill neighborhood portion is unprotected.

The sanitation district is interested in seeing where the coastal erosion and bluff failure risks are the highest so they can evaluate if it will affect their infrastructure. They are actively planning to relocate sewers based on risk. They use the Capital Improvement Program to budget for these projects.

### Extent

Coastal Bluff Failure: The historic rate of bluff retreat in Capitola is approximately 0.9 feet per year. If this rate continues, the pedestrian pathway along the cliff area in the Depot Hill neighborhood would be unusable within 10-15 years and the Grand Avenue right-of-way almost entirely gone within 25 years. Assuming this constant rate of retreat, the first houses would be threatened or damaged in approximately 50 years, and most would be damaged or destroyed within approximately 75 years. After 100 years, some of the second-line houses could be threatened.

Based on conditions along the California and Capitola seacoast, 1-6 meters is the typical range of bluff failure with an average of 1.5-3 meters.



**Figure 11 - Episodic coastal bluff failure in Capitola**



**Figure 12 - Cliff Erosion Beneath Apartments on Depot Hill (ca. 1964)**

An example of coastal bluff failure is illustrated in Figure 12. Both sewer and sanitary infrastructure run through the bluffs in Capitola and have the potential to be impacted by bluff failure. In addition, sewer treatment plants are commonly located along the coast of California and are at risk to bluff failure and beach erosion in many locations. In addition development that has been placed on top of bluffs within Capitola is vulnerable to erosion, as illustrated in Figure 13.

Beach Erosion: Beach erosion (as shown in Figure 13) is a common occurrence during the winter months within Capitola. In a 2009 study prepared by the USGS<sup>5</sup>, the highest long-term shoreline erosion rates along the California



**Figure 13 - Capitola Beach Erosion**

coast were found in the Monterey Bay region, where the average rate of erosion was -0.6 meters/year. The short-term erosion rate was also high, at -0.8 meters/year. These erosion rates not only contribute to the loss of beach sand along the Capitola coast, but also contribute to erosion along the cliffs within this part of the State as well.

### Past Occurrences

Although coastal erosion is a continuous process, the rate of erosion is accelerated during times of severe storm activity. The NCDC database captures ocean surf events, which include high tides and surf, rip currents, and storm surge on a county-wide basis. The events noted in the NCDC database that may have contributed to increased coastal erosion in Capitola include:

October 28-29, 1999: A 15 foot swell in association with a relatively high tide produced waves as high as 40 feet which broke through the seawall in Capitola and flooded low lying streets and businesses. The Capitola Pier was closed because the waves were breaking up through the decking of the pier. The event caused \$1 million in property damage.

February 25, 2004: A strong winter storm brought ocean water onto the Boardwalk in Capitola producing damage on the pier and adjacent restaurant.

<sup>5</sup> Rates and Trends of Coastal Change in California and the Regional Behavior of the Beach and Cliff system ([http://allenpress.com/pdf/COAS\\_25.3\\_603\\_615.pdf](http://allenpress.com/pdf/COAS_25.3_603_615.pdf))

Additional coastal erosion in Capitola's history as researched by the City of Capitola Historical Museum is presented in Table 24: Historic Erosion Events.

**Table 24: Historic Erosion Events**

Date	Impact/Property Damage
1911	Incidents of cliff erosion along Grand Avenue prompt Lewis B. Hanchett, the owner of El Salto Resort, to begin chopping down trees along what is left of "Lover's Lane" along the bluff of Depot Hill. Hanchett believed that when the trees fell, they further hastened the cliff erosion.
January 24, 1930	About 130 residents appear before Santa Cruz County Supervisors to protest announced firing of 12-inch guns at Camp McQuaide, Capitola. Among petitioners claims are that "the terrific jar of the guns loosens the rim of the cliffs, and the earth is sloughing off to a dangerous degree."
January 9, 1935	Near the seawall cave-in by the site of the old hotel, a tree fell sixty feet from Grand Avenue. The "new favorite outdoor sport" for onlookers is to walk behind the sewer plant to see the fallen tree and debris of the broken sea wall.
May 2, 1955	Sentinel: Capitola City Council Asks Cleanup Help "Believe it or not, a few people still occasionally throw garbage over the cliff, particularly along Grand Avenue. This not only creates health hazards, but also attracts rodents which burrow into and weaken the cliff, increasing the rate of cliff erosion..."
1963	Capitola City Council votes to start condemnation proceedings against Harry Hooper to obtain 320 feet of Hooper Beach for erosion control to protect Cliff Drive, where a high rise development was planned.
1963	Capitola City Council considers construction of seawall to control erosion from Grand Avenue to New Brighton Beach. The filled in area would also provide parking for approximately 400 cars.
December 20, 1964	Construction begins on controversial Crest "prestige" 24-unit apartment house on the bay side of Grand Avenue on Depot Hill. Robert Lamberson, architect. Grand Avenue residents eventually sue the City over a disputed 10-foot setback for the project, which was built on a former park site at the top of the bluff. In the 1980s, several units facing the bay were removed due to cliff erosion. \$500,000
January 13, 1965	Capitola considers feasibility study to build 370-foot seawall along Grand Avenue. Backfilling below Grand Avenue would be used for a 1,000-car parking lot. Developers expressed desire to lease portion of the parking lot for a three-story, 20 unit convention hotel with restaurant and cocktail bar, to be built along the Grand Avenue bluff. First step was to have the beach deeded to the city by the state. \$1,228,000 estimated cost for parking lot \$275,000 estimated cost for hotel.
Summer 1965	Capitola requests help from the State Department of Water Resources to solve the problem of disappearing sand, due to "failure of Santa Cruz harbor officials to install a recommended sand bypass at the harbor jetty.
Summer 1965	Off-Shore parking lot plan revised. Parking lot to extend 430 feet out into the way from the cliffs south of Capitola beach for about 1,500 feet. A breakwater is planned to extend 600 feet south to the end of the high cliff area, to prevent cliff erosion. The parking lot would also be used as an "overnight parking unit" with commercial concessions for tourists. Project to cover ten acres reclaimed from the bay.
1966	Lifelong resident Violet Gooch hired Granite Construction to build a rip-rap wall at the base of the cliff at the end of the row of homes west of the wharf. (Hooper Beach)
1968	Army Corps of Engineers begins work to construct a groin, completed the following spring. \$160,000

**Table 24: Historic Erosion Events**

Date	Impact/Property Damage
February 15, 1984	Even though planner Susan Tupper warned the plan might not be a lasting solution, Capitola City Council approved a plan to stabilize its crumbling cliffs by installing artificial seaweed—a series of floating plastic fronds anchored to a sand-filled tube. The intent was to capture sand that drifts down the coast each year, thereby building a sandy beach in front of the cliffs below Grand Avenue. The “ersatz” seaweed lasted until the next major storm and then drifted to sea. The cliff continues to erode at a rate of 12-18 feet per year. \$120,000

In addition to the past erosion events listed above, coastal storms and high tides can also contribute to erosion and bluff failure. Figure 14 depicts a bluff failure along Grand Avenue that occurred in conjunction with the coastal storm that occurred in 1960. Additional detail of these past events can be found in the flood profile.

### Probability of Future Occurrence

Based on its coastal location, bluff and shoreline erosion will continue to occur in Capitola in the future. The amount of erosion will be dependent on the intensity of future storms and whether or not corrective actions are taken by the City or County to protect shoreline areas by reducing erosion rates. With regard to beach erosion/ bluff failure, it is less a matter of whether or not the hazard will occur and more a matter of the rate in which the hazard will cause additional damage (i.e. structural failure).

### Climate Change Considerations

As a coastal community, the potential for sea level rise could increase Capitola's vulnerability to flooding and coastal erosion. The cliffs and sandy beaches that

line sections of the Capitola coastline are already susceptible to erosion due to wave attack. It is anticipated that this susceptibility will increase in the event of sea-level rise. In areas not lined with vertical cliffs and bluffs, the depletion of sandy beaches may expose previously protected areas to additional flood hazards.

Exhibit 11 - Erosion Risk from Sea Level Rise, shows the location of future erosion hazard areas in the Year 2100, assuming a 1.4 meter rise in MSL. The hazard area is a swath of land approximately 250 feet wide that extends the length of nearly all of Capitola's shoreline, with the exception of a .2 mile gap along the low-lying area at the mouth of Soquel Creek in the Village. Assuming a rise in MSL of 1.4 meters, a total of 40 additional acres of land in Capitola will be vulnerable to bluff erosion hazards. Future vulnerable areas include Cliff Drive and surrounding open space and residential areas in the City's Jewel Box neighborhood, between the Village and New Brighton



**Figure 14 - Bluff Failure along Grand Avenue**  
(associated with 1960 coastal storm)

State Park. In addition, the coastal edge of New Brighton State Park on the east side of the City would be vulnerable to bluff erosion. An estimated 19 acres of land in Capitola would be susceptible to beach erosion in the year 2100, most likely in the low-lying area where Soquel Creek meets the Monterey Bay. At-risk areas include most of Capitola Village on both the south and north side of Soquel Creek.

### Vulnerability/Risk Assessment

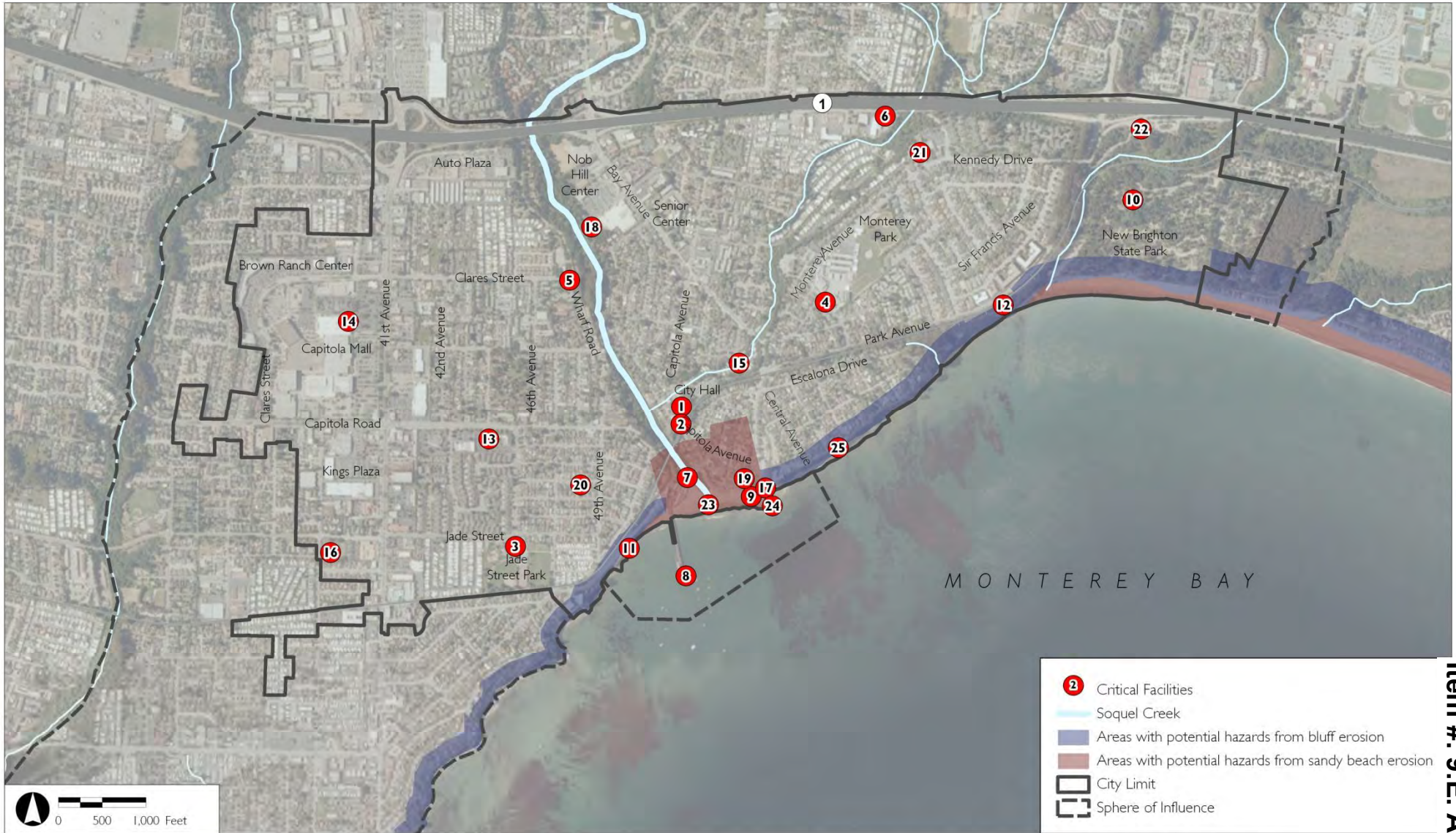
Intersections between critical facilities and areas of beach erosion and cliff erosion were conducted to determine which facilities are at risk to erosion. Based on this analysis, Table 25: Capitola Critical Facilities Exposed to Increased Erosion Potential identifies the facilities that could be impacted by increased beach and/ or cliff erosion in the future. The total potential loss shown in the table below is based on the assumption that all facilities within the beach and cliff erosion potential areas would be completely destroyed during an erosion event and shows the maximum potential losses. While this is possible, actual losses will vary based on the type and magnitude of the event.

**Table 25: Capitola Critical Facilities Exposed to Increased Erosion Potential**

Map #	Facility	Within Area of Beach Erosion Potential	Within Area of Cliff Erosion Potential	Replacement Value	Contents Value	Potential Loss
7	Stockton Avenue Bridge	X		\$7,000,000	N/A	\$7,000,000
11	Cliff Drive -at risk arterial (sea wall and road)		X	\$5,000,000	N/A	\$5,000,000
12	Park Avenue-at risk arterial (sea wall and road)		X	\$3,000,000	N/A	\$3,000,000
17	Capitola Pump Station- Esplanade Park		X	\$2,000,000	800,000	\$2,800,000
19	Lawn Way Storm Drain Pump Station	X		\$200,000	N/A	\$200,000
25	Grand Avenue Cliffs		X	N/A	N/A	N/A
	<b>Total Potential Losses</b>			<b>\$17,200,000</b>	<b>\$800,000</b>	<b>\$18,000,000</b>



EROSION RISK FROM SEA LEVEL RISE  
EXHIBIT II



Source: City of Capitola, 2010; Santa Cruz County, 2010; Pacific Institute, 2012: The Impacts of Sea-Level Rise on the California Coast. "Bluff erosion hazard with a 1.4 meter sea-level rise, 2100." [shapefile]. (2009). Oakland, CA: Pacific Institute.  
 Available at <[http://www.pacinst.org/reports/sea\\_level\\_rise/files/Bluff\\_hz\\_yr2100.zip](http://www.pacinst.org/reports/sea_level_rise/files/Bluff_hz_yr2100.zip)>. Downloaded: March 14, 2012.  
 Disclaimer: This map is for planning purposes only. It is not to be used in lieu of site-specific studies of erosion.

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### 3.4.6 Tsunami

#### **Identifying Tsunami Hazards**

A tsunami is a series of traveling ocean waves of extremely long length generated primarily by earthquakes occurring below or near the ocean floor. Underwater volcanic eruptions and landslides can also generate tsunamis. In the deep ocean, the tsunami waves propagate across the deep ocean with a speed exceeding 500 miles per hour and a wave height of only one foot or less. Tsunami waves are distinguished from ordinary ocean waves by their great length between wave crests, often exceeding 60 miles or more in the deep ocean, and by the time between these crests, ranging from ten minutes to an hour.

As tsunamis reach the shallow waters of the coast, the waves slow down and the water can pile up into a wall of destruction 30 feet or more in height. The effect can be amplified where a bay, harbor or lagoon is present, funneling the wave as it moves inland. Large tsunamis have been known to rise over 100 feet. Even a tsunami 10 to 20 feet high can be very destructive and cause many deaths and injuries.

Tsunamis can be categorized as “local” and Pacific-wide. Typically, a Pacific-wide tsunami is generated by major vertical ocean bottom movement in offshore deep trenches. A “local” tsunami can be a component of the Pacific-wide tsunami in the area of the earthquake or a wave that is confined to the area of generation within a bay or harbor and caused by movement of the bay itself or landslides. The local tsunami may be the most serious threat as it strikes suddenly, sometimes before the earthquake shaking stops.

#### **Profiling Tsunami Hazards**

##### Location and Extent

The City of Capitola is located on the Monterey Bay. Several active and potentially active earthquake faults are located near Capitola. Even a moderate earthquake occurring on any of the nearby faults could result in local source tsunamis from submarine landsliding in Monterey Bay. Additionally, distinct source tsunamis from the Cascadia Subduction Zone to the north, or Teletsunamis from elsewhere in the Pacific Ocean are also capable of causing tsunamis, which could result in inundation and damage in Capitola.

According to the Cal EMA Tsunami Inundation Maps of the Soquel and Santa Cruz Quadrangles, prepared on July 1, 2009, the entire Capitola coastline is susceptible to inundation by a tsunami. Properties located along Capitola Beach could experience significant damage from tsunami run up. In addition, inland areas of the City along Soquel Creek could experience flooding as far north as California State Route 1 (SR1) following a tsunami.

Exhibit 12 – *Tsunami Inundation Risk*, identifies the tsunami hazard areas within Capitola based on the Cal EMA Tsunami Inundation Mapping. This mapping is based on a theoretical worst case earthquake causing theoretical worst case inundations. As depicted in Exhibit 12, tsunami inundation could extend approximately 100 feet inland from the coast reaching Cliff Drive and Grand Avenue. Along Soquel Creek, tsunami inundation could extend north to SR 1, essentially dividing the City in two and potentially limiting access between the eastern and western portions of the City.

##### Past Occurrences

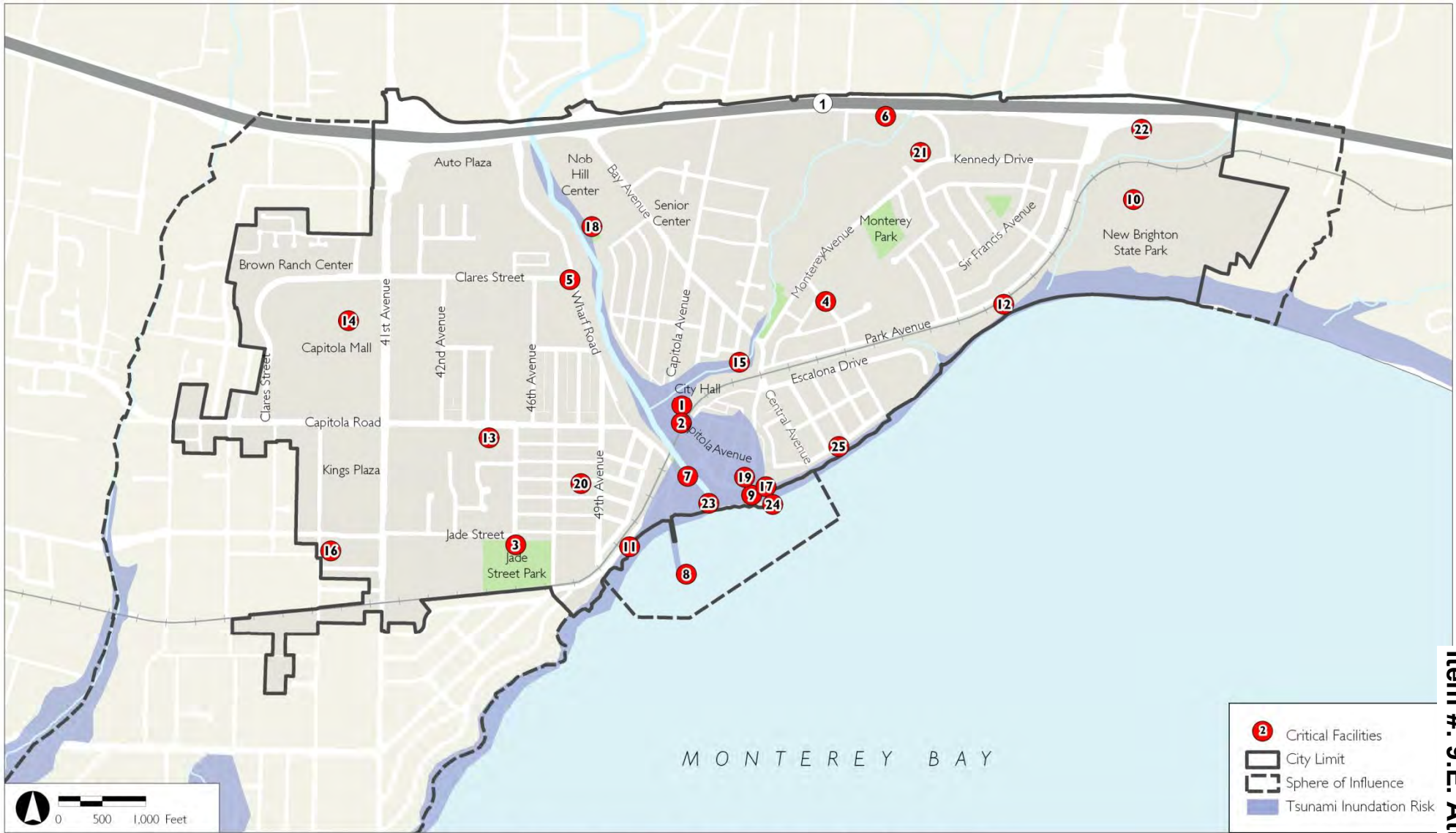
Tsunamis have been reported since ancient times. They have been documented extensively in California since 1806. Table 26: *Tsunami Events in Northern California 1930-2011*, contains a list of tsunamis that have impacted Northern California.

**Table 26: Tsunami Events in Northern California 1930-2011**

Date	Tsunami Location	Maximum Water Height*(m)	Earthquake Magnitude	Tsunami Source Location
10/3/1931	San Francisco	0.03	7.9	Solomon Islands
3/2/1933	San Francisco	0.07	8.4	Sanriku, Japan
11/10/1938	Crescent City	0.18	8.2	Alaska
4/6/1943	San Francisco	0.03	8.2	Chile
12/7/1944	San Francisco	0.02	8.1	Japan
4/1/1946	Santa Cruz	3.5	8.1	Unimak Island, Alaska
12/20/1946	San Francisco	0.05	8.1	Honshu, Japan
3/4/1952	San Francisco	0.02	8.1	Hokkaido, Japan
11/4/1952	San Francisco	0.54	9	Kamchatka Peninsula, Russia
3/9/1957	Monterey	0.61	8.6	Alaska
11/6/1958	San Francisco	0.2	8.3	Kuril Islands, Russia
5/22/1960	Santa Cruz	0.91	9.5	Chile
10/13/1963	San Francisco	0.1	8.5	Kuril Islands, Russia
3/28/1964	Capitola	2.13	9.2	Alaska
2/4/1965	Santa Cruz	0.61	8.7	Aleutian Islands, Alaska
10/17/1966	San Francisco	0.1	8.1	Lima, Peru
5/16/1968	San Francisco	0.1	8.2	Japan
7/26/1971	Crescent City	0.06	7.9	Papua New Guinea
10/3/1974	Crescent City	0.08	8.1	Lima, Peru
11/29/1975	San Francisco	0.06	7.1	Hawaii
5/7/1986	Crescent City	0.06	8	Aleutian Islands, Alaska
11/30/1987	San Francisco	0.05	7.9	Yakutat, Alaska
3/6/1988	San Francisco	0.01	7.7	Alaska
10/19/1989	Monterey	0.2	6.9	California
4/25/1992	Monterey	0.03	7.2	Cape Mendocino, CA
9/1/1994	Crescent City	0.07	7	California
10/4/1994	Crescent City	0.5	8.3	Kuril Islands, Russia
7/30/1995	Monterey	0.04	8	Chile
12/3/1995	Monterey	0.1	7.9	Kuril Islands, Russia
2/17/1996	Monterey	0.05	8.2	Indonesia
6/10/1996	San Francisco	0.02	7.9	Andreanof Islands, AK
6/23/2001	Monterey	0.08	8.4	Peru
9/25/2003	Monterey	0.05	8.3	Hokkaido Island, Japan
12/26/2004	Monterey	0.1	9.1	Indonesia
6/15/2005	Crescent City	0.1	7.2	California
5/3/2006	San Francisco	0.05	8	Tonga
1/13/2007	San Francisco	0.05	8.1	Kuril Islands, Russia
8/15/2007	Crescent City	0.16	8	Peru
9/29/2009	Monterey	0.15	8	Samoa Islands
10/7/2009	Monterey	0.05	7.6	Vanuatu Islands
2/27/2010	Monterey	0.28	8.8	Chile
3/11/2011	Santa Cruz	1.9	9	Honshu Island, Japan

\* The maximum water height above sea level in meters NOAA/WDC Tsunami Runup Database <http://www.ngdc.noaa.gov/nndc/struts/form?t=101650&s=167&d=166>

**TSUNAMI INUNDATION RISK**  
EXHIBIT 12



Source: City of Capitola, 2010; Santa Cruz County, 2012; Tsunami Inundation Risk of California, USC Tsunami Research Center, 2009 via California Resources Agency ArcGIS Map Server.

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Table 27: Historic Tsunami Events highlights the tsunami occurrences which impacted the City of Capitola, as researched by the City of Capitola Historical Museum.

**Table 27: Historic Tsunami Events**

Date	Impact/Property Damage*
April 1946	Earthquake in Aleutians produced 115-foot wave. Tsunami observed along the West Coast. A man was swept to sea in Santa Cruz. Ten-foot waves hit the coastline.
March 11, 2011	Capitola Village received warnings, but no damage

\* Historical information provided by City of Capitola Historical Museum, 2012.

The recent March 2011 Tsunami event closed roads in Capitola Village and raised a lot of awareness throughout the City. As a precaution, the City of Capitola issued a voluntary evacuation, notifying individuals through reverse 911, for the hotels on the wharf and a significant portion of the village. They used reverse 911 to issue the voluntary evacuation. Fortunately, it was low tide at the time the tsunami reached the California coast. The water receded past the end of the wharf, which is a very rare occurrence. If the tide was higher, the tsunami could have been large enough to overtop the seawall. No significant damage occurred from the tsunami event.

### Probability of Future Occurrence

Since scientists cannot predict when earthquakes will occur, they cannot determine exactly when a tsunami will be generated. Tsunamis are caused by large offshore earthquakes and ocean landslides. Dangerous tsunamis would most likely originate in the Aleutian and Chilean trenches, or the eastern coast of Japan or the Pacific Islands.

Based on modeling prepared by the California Geologic Survey, Tsunami Flow Depth Estimates for Capitola are provided in Table 28: Tsunami Flow Depth Estimates for Capitola. This table identifies the modeled source location of the earthquake event, magnitude of the modeled earthquake, approximate travel time and maximum flow depth values of the waves generated by the event. As indicated in this table Capitola is most susceptible to Tsunamis generated in the Alaska/ Aleutian Islands area as well as a local tsunami generated by a landslide within the Monterey Canyon.

**Table 28: Tsunami Flow Depth Estimates for Capitola**

Tsunami Source Location	Magnitude (Mw)	Approximate Travel Time	Tsunami Flow Depth (in feet above MSL)
Cascadia Subduction Zone	9.0	1 hour	5
Alaska/ Aleutian Islands	8.9-9.3	5 hours	7 - 30
Kuril Islands	8.8	9 hours	4 - 5
Japan	8.8	10 hours	4
Marianas Subduction Zone	8.6	11 hours	3
Chile	9.3-9.4	13-14 hours	4-6
Monterey Canyon Landslide*	N/A	7-15 minutes	16

\*A Monterey Canyon Landslide could be triggered by an average earthquake.

Capitola is participating in the Tsunami Ready Program in order to mitigate the affects of future tsunamis. The Tsunami Ready Program is designed to help cities, towns, counties, universities, and other large sites in coastal areas reduce the potential for disastrous tsunami-related c consequences. Tsunami Ready status is achieved through a vigorous certification program that includes planning, communication, and education specifically

addressing tsunami hazards. As part of this program, tsunami inundation maps, evacuation maps, and a tsunami ready signage plan, indicating the perimeter of an inundation zone and the appropriate action to be taken by individuals on the beach when an earthquake occurs, were created.

### Climate Change Considerations

As a coastal community, the threat of inundation from a Tsunami is always there. Given the anticipated changes in sea level elevation associated with climate change, it is likely that the City's risk to tsunami inundation would increase. With a sea level increase, larger portions of the Capitola coast would be inundated by the rising sea, allowing for greater tsunami run up into the interior portions of the City. The main areas that would experience inundation due to sea level rise are the lower reaches of Soquel Creek and coastal areas of New Brighton State Park. Since these same areas are also susceptible to tsunami inundation, it is likely that additional areas along the periphery of the zone identified on Exhibit 12 would experience run up as sea level increases.

### Vulnerability/Risk Assessment

Table 29: Capitola Critical Facilities Exposed to Tsunami Inundation identifies the critical facilities that are potentially at risk during a tsunami event. Depending on the location or origination, severity of movement, and time of year when the event occurs, these facilities could be impacted by tsunami inundation. The total potential loss shown in the table below is based on the assumption that all facilities within the tsunami inundation zone would be completely destroyed during a tsunami event and shows the maximum potential losses. While this is possible, actual losses will vary based on the magnitude of the event.

**Table 29: Capitola Critical Facilities Exposed to Tsunami Inundation**

Map #	Facility	Within Tsunami Inundation Zone	Replacement Value	Contents Value	Potential Loss
1	City Hall/Emergency Operations Center	Y	\$4,000,000	\$750,000	\$4,750,000
1	Capitola Police Station	Y	\$2,000,000	\$750,000	\$2,750,000
2	Central Fire Station #4	Y	\$1,000,000	\$100,000	\$1,100,000
7	Stockton Avenue Bridge	Y	\$7,000,000	N/A	\$7,000,000
8	Capitola Wharf	Y	\$7,000,000	\$300,000	\$7,300,000
9	Capitola Beach Sea Wall	Y	\$3,000,000	N/A	\$3,000,000
11	Cliff Drive -at risk arterial (sea wall and road)	Y	\$5,000,000	N/A	\$5,000,000
15	Noble Gulch Storm Pipe	Y	\$5,500,000	N/A	\$5,500,000
17	Capitola Pump Station-Esplanade Park	Y	\$2,000,000	\$8,000,000	\$10,000,000
19	Lawn Way Storm Drain Pump Station	Y	\$200,000	N/A	\$200,000
23	Capitola Beach Flume	Y	\$2,000,000	N/A	\$2,000,000
24	Capitola Beach Jetty	Y	\$3,000,000	N/A	\$3,000,000
	<b>Total Potential Losses</b>		<b>\$41,700,000</b>	<b>\$9,900,000</b>	<b>\$51,600,000</b>



### ***3.4.7 Hazardous Materials***

#### ***Identifying Hazardous Material Release Hazards***

“Hazardous materials” covers a large number of substances that are a danger to the public. These include toxic metals, chemicals, and gases; flammable and/or explosive liquids and solids; corrosive materials; infectious substances; and radioactive materials. The City of Capitola has adopted a Hazardous Materials Ordinance which requires that the City be notified of all use, storage, and transport of hazardous materials.

In addition to the immediate risk to life safety, public health, and air quality, the potential for water source contamination and the potential environmental impacts of accidental hazardous materials releases and toxic substances, there is also concern over the long-term public health and environmental impacts that may result from the sustained use of or exposure to certain substances. An incident could result in the evacuation of a few people, a section of a facility, or an entire neighborhood.

#### ***Profiling Hazardous Material Release Hazards***

##### Location and Extent

Hazardous materials are everywhere and are accidentally released or spilled many times during any given day. In 2008, the California State Warning Center received approximately 8,000 hazardous material spill reports on hazardous material incidents and potential hazardous material incidents. Of these incidents, most are minor but some do cause significant impacts such as injuries, evacuation, and the need for cleanup. As illustrated in Exhibit 13 - *Hazardous Materials Locations*, the western portion of Capitola contains the majority of City’s hazardous materials locations, with a significant number of locations located along 41<sup>st</sup> Avenue.

One area of special concern regarding toxic spills is the close proximity of the Capitola Auto Plaza Mall and Highway One, to Soquel Creek. In case of a hazardous materials spill from either location, the discharge could migrate into Soquel Creek. Another concern regarding hazardous materials spills is the potential for chemicals and substances to migrate into the groundwater table. Since a majority of the City is served by Soquel Creek Water District which relies on groundwater, any potential contaminants entering the groundwater aquifer could impact the District’s ability to serve its customers.

##### Past Occurrences

*Table 30: RIMS Spill Database for Capitola, CA* contains a list of spills documented on the California Emergency Management Agency’s (CalEMA) Regional Information Management System (RIMS) between 2006 and the beginning of 2012. Since 2006 there have been 14 cases documented within Capitola, which equates to an average of approximately 2.7 spills per year. One historic event documented by the Capitola Historical Museum includes birds known as Sooty Shearwaters falling from the sky in the summer of 1961 due to toxins from red algae. The birds covered the streets, wharf, and beach.

##### Probability of Future Occurrence

Although past occurrences can be an indicator of future impacts, in the case of hazardous materials spills, the City is constantly improving the mechanisms by which they approve and regulate businesses that use hazardous materials. In addition, technological advances and increases in industry standards are also improving safety and further preventing/ minimizing potential releases of hazardous materials. As a result it is anticipated that future incidents will decrease over time as newer technologies, standards, and regulations are put in place.

**Table 30: RIMS Spill Database for Capitola, CA**

Date	Spill Site	Substance
2/6/2006	Storm Drain	Raw Sewage
4/24/2006	Railroad	Unknown
5/12/2006	Road	Raw Sewage
7/4/2006	Waterways	Unspecified
8/13/2006	Merchant/Business	Raw Sewage
4/3/2007	Residence	Raw Sewage
4/26/2007	Railroad	Unspecified
2/22/2009	Merchant/Business	Raw Sewage
3/23/2009	Other	Raw Sewage
4/27/2011	Residence	Other
7/9/2011	Ship/Harbor/Port	Petroleum
7/9/2011	Waterways	Petroleum
8/1/2011	Waterways	Petroleum
1/20/2012	Merchant/Business	Chemical

Hazardous Materials Spill Report <http://www.oes.ca.gov/operational/mal haz.nsf>

### Climate Change Considerations

Anticipating that precipitation regimes may change in the future as a result of climate change, there may be greater opportunity for the release of hazardous materials to enter local waterways and the groundwater aquifer. It is anticipated that if this concern increases that the City and other regulating agencies would re-visit procedures and practices in place to ensure that the greatest amount of protection occurs.

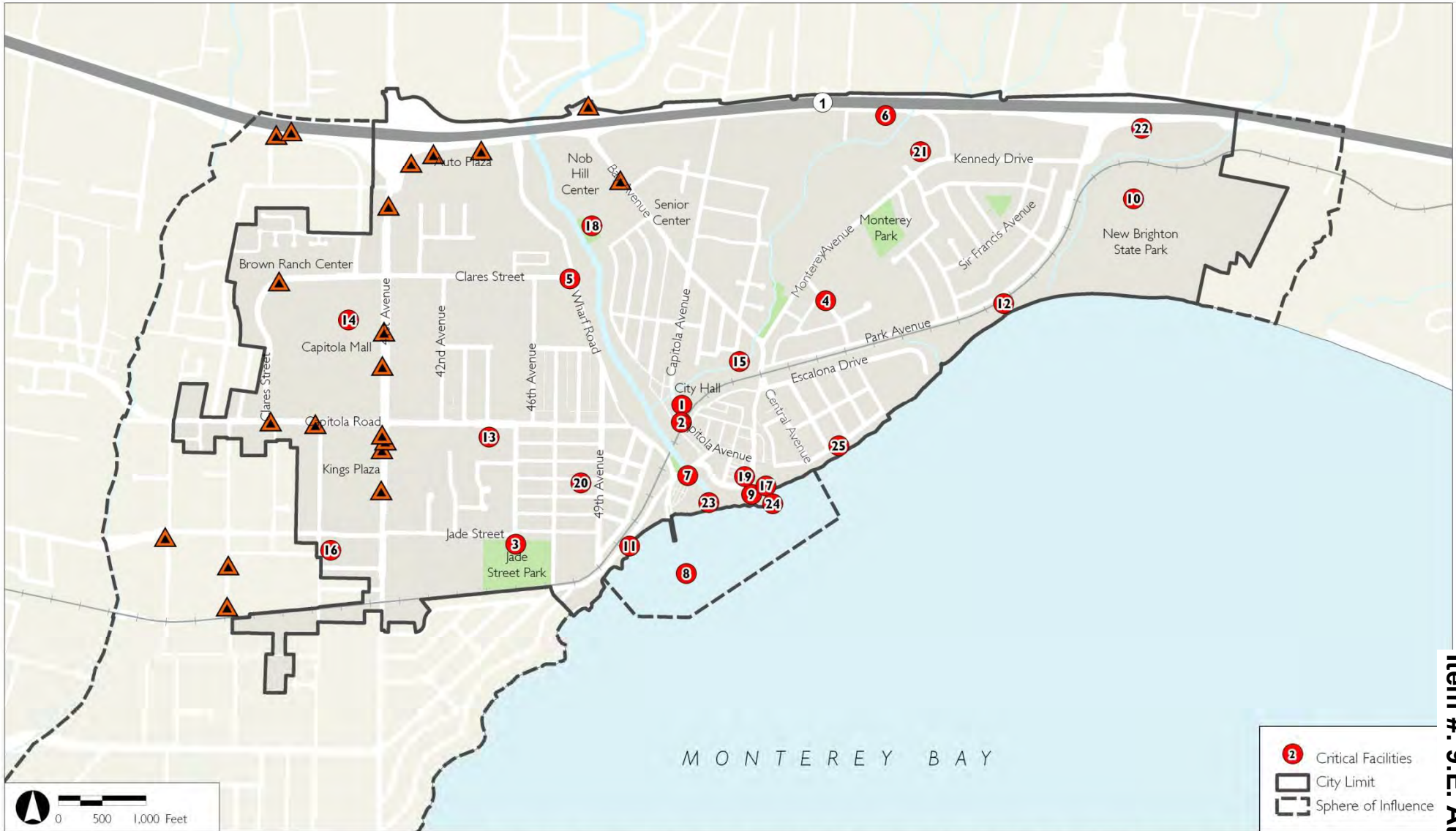
### Vulnerability/Risk Assessment

Table 31: Capitola Critical Facilities Located Close to Hazardous Materials Locations identifies locations that could be exposed to hazardous materials releases during a disaster event. These locations only take into consideration the proximity to existing hazardous materials facilities and do not include potential exposure associated with the movement/ transport of hazardous materials. The total potential loss shown in the table below is based on the assumption that all facilities within 1,000 feet of a hazardous materials facility would be completely destroyed during a hazardous materials release/event and shows the maximum potential losses. While this is possible, actual losses will vary based on the location and magnitude of the event.

**Table 31: Capitola Critical Facilities Located Close to Hazardous Materials Locations**

Map #	Facilities	Hazardous Materials within 500'	Hazardous Materials within 1000'	Replacement Value	Contents Value	Potential Loss
14	Police Communications Antenna-AAA Building	X	X	\$100,000	N/A	\$100,000
16	38th Avenue Drainage Facility		X	\$1,000,000	\$300,000	\$1,300,000
18	Soquel Pump Station		X	\$3,000,000	\$1,700,000	\$4,700,000
	<b>Total Potential Losses</b>			<b>\$4,100,000</b>	<b>\$2,000,000</b>	<b>\$6,100,000</b>

HAZARDOUS MATERIALS LOCATIONS  
EXHIBIT 13



Source: City of Capitola, 2010; Santa Cruz County, 2011; Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Information System. "Facilities Regulated by EPA." (April 17, 2009). Washington, DC: U.S. Environmental Protection Agency, Headquarters. Available at <<http://www.epa.gov/emefdata/em4ef/home>>. Downloaded: February 3, 2012.

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### **3.4.8 Wildfire**

#### **Identifying Wildfire Hazards**

Fire hazards threaten lives, property, and natural resources, and also present a considerable risk to vegetation and wildlife habitat. Fires occur in wildland and urban areas.

A wildfire is an uncontrolled fire spreading through vegetative fuels. Wildfires can be caused by human error (such as campfires), intentionally by arson, by mechanical sources of ignition (such as heaters and generators), and by natural events (such as lightning). Wildfires often occur in forests or other areas with ample vegetation. In areas where structures and other human development meets or intermingles with wildland or vegetative fuels (referred to as the “wildland urban interface”), wildfires can cause significant property damage and present extreme threats to public health and safety.

Urban fires usually result from sources within structures themselves and are generally related to specific sites and structures. The availability of fire fighting services is essential to minimizing losses that result from a fire. Effective fire protection in urban areas is based upon several factors, such as the age of structures, efficiency of circulation routes (ultimately affects response times), and availability of water resources to combat fires.

#### **Profiling Wildfire Hazards**

##### **Location and Extent**

As indicated in Exhibit 14 - Fire Hazard Areas, there are no fire hazard areas located in the City of Capitola based on the available fire mapping for Santa Cruz County. However, fire hazard areas do exist two miles north of the city limits along the foothills of the Santa Cruz Mountains.

In addition to the mapped fire hazard areas within the County, the areas that are most susceptible to fire hazards are drainage courses that have a significant amount of vegetation within them such as Soquel Creek. It is likely that these areas within the City would experience fires due to natural or man-made causes. The wildland threat for Capitola is increased due to localized invasive species such as Eucalyptus groves.

##### **Past Occurrences**

There are no significant wildfire events that have impacted the City of Capitola.

##### **Probability of Future Occurrence**

Despite the fact that there has not been a recent wildland fire within the city limits, residential development continues to spread into wildland/urban interface areas increasing the danger to life and property should a fire occur. Areas of concern associated with wildland fire are those adjacent to natural areas that are heavily vegetated (i.e. Soquel Creek). These areas are even more susceptible if human activities are allowed within, as these activities can introduce new ignition sources into these areas.

A fire threat will always exist in a wildland/urban interface area as long as vegetation, trees, down and dead fuels, structures and humans co-exist. There is a high probability that fires will occur in one or more of these areas.

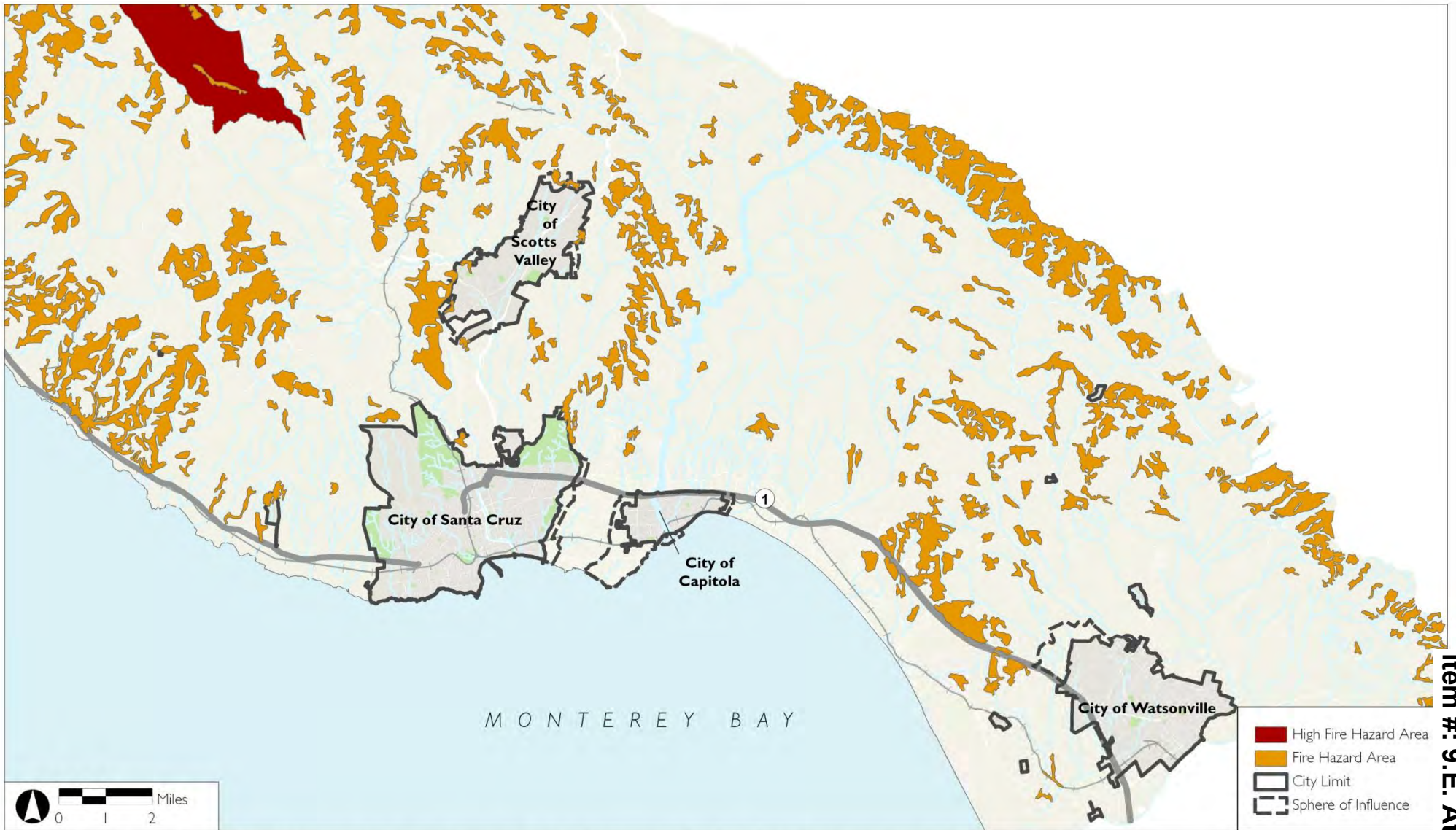
##### **Climate Change Considerations**

Anticipating that precipitation regimes may change in the future as a result of climate change, there may be greater opportunity for wildfire hazards throughout the State of California. Increases future droughts and hotter temperatures could increase fuel loads within wildland areas increase the risk associated with wildland fires.

Vulnerability/Risk Assessment

As indicated in Exhibit 14 - Fire Hazard Areas, there are no fire hazard areas located in the City of Capitola based on the available fire mapping for Santa Cruz County. Intersections between critical facilities and fire hazard areas were not conducted since these areas are not within the City.

FIRE HAZARD AREAS  
EXHIBIT 14



Source: City of Capitola, 2010; Santa Cruz County, 2010; Emergency Management. "Fire Hazard Areas." [shapefile]. (2010). Santa Cruz County Geographic Information System File Download Site. Available at <<http://sccftpmap.co.santa-cruz.ca.us/File%20Download%20Site/Emergency%20Management/Shapefiles/EmergencyMgmt.zip>>. Downloaded: January 29, 2011.

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### ***3.4.9 Landslide and Mudflow***

#### **Identifying Landslide and Mudflow Hazards**

General slope stability is determined by a number of factors such as the angle of the slope, vegetative cover, wildland fire, bedrock, soil, seismic activity, precipitation, groundwater, erosion, and human alterations to land such as hillside grading activities. Slopes may be in temporary equilibrium until one of the aforementioned factors is modified by natural or human activity resulting in an unstable condition and potential slope failure.



**Figure 15 - Debris generated during the Flash Floods (ca. 1955)**

A landslide is defined as a downward and outward movement of soil and rock. Such a movement occurs when steep slopes are destabilized by excess water accumulation in the soil, the addition of excess weight to the top of a slope, the removal of support from the bottom of a slope, or a combination of the above. The force

of rocks, soils, or other debris moving down a slope can devastate anything in its path as illustrated in Figure 15.

Mudflows, often referred to as "debris flows" or "mudslides" are caused by sustained and intense rain fall that is accompanied by rocks, vegetation and other debris. These are fast moving down slope flows and can cause severe damage. The rapid movement and sudden arrival of debris flows pose a hazard to life and property during and immediately following the triggering rainfall. In order to trigger "debris flows" a storm must have a critical combination of rainfall intensity and duration leading to saturation of the hill slope soils, generation of positive pore fluid pressures within the soil and ultimately, slope failure.

#### **Profiling Landslide and Mudflow Hazards**

##### **Location and Extent**

Landslides are a common occurrence in the Santa Cruz Mountains. Intense winter storms, high rainfall amounts, and steep terrain are all conducive to land sliding. Earthquake activity can exacerbate this hazard. The 1906 San Francisco earthquake set off dozens of large landslides in the Santa Cruz Mountains, some of which claimed human lives.

Capitola's topography ranges in steepness from 0 percent slope (flat) to more than 50 percent slope. The majority of the City falls into a relatively flat category. The primary area of concern for the City of Capitola with regard to landslides is the land above Soquel Creek and below Wharf Road. Exhibit 15 - *Topographic Relief* categorizes the City of Capitola and surrounding areas based on the percentage of slope. Areas on the map most susceptible to landslides and mudflows have slopes greater than 50% and are colored red. The majority of these areas are

coastal bluffs, escarpments of decomposed rock or soil resulting from erosion or faulting, with a vertical elevation of at least ten feet. In addition to the coastal bluffs, there are areas along Soquel Creek, Nobel Gulch, and Tannery Gulch that have steep slopes that could be susceptible to landslides and mudflows.

Coastal bluff areas within Capitola that have steep topography include Cliff Drive and surrounding open space, residential areas in the City's Jewel Box neighborhood, as well as shoreline residences and open space areas of the Depot Hill neighborhood, between the Village and New Brighton State Park.

### Past Occurrences

Table 32: *Landslides and Mudflows* identifies past landslide and mudflow events in Santa Cruz County from 2005 through 2011.

**Table 32: Landslides and Mudflows**

Date	Location	Magnitude	County-wide Property Damage
3/22/2005	Valencia Road in Aptos	Mudflow	\$150,000
3/22/2005	Scotts Valley	Landslide	\$375,000
3/22/2005	Santa Cruz County	Landslide	\$1,000,000
10/13/2009	Highway 84	Landslide	\$10,000
12/19/2010	Old San Jose Road	Mudflow	\$4,000

National Climatic Data Center <http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms>

In addition to the past landslide and mudflow events listed above, coastal storms can contribute to landslide and mudflow. Historical events describing coastal storms of this nature can be found in the flood profile.

### Probability of Future Occurrence

Although nature caused landslides are beyond control, most recent landslides in the Santa Cruz Mountains have been caused by a combination of human activity and natural factors. Human activities that may destabilize slopes include logging, woodland conversion, road building, housing construction and any activity which alters normal drainage patterns. Whether or not any of these activities will trigger landslides depends on the existing natural conditions. Some soil and rock types are more prone to land sliding than others. In Capitola, areas of greatest concern are located within drainage courses like Soquel Creek, Noble Gulch, and Tannery Gulch. Landslides within these drainages could occur in areas of steep topography, if conditions allow.

### Climate Change Considerations

Anticipating that precipitation regimes may change in the future as a result of climate change, there may be greater opportunity for landslides and mudflows. Current climate change science indicates that storms may become less frequent and more intense, which could result in greater amounts of runoff at higher velocities within the various drainages in Capitola. With greater amounts of precipitation underlying soils and rock units could become saturated quicker increasing the risk for landslides. In addition, if water runoff is occurring at greater velocities, there is greater potential for erosion, which could induce landslides and mudflows within Capitola.

### Vulnerability/Risk Assessment

Table 33: *Topographic Relief Associated with Capitola Critical Facilities* identifies the critical facilities located within the increasing slope categories identified on Exhibit 15: Topographic Relief. The greater the slope, the more susceptible the area is to a landslide or mudflow. The replacement, contents, and potential loss values have been calculated for each facility located in a sloped area. As stated above, the greater the slope, the more susceptible the area is to a landslide or mudflow. Therefore, those facilities that are located in areas with a 50% slope or

greater are most susceptible. The total potential loss for the facilities located in a 50% slope or greater area is \$30,800,000. There is less of a chance that facilities located in the 30-50% slope areas will be impacted by a landslide or mudflow, but it is still possible. Potential losses for facilities located in the 30-50% slope range could reach \$28,000,000. If a catastrophic, rare landslide or mudflow event occurred, it could have the potential to affect the 0-15% and 15-30% sloped areas. Facilities located in these areas have the total potential loss of \$61,155,000 and \$36,800,000 respectively. If all of Capitola's critical facilities susceptible to landslides and mudflows are completely destroyed, the replacement cost is estimated to be 61,155,000.

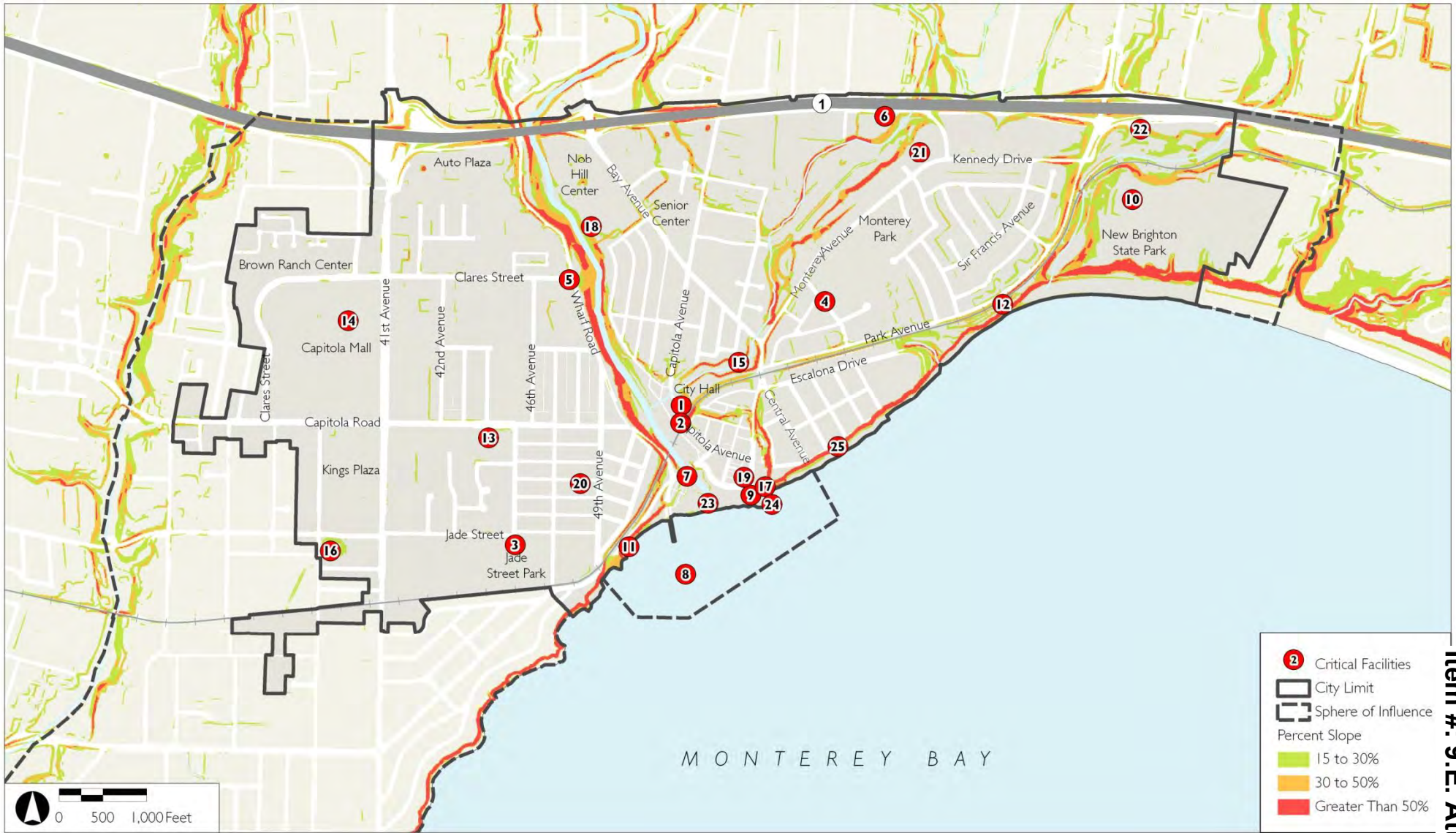
**Table 33: Topographic Relief Associated with Capitola Critical Facilities**

Map #	Facility	Topographic Relief (Slope)				Replace-ment Value	Contents Value	Potential Loss
		0-15% (no color)	15-30% (green)	30-50% (orange)	>50% (red)			
1	City Hall/Emergency Operations Center	X	X	X	X	\$4,000,000	\$750,000	\$4,750,000
1	Capitola Police Station	X	X	X	X	\$2,000,000	\$750,000	\$2,750,000
2	Central Fire Station #4	X				\$1,000,000	\$100,000	\$1,100,000
3	Jade Street Community Center -- Emergency Shelter	X				\$2,000,000	\$200,000	\$2,200,000
4	New Brighton Gym -- Emergency Shelter	X				\$2,500,000	\$75,000	\$2,575,000
4	New Brighton School - - Back-up Emergency Shelter	X				\$4,000,000	\$700,000	\$4,700,000
5	Capitola Library -- Backup Emergency Operations Center	X				\$2,000,000	\$700,000	\$2,700,000
6	Capitola Corporation Yard	X				\$1,000,000	\$500,000	\$1,500,000
7	Stockton Avenue Bridge	X	X	X	X	\$7,000,000	N/A	\$7,000,000
9	Capitola Beach Sea Wall	X				\$3,000,000	N/A	\$3,000,000
10	New Brighton State Park--staging area for emergency response	X				N/A	N/A	N/A
11	Cliff Drive -at risk arterial (sea wall and road)	X	X	X	X	\$5,000,000	N/A	\$5,000,000
12	Park Avenue-at risk arterial (sea wall and road)	X	X	X	X	\$3,000,000	N/A	\$3,000,000
13	Police Communications Antenna-Capitola Mall	X				\$100,000	N/A	\$100,000
14	Police Communications Antenna-AAA Building	X				\$100,000	N/A	\$100,000
15	Noble Gulch Storm Pipe	X	X	X	X	\$5,500,000	N/A	\$5,500,000

Table 33: Topographic Relief Associated with Capitola Critical Facilities

Map #	Facility	Topographic Relief (Slope)				Replace-ment Value	Contents Value	Potential Loss
		0-15% (no color)	15-30% (green)	30-50% (orange)	>50% (red)			
16	38th Avenue Drainage Facility	X	X			\$1,000,000	\$300,000	\$1,300,000
17	Capitola Pump Station-Esplanade Park	X	X	X	X	\$2,000,000	\$800,000	\$2,800,000
18	Soquel Pump Station	X	X	X		\$3,000,000	\$1,700,000	\$4,700,000
19	Lawn Way Storm Drain Pump Station	X				\$200,000	N/A	\$200,000
20	SCWD Treatment Plant, Garnet Street	X				\$400,000	\$700,000	\$1,100,000
21	SCWD Treatment Plant, Monterey Avenue	X				\$10,000	\$70,000	\$80,000
22	SCWD MacGregor Booster Pumping Station	X	X	X		Not Constructed	N/A	N/A
23	Capitola Beach Flume	X				\$2,000,000	N/A	\$2,000,000
24	Capitola Beach Jetty	X				\$3,000,000	N/A	\$3,000,000
25	Grand Avenue Cliffs	X				N/A	N/A	N/A
	<b>Total Potential Losses</b>					<b>\$53,810,000</b>	<b>\$7,345,000</b>	<b>\$61,155,000</b>

TOPOGRAPHIC RELIEF  
EXHIBIT 15



Source: City of Capitola, 2010; Santa Cruz County, 2012.

Item #: 9.E. Attach 1.pdf

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### **3.4.10 Expansive Soils**

The Technical Advisory Committee initially identified expansive soils as a hazard of risk to the City of Capitola with limited hazard planning consideration. Based on the lack of past occurrences and minimal risk of future impacts from expansive soils, the Hazard Mitigation Planning Team decided not to include a profile for expansive soils. This hazard may be re-visited in future updates to this Plan.

## **3.5 SUMMARY OF VULNERABILITY**

Table 34: Risk Assessment Summary Table shows a summary of critical facilities that intersect with hazard areas in the City of Capitola. Those facilities that intersect with a hazard area are indicated with a “Y” and a red shaded cell. Facilities that do not fall within the hazard area are designated by an “N” and a green shaded cell. The Capitola Beach Sea Wall and New Brighton State Park were not intersected (“NA”) with the liquefaction potential hazard area because they fall outside the hazard area boundary.

As stated in Section 3.3 above, hazard and critical facility overlays were not conducted for wildfire, windstorm, drought, and earthquake. Overlays were conducted for erosion, flood, hazardous materials, liquefaction, landslide/mudslide, and tsunami. More detailed findings from this analysis can be found in the sections below.

### **3.5.1 Significant Hazards**

The vulnerability assessments within each hazard profile are used to understand the varying levels of risk to the City of Capitola. Based on these assessments, the planning team concluded the two hazards of greatest concern to the City of Capitola are **coastal storm/flooding** and **tsunami**. For both of these hazards, 12 of the City’s 25 critical facilities fall within the 100 year flood zone and the tsunami inundation zone. **Liquefaction** also poses a significant threat to the City. Nine critical facilities fall within the Very High and High liquefaction potential zones, 13 facilities fall within the low liquefaction potential zone, meaning that 22 of the City’s 25 critical facilities are at risk to damage caused by liquefaction. **Landslide and mudslide** also pose a risk to the City, with 12 facilities falling within the 30% to greater than 50% slope range.

**Table 34: Risk Assessment Summary Table**

Facility	Beach Erosion	Cliff Erosion	Flood	Hazardous Materials			Liquefaction Potential				Topo (Slope)				Tsunami	
			100 yr	intersect	within 500'	within 1000'	Very High (A)	High (B)	Low (D)	Undefined (Unkn)	0-15% (no color)	15-30% (green)	30-50% (orange)	>50% (red)		
1 City Hall/Emergency Operations Center	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y
1 Capitola Police Station	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y
2 Central Fire Station #4	N	N	Y	N	N	N	N	Y	N	N	Y	N	N	N	N	Y
3 Jade Street Community Center -- Emergency Shelter	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N
4 New Brighton Gym Emergency Shelter	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N
4 New Brighton School Backup Emergency Shelter	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N
5 Capitola Library Backup Emergency Operations Center	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N
6 Capitola Corporation Yard	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N
7 Stockton Avenue Bridge	Y	N	Y	N	N	N	Y	N	N	N	Y	Y	Y	Y	Y	Y



**Table 34: Risk Assessment Summary Table**

Facility	Beach Erosion	Cliff Erosion	Flood	Hazardous Materials			Liquefaction Potential				Topo (Slope)				Tsunami	
			100 yr	intersect	within 500'	within 1000'	Very High (A)	High (B)	Low (D)	Undefined (Unkn)	0-15% (no color)	15-30% (green)	30-50% (orange)	>50% (red)		
8	Capitola Wharf	N	N	Y	N	N	N	NA	NA	NA	NA	N	N	N	N	Y
9	Capitola Beach Sea Wall	N	N	Y	N	N	N	Y	N	N	N	Y	N	N	N	Y
10	New Brighton State Park--staging area for emergency response	N	N	N	N	N	N	NA	NA	NA	NA	Y	N	N	N	N
11	Cliff Drive -at risk arterial (sea wall and road)	N	Y	N	N	N	N	N	N	Y	N	Y	Y	Y	Y	Y
12	Park Avenue-at risk arterial (sea wall and road)	N	Y	N	N	N	N	N	N	Y	N	Y	Y	Y	Y	N
13	Police Communications Antenna-Capitola Mall	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N
14	Police Communications Antenna-AAA Building	N	N	N	N	Y	Y	N	N	Y	N	Y	N	N	N	N
15	Noble Gulch Storm Pipe	N	N	Y	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y
16	38th Avenue Drainage Facility	N	N	N	N	N	Y	N	N	Y	N	Y	Y	N	N	N
17	Capitola Pump Station-Esplanade Park	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y

**Table 34: Risk Assessment Summary Table**

Facility	Beach Erosion	Cliff Erosion	Flood	Hazardous Materials			Liquefaction Potential				Topo (Slope)				Tsunami
			100 yr	intersect	within 500'	within 1000'	Very High (A)	High (B)	Low (D)	Undefined (Unkn)	0-15% (no color)	15-30% (green)	30-50% (orange)	>50% (red)	
18 Soquel Pump Station	N	N	Y	N	N	Y	Y	N	N	N	Y	Y	Y	N	N
19 Lawn Way Storm Drain Pump Station	Y	N	Y	N	N	N	Y	N	N	N	Y	N	N	N	Y
20 Soquel Creek Water District Treatment Plant, Garnet Street	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N
21 Soquel Creek Water District Treatment Plant, Monterey Avenue	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N
22 Soquel Creek Water District MacGregor Booster Pumping Station	N	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N	N
23 Capitola Beach Flume	N	N	Y	N	N	N	Y	N	N	N	Y	N	N	N	Y
24 Capitola Beach Jetty	N	N	Y	N	N	N	N	N	N	Y	Y	N	N	N	Y
25 Grand Avenue Cliffs	N	Y	N	N	N	N	N	N	N	Y	Y	N	N	N	N
Y denotes that the critical facility intersects the hazard layer			N denotes that the critical facility does not intersect the hazard layer				NA denotes that the hazard layer is not available within the geographic extent of the analysis								

### 3.5.2 Facilities at Most Risk

The critical facilities listed in Table 35: Capitola Critical Facilities At Risk are the most at risk to hazard events in the City of Capitola. They fall within multiple hazard zones making them susceptible to future damage from a variety of potential events.

**Table 35: Capitola Critical Facilities At Risk**

Facility	Erosion	Flood	HAZMAT	Liquefaction	Slope	Tsunami
Stockton Avenue Bridge	Y	Y	N	Y	Y	Y
Capitola Pump Station-Esplanade Park	Y	Y	N	Y	Y	Y
Cliff Drive	Y	N	N	Y	Y	Y
Noble Gulch Storm Pipe	N	Y	N	Y	Y	Y
Park Avenue	Y	N	N	Y	Y	N
Soquel Pump Station	N	Y	Y	Y	Y	N

### 3.5.3 Potential Losses

Table 36: Most Costly Capitola Critical Facilities identifies the critical facilities with the greatest replacement value (combination of building replacement and contents value), in the City of Capitola. Should these facilities be completely destroyed by a hazard event, their replacement will be the most costly compared to other identified critical facilities.

**Table 36: Most Costly Capitola Critical Facilities**

Facility	Replacement Value
Capitola Wharf	\$7,300,000
Stockton Avenue Bridge	\$7,000,000
Noble Gulch Storm Pipe	\$5,500,000
Cliff Drive	\$5,000,000
City Hall/Emergency Operations Center	\$4,750,000
New Brighton School-Emergency Backup Shelter	\$4,700,000
Soquel Pump Station	\$4,700,000

Out of these facilities, the Stockton Avenue Bridge, Cliff Drive, the Noble Gulch Storm Pipe, and the Soquel Pump Station are also facilities that are most susceptible to hazard events in the City of Capitola.

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# Chapter Four – Mitigation Actions

Hazard mitigation strategies are used to reduce the hazard impacts on large employment and industrial centers, public infrastructure, and critical facilities. This section of the City of Capitola Hazard Mitigation Plan is derived from an in-depth review of the vulnerabilities and capabilities described in this Plan. Mitigation actions from the Santa Cruz County Hazard Mitigation Plan and City of Santa Cruz Hazard Mitigation Plan were also reviewed so that the City of Capitola can support these actions. Overall, the actions represent Capitola's risk-based approach for reducing and/or eliminating the potential losses as identified in the Vulnerability Assessment section of each Hazard Profile.

## 4.1 HAZARD MITIGATION OVERVIEW

### FEMA'S National Flood Insurance Program

In 1968, the US Congress created the National Flood Insurance Program (NFIP). Participation in the NFIP by a Community is voluntary; however, in order to receive funding from FEMA, a Community is required to participate in the program.

The City of Capitola participates in the NFIP and development in the floodplain is permitted according to Title 17.50 Floodplain District of the Municipal Code. Ordinance No. 970 adopted on May 10, 2012 amended the Title 17.50 floodplain management regulations per FEMA guidance and for consistency with the 2010 updated digital flood insurance rate maps. The ordinance is administered, implemented, and enforced by the City's Building Official as the designated floodplain administrator. The Building Official grants or denies building permits in accord with Title 17.50 Floodplain District of the Municipal Code.

The Community Rating System (CRS) is a voluntary part of the National Flood Insurance Program that seeks to coordinate all flood-related activities, reduce flood losses, facilitate accurate insurance rating, and promote public awareness of flood insurance by creating incentives for a community to go beyond minimum discounts. CRS ratings are on a 10-point scale (from 10 to 1, with 1 being the best rating), with residents of the community who live within FEMA's Special Flood Hazard Areas (SFHA) receiving a 5% reduction in flood insurance rates for every Class improvement in the community's CRS rating. The City of Capitola does not currently participate in the Community Rating System.

Repetitive Loss Properties: At this time, the City of Capitola is not aware of any Repetitive Loss Properties under the National Flood Insurance Program. The City's Floodplain Administrator has contacted FEMA to verify this information.

### Hazard Mitigation Goals

The plan goals, presented in the Mitigation Priorities and Goals section of Chapter 1, serve as basis for direction to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from hazards. The Plan goals guide the direction of future activities aimed at reducing risk and preventing loss from natural hazards. The goals also serve as checkpoints as agencies and organizations begin implementing mitigation action items.

The hazard mitigation actions identified below list those activities which the City of Capitola will utilize to reduce their risk to potential hazards. These mitigation actions were identified through data collection and research, collaboration with the Technical Advisory Committee, and public input. Some of these actions may be eligible for funding through Federal and State grant programs, and other funding sources as made available to the City. The

mitigation actions are intended to address the comprehensive range of identified hazards. Some actions may address risk reduction from multiple hazards.

### Hazard Mitigation Prioritization

Through discussion and self analysis, the TAC used the STAPLE/E (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) criteria, as described in Table 37: STAPLE/E Review and Selection Criteria, when considering and prioritizing the most appropriate mitigation alternatives for the City. This methodology (as endorsed by FEMA) requires that social, technical, administrative, political, legal, economic, and environmental considerations be taken into account when reviewing potential actions to undertake. This process was used to help ensure that the most equitable and feasible actions would be undertaken based on the City's unique capabilities.

To develop a consensus priority ranking for the mitigation actions, each representative at the third milestone meeting was given ten votes to identify their highest priority mitigation actions. The votes were tallied to identify the highest priority mitigation actions and results incorporated into the final mitigation action priority rankings.

**Table 37: STAPLE/E Review and Selection Criteria**

<b>Social</b>
<ul style="list-style-type: none"> <li>• Is the proposed action socially acceptable to the jurisdiction and surrounding community?</li> <li>• Are there equity issues involved that would mean that one segment of the jurisdiction and/or community is treated unfairly?</li> <li>• Will the action cause social disruption?</li> </ul>
<b>Technical</b>
<ul style="list-style-type: none"> <li>• Will the proposed action work?</li> <li>• Will it create more problems than it solves?</li> <li>• Does it solve a problem or only a symptom?</li> <li>• Is it the most useful action in light of other jurisdiction goals?</li> </ul>
<b>Administrative</b>
<ul style="list-style-type: none"> <li>• Can the jurisdiction implement the action?</li> <li>• Is there someone to coordinate and lead the effort?</li> <li>• Is there sufficient funding, staff, and technical support available?</li> <li>• Are there ongoing administrative requirements that need to be met?</li> </ul>
<b>Political</b>
<ul style="list-style-type: none"> <li>• Is the action politically acceptable?</li> <li>• Is there public support both to implement and to maintain the project?</li> </ul>
<b>Legal</b>
<ul style="list-style-type: none"> <li>• Is the jurisdiction authorized to implement the proposed action?</li> <li>• Are there legal side effects? Could the activity be construed as a taking?</li> <li>• Will the jurisdiction be liable for action or lack of action?</li> <li>• Will the activity be challenged?</li> </ul>
<b>Economic</b>
<ul style="list-style-type: none"> <li>• What are the costs and benefits of this action?</li> <li>• Do the benefits exceed the costs?</li> <li>• Are initial, maintenance, and administrative costs taken into account?</li> <li>• Has funding been secured for the proposed action? If not, what are the potential funding sources (public, non-profit, and private)?</li> <li>• How will this action affect the fiscal capability of the jurisdiction?</li> <li>• What burden will this action place on the tax base or local economy?</li> <li>• What are the budget and revenue effects of this activity?</li> </ul>

**Table 37: STAPLE/E Review and Selection Criteria**

<ul style="list-style-type: none"> <li>• Does the action contribute to other jurisdiction goals?</li> <li>• What benefits will the action provide?</li> </ul>
<b>Environmental</b>
<ul style="list-style-type: none"> <li>• How will the action affect the environment?</li> <li>• Will the action need environmental regulatory approvals?</li> <li>• Will it meet local and state regulatory requirements?</li> <li>• Are endangered or threatened species likely to be affected?</li> </ul>

## Hazard Mitigation Benefit-Cost Review

FEMA requires local governments to analyze the benefits and costs of a range of mitigation actions that can reduce the effects of each hazard within their community. Benefit-cost analysis is used in hazard mitigation to show if the benefits to life and property protected through mitigation efforts exceed the cost of the mitigation activity. Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster related damages later. The analysis is based on calculating the frequency and severity of a hazard, avoided future damages, and risk.

A hazard mitigation plan must demonstrate that a process was employed that emphasized a review of benefits and costs when prioritizing the mitigation actions. The benefit-cost review must be comprehensive to the extent that it can evaluate the monetary as well as the non-monetary benefits and costs associated with each action. The benefit-cost review should at least consider the following questions:

- How many people will benefit from the action?
- How large an area is impacted?
- How critical are the facilities that benefit from the action (which is more beneficial to protect, the fire station or the administrative building)?
- Environmentally, does it make sense to do this project for the overall community?

For the Capitola LHMP, the Technical Advisory Committee used these questions to determine the appropriateness of mitigation actions. Those actions that did not have adequate benefits were excluded from the preliminary list of mitigation actions.

## 4.2 HAZARD MITIGATION ACTIONS

The process used by the Capitola Technical Advisory Committee to identify hazard mitigation actions for this Plan included the following:

- Review of the 2012 Risk Assessment presented in Chapter 3 of this plan;
- Review of the 2012 Capabilities Assessment presented in Chapter 5 of this plan;
- Review of the Santa Cruz County and City of Santa Cruz Hazard Mitigation Plan mitigation actions;
- Team discussion of new concerns/ issues that need to be addressed to reduce hazards to critical facilities.

Table 38: Capitola Hazard Mitigation Actions identifies the primary hazard, mitigation action priority, proposed mitigation action, City department responsible for implementation, the anticipated funding source(s), and the target completion date.

Potential Funding Source(s) identified in the table include the following:

PDM	Pre-Disaster Mitigation (FEMA)
HMGP	Hazard Mitigation Grant Program (FEMA)
CDBG	Community Development Block Grant (CA Department of Housing & Community Development)
FMA	Flood Mitigation Assistance (FEMA)
FHA	Federal Highway Administration
CalEMA	California Emergency Management Agency
Caltrans	California Department of Transportation



**Table 38: Capitola Hazard Mitigation Actions**

Mitigation Action	Responsible Department	Potential Funding Source(s) (see page 110)	Target Completion Date	Priority
<b>1. Earthquake / Liquefaction Hazard Related Actions</b>				
A. Continue to enforce the requirements of the Geologic Hazards District (Chapter 17.48) of the Capitola Municipal Code which requires the assessment of geologic hazards by a registered geologist or professional engineer for all new development projects. The geologic hazards identified through this assessment process are then mitigated by avoidance or through measures designed by civil engineers using the California Building Code.	Community Development, Public Works, and Building	Staff budget, Review Fees, Development Impact Fees	Ongoing	Low
B. Continue to enforce the most current versions of both the California Building Code (CBC) and the California Building Standards with regards to seismicity, including requiring engineering and liquefaction studies for all potentially affected development.	Public Works and Building	Staff budget	Ongoing	Low
C. In cooperation with other agencies, conduct seismic evaluations of all City owned critical facilities (including roadways, water, sewer, storm drains and emergency use facilities) and coordinate with other agencies to evaluate non-city owned critical facilities. Seek funding sources to assist in necessary upgrades of these critical facilities.	Public Works and Other Agencies	PDM, HMGP, Staff budget, and General Fund	2015	Low
D. Work with Caltrans and other relevant agencies to evaluate and retrofit the structural integrity of all bridges to ensure their safety during a seismic event.	Public Works	PDM, HMGP, Staff budget	Ongoing	Low
E. Continue training appropriate plan check staff on seismic requirements for new and existing structures.	Building	Staff budget	Ongoing	Low
<b>2. Coastal Storm / Flooding Hazard Related Actions</b>				
A. Evaluate the likelihood of debris flow impacts to the Stockton Avenue bridge during a catastrophic flooding event.	Public Works	FHA, FMA, Staff budget	2017	High

**Table 38: Capitola Hazard Mitigation Actions**

Mitigation Action	Responsible Department	Potential Funding Source(s) (see page 110)	Target Completion Date	Priority
B. Improve the Noble Gulch storm drain facilities to protect against flooding within the Capitola Village.	Public Works and Community Development	PDM, HMGP, General Fund	2015	High
C. Relocate or elevate critical facilities (e.g. City hall, police, fire, etc.) above the level of the 100-year flood elevation.	Public Works and Community Development	PDM, HMGP, General Fund	2015	High
D. Continue to implement the Soquel Creek Lagoon Management Plan.	Public Works and Community Development	PDM, HMGP, FMA, Staff budget	Ongoing	Medium
E. Participate in the National Weather Service (NWS) Storm Ready Program	Community Development and Public Works	Staff budget, General Fund	Ongoing	Medium
F. Assist in the planning and/or improvement of infrastructure (sewers) and facilities to help minimize flooding impacts, particularly in critical flood-prone areas (e.g. Capitola Village).	Public Works and Community Development in coordination with the County Sanitation District	FHA, PDM	Ongoing	Low
G. Continually monitor and review CA State Water Resources Control Board regulations and permit requirements to ensure consistency with city policies and regulations. This includes on-site retention of stormwater runoff from impervious surfaces and the implementation of Low Impact Development (LIDs) standards on new development.	Public Works and Community Development	Staff budget	Ongoing	Low
H. Limit development and monitor conditions of development and grading permits to prevent sedimentation in natural channels and wetlands.	Community Development	Staff budget	Ongoing	Low
I. Develop more accurate GIS maps of the City's drainage system in coordination with future updates of the Capitola Stormwater Management Program.	Public Works and Community Development	CalEMA, General Fund, Staff budget	Ongoing	Low
J. In coordination with the Santa Cruz County Public Works & Flood Control & Water Conservation District (Zone 5), evaluate the effectiveness of current policies and ordinances to ensure that storm water runoff from impervious surfaces does not contribute to flooding.	Public Works and Community Development	Staff budget	Ongoing	Low

**Table 38: Capitola Hazard Mitigation Actions**

Mitigation Action	Responsible Department	Potential Funding Source(s) (see page 110)	Target Completion Date	Priority
K. Continually monitor and review FEMA’s National Flood Insurance Program (NFIP) requirements to ensure the City’s floodplain management regulations are in compliance.	Public Works and Community Development	Staff budget	Ongoing	Low
L. Participate in the FEMA NFIP Community Rating System (CRS).	Community Development	Staff budget	2017	Low
M. Work in coordination with the Santa Cruz County Public Works & Flood Control & Water Conservation District (Zone 5) to develop and disseminate public education materials on flood protection and mitigation by working collaboratively with community groups, non-governmental organizations and the local media.	Community Development	General Fund	Ongoing	Low
N. Review and update the city’s existing ordinances as they relate to storm / flooding hazards, consistent with the risks identified in this LHMP.	Community Development	Staff budget, PDM, HMGP, General Fund	2015	Low
<b>3. Drought Hazard Related Actions</b>				
A. Work in coordination with the City of Santa Cruz and the Soquel Creek Water District to implement water conservation strategies that maximize the use of existing water resources.	Community Development	Staff budget	Ongoing	Low
B. Work in coordination with the Soquel Creek Water District to promote increased groundwater recharge and conjunctive use.	Community Development	Staff budget, Prop 84 – IRWMP	Ongoing	Low
C. Coordinate with the Soquel Creek Water District and City of Santa Cruz to inform public of water conservation restrictions and drought conditions.	Community Development	Staff budget	Ongoing	Low
<b>4. Windstorm Hazard Related Actions</b>				
A. Coordinate with Pacific Gas & Electric to implement an ongoing tree trimming program for trees located in close proximity to overhead power lines.	Public Works	Staff budget, PG&E	Ongoing	Low

**Table 38: Capitola Hazard Mitigation Actions**

Mitigation Action	Responsible Department	Potential Funding Source(s) (see page 110)	Target Completion Date	Priority
B. Establish a working relationship with the NWS Decision Support program to be advised of upcoming weather conditions in a manner that enables smart decisions.	Police Department	Staff budget	Ongoing	Low
<b>5. Coastal Erosion/ Bluff Failure Hazard Related Actions</b>				
A. Work in close coordination with state and local agencies and organizations to protect and preserve the coastline and its coastal bluffs through restoration efforts to help ensure safe coastal access and the protection of adjacent infrastructure and facilities. These efforts may include beach replenishment, coastal bluff protection, seawall construction, and other appropriate measures.	Public Works, Community Development, County Sanitation District	Staff budget	Ongoing	Medium
<b>6. Tsunami Hazard Related Actions</b>				
A. Continue implementation of Tsunami Ready Program	Community Development, Public Works, Police	Staff budget	Ongoing	Medium
B. Implement a public communication system (e.g. siren) to warn the public of a potential tsunami threat.	Community Development, Public Works, Police	Staff budget	2017	Medium
C. Support the timely and accurate update of tsunami inundation maps within the Monterey Bay area. Then integrate the new tsunami inundation maps into the risk assessment of this Local Hazard Mitigation Plan	Community Development, Public Works, Police	Staff budget	Ongoing	Low
D. Continue to work collaboratively with relevant agencies and organizations to investigate tsunami threat to the City based on the best available information.	Community Development, Public Works, Police	Staff budget	Ongoing	Low
<b>7. Hazardous Materials Related Actions</b>				
A. Coordinate with the Santa Cruz County Department of Environmental Health Services, on enforcement of State and local statutes and regulations pertaining to hazardous materials/ waste storage, use, and disposal.	Community Development, Public Works, Police, Fire	Staff budget	Ongoing	Low
B. Support staff training and education requirements regarding emergency response procedures associated with transportation-based hazardous materials releases.	Community Development, Public Works, Police, Fire	Staff budget	Ongoing	Low

**Table 38: Capitola Hazard Mitigation Actions**

Mitigation Action	Responsible Department	Potential Funding Source(s) (see page 110)	Target Completion Date	Priority
C. Continue to coordinate the Urban Area Security Initiative to enhance preparedness efforts.	Police	UASI, Homeland Security Grant	Ongoing	Not Ranked*
<b>8. Fire Hazard Related Actions</b>				
A. Evaluate opportunities for fuel reduction projects associated with invasive species hazards.	Fire, Public Works	Staff Budget	Ongoing	Not Ranked*
B. Coordinate with the Fire District and Department of Corrections to create fuel reduction zones near properties at risk, shaded fuel breaks, and clean up areas prone to ground fuel litter common with invasive species habitat (i.e. Eucalyptus)	Fire, Public Works	Staff Budget	Ongoing	Not Ranked*
C. Continue to maintain cooperative fire protection and fire prevention agreements with the Central Fire Protection District and other relevant agencies.	Community Development, Public Works, Police, Fire	Staff budget	Ongoing	Low
D. Increase visibility of road signs and address markings on businesses and residences to reduce response times.	Public Works, Building	Public Works	Ongoing	Low
E. Identify inadequate access roadways. Develop a program to address inadequacies.	Community Development, Public Works, Fire, Police	PDM, HMGP, General Fund	Ongoing	Low
F. Promote land use planning and implement building codes to reduce incidence of human-caused wildfires especially in very high fire hazard areas.	Community Development, Building, Fire	Staff budget	Ongoing	Low
G. Implement building codes relevant to fire protection in new development or major renovations. (i.e. built-in fire extinguishing and fire alarm systems)	Community Development, Building, Fire	Staff budget	Ongoing	Low
H. Work cooperatively with Central Fire Protection District, CalFire, and other relevant agencies to promote the implementation and awareness of fire prevention programs.	Community Development, Fire	Staff budget	Ongoing	Low
<b>9. Landslide/ Mudflow Hazard Related Actions</b>				
A. Continue to require that geologic/engineering reports be prepared for any proposed construction near landsliding and require mitigation of landslide hazards before issuing any building or grading permits.	Community Development, Building, Public Works	Staff budget	Ongoing	Low

**Table 38: Capitola Hazard Mitigation Actions**

Mitigation Action	Responsible Department	Potential Funding Source(s) (see page 110)	Target Completion Date	Priority
<b>10. Multi-Hazard Related Actions</b>				
B. Coordinate hazard mitigation progress/efforts with the Santa Cruz County Office of Emergency Services and other agencies and cities within Santa Cruz County.	Community Development, Public Works, Police, Fire, City Manager	Staff budget	Ongoing	Medium
C. Continue to work with Santa Cruz 911 and other relevant agencies to maintain a coordinated and effective emergency communication system.	Community Development, Public Works, Police, Fire	Staff budget	Ongoing	Low
D. Continue to update and enhance mapping data and the City's GIS for all hazards.	Information Technology	General Fund	Ongoing	Low
E. Verify the replacement value of City-owned critical facilities and coordinate with other agencies for non city-owned facilities to improve the risk assessment within this plan.	Public Works, Community Development, Finance	General Fund	2015	Low
F. Work with the appropriate cellular phone service providers to ensure there is always adequate cellular services to critical facilities within the City.	Police, Information Technology	Staff budget	Ongoing	Low
G. Consolidate the City's Local Hazard Mitigation Plan into the Safety Element of the General Plan.	Community Development	General Fund, DRI	2015	Low
H. Integrate the results of the Monterey Bay Sea Level Rise Study into the Local Hazard Mitigation Plan risk assessment and the General Plan Safety Element.	Community Development	DRI	2015	Low
I. As part of the General Plan Update process, develop a plan to address climate change/ climate adaptation issues within the City and its surroundings.	Community Development	Staff budget	Ongoing	Low
J. Protect and preserve the coastline through permit review and continue to review coastal development for conformance with applicable City regulations (e.g. geologic, flood).	Community Development, Public Works	Staff budget	Ongoing	Low
K. Review and update the city's existing ordinances as they relate to hazards and risks identified in this LHMP.	Community Development	Staff budget	Ongoing	Low

\*These mitigation actions were added after mitigation action ranking was conducted.

### 4.3 CAPABILITIES ASSESSMENT

This capability assessment is designed to identify existing local agencies, personnel, planning tools, public policy and programs, technology, and funds that have the capability to support hazard mitigation activities and strategies outlined in this LHMP. To create this capability assessment, the Technical Advisory Committee collaborated to identify current local capabilities and mechanisms available to the City of Capitola for reducing damage from future natural hazard events.

#### Key Resources

The City of Capitola and the County of Santa Cruz have several key departments with resources to support the implementation of mitigation actions. These departments offer a variety of planning, technical, policy, and staffing resources as summarized in Table 39: Capitola Capabilities Assessment:

**Table 39: Capitola Capabilities Assessment**

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
<b>Community Development Department</b>			<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevIntro.html</a>
Personnel Resource	Community Development Director	Leads the development and implementation of this Local Hazard Mitigation Plan.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevIntro.html</a>
Policy Resource	Zoning Ordinance	The Zoning Ordinance is the main tool to implement the City’s General Plan. It sets land use regulations and the zoning map for the City. Hazard mitigation related zones include the floodplain district and the geologic hazards district. Mitigation actions outlined in this Plan can be adopted in the form of land use/development regulations.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevZOrdin.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevZOrdin.html</a>
Policy Resource	Building Code/Fire Code	International Building Code, International Fire Code	<a href="http://qcode.us/codes/capitola/">http://qcode.us/codes/capitola/</a>
Policy Resource	Code Enforcement	Each zoning district has specific zoning codes and guidelines that were developed to enhance and protect each district. The Community Development Department enforces and carries out these guidelines.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevZCode.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevZCode.html</a>
Technical and Personnel Resources	GIS Program	GIS creates an updated zoning map and General Plan map and also maintains an interactive parcel map that residents can use to determine if they are located in a floodplain, floodway, or redevelopment district.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevZMaps.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevZMaps.html</a>

**Table 39: Capitola Capabilities Assessment**

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	General Plan	Principal policy document that guides conservation, development, and change in the City. Identifies City programs and policies as they pertain to land use, public services, housing, natural resources, and safety. Hazard data and mitigation actions described in this Plan can be incorporated into the General Plan. Capitola’s General Plan is currently being updated.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html</a>
Policy Resource	Housing Program	The City offers numerous programs to help residents maintain safe housing.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevHousing.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevHousing.html</a>
Policy and Plan Resource	Capital Improvement Program	The Capital Improvement Program should be informed by the strategies identified and prioritized in this plan.	N/A
Plan Resource	Flood Management Plan	The City manages floodplain per Chapter 17.50 Floodplain Management of the Capitola Municipal Code.	N/A
Personnel Resource	Planning Commission	The Planning Commission meets once per month to discuss planning capabilities in Capitola. They review and comment on the LHMP.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevPlanCom.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevPlanCom.html</a>
Plan Resource	2007 Economic Development Strategic Plan	The underlying belief of the Economic Development Strategy is that the local economy interlinks with many other aspects of a community, including housing, transportation, recreation, and safety. This document helps understand economic development trends in Capitola.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html</a>
Plan Resource	Existing Conditions White Papers	Provide background information on City of Capitola.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html</a>
Plan Resource	Local Coastal Program Land Use Plan	Will be revised as part of the General Plan Update , which is currently underway.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html</a>
Plan Resource	2005 Historic Structures List	Provides a list of historic structures in Capitola.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html">http://www.ci.capitola.ca.us/capcity.nsf/ComDevCityGen.html</a>
Plan Resource	Climate Action Plan	Will be prepared as part of the General Plan Update, which is currently underway.	<a href="http://www.plancapitola.com/">http://www.plancapitola.com/</a>
<b>Building Department</b>			<a href="http://www.ci.capitola.ca.us/capcity.nsf/BldgIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/BldgIntro.html</a>
Personnel Resource	Building Official	Enforces building codes and development ordinances including the floodplain management ordinance.	



**Table 39: Capitola Capabilities Assessment**

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Policy Resource	Inspections & Permit	Building permits ensure that zoning requirements as well as fire and structural safety standards are met.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/BldgIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/BldgIntro.html</a>
<b>City Council</b>			<a href="http://www.ci.capitola.ca.us/capcity.nsf/CtyCnclIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/CtyCnclIntro.html</a>
Policy Resource	Policy Approval	Policy legislation and implementation	
<b>City Administration</b>			<a href="http://www.ci.capitola.ca.us/capcity.nsf/CtyAdIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/CtyAdIntro.html</a>
Personnel Resource	City Manager	Supports the development and implementation of this Local Hazard Mitigation Plan by allocating the appropriate personnel and resources.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/CtyAdIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/CtyAdIntro.html</a>
Financial Resource	Finance	Budgeting and Risk Management for City owned facilities.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/CtyAdFinance.html">http://www.ci.capitola.ca.us/capcity.nsf/CtyAdFinance.html</a>
<b>Public Works Department</b>			<a href="http://www.ci.capitola.ca.us/capcity.nsf/PubWIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/PubWIntro.html</a>
Personnel Resource	Public Works Director	Participates in the development and implementation of this Hazard Mitigation Plan.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/PubWIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/PubWIntro.html</a>
Technical and Policy Resource	Streets Program	Provides maintenance and improvement of the City’s streets and highways. Also provides maintenance of Soquel Creek, Capitola Lagoon, City owned buildings, and the municipal wharf.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/PubWStreets.html">http://www.ci.capitola.ca.us/capcity.nsf/PubWStreets.html</a>
Policy and Plan Resource	Storm Water Management Program	The Depot Hill Drainage Study was conducted in 2008 and the Storm Water Management Program was completed in November 2010.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/PubWIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/PubWIntro.html</a>
Personnel Resource	Grant writing	Part of the Streets Department	<a href="http://www.ci.capitola.ca.us/capcity.nsf/PubWStreets.html">http://www.ci.capitola.ca.us/capcity.nsf/PubWStreets.html</a>
<b>Police Department</b>			<a href="http://www.ci.capitola.ca.us/capcity.nsf/PolIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/PolIntro.html</a>
Personnel Resource	Police Chief	Coordinates preparedness training, public outreach on safety and emergency preparedness, and emergency response.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/PolIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/PolIntro.html</a>
Policy and Plan Resource	Emergency Preparedness	Includes emergency preparedness guides for the elderly, physically challenged, and children.	<a href="http://www.ci.capitola.ca.us/capcity.nsf/PolIntro.html">http://www.ci.capitola.ca.us/capcity.nsf/PolIntro.html</a>

**Table 39: Capitola Capabilities Assessment**

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
<b>Special Districts</b>			Includes Fire, Water, and 911 districts
<b>Central Fire Protection District of Santa Cruz County</b>			<a href="http://www.centralfpd.com/Home/tabid/86/Default.aspx">http://www.centralfpd.com/Home/tabid/86/Default.aspx</a>
Personnel Resource	Fire Chief	Coordinates emergency response, fire prevention education, CERT training, and wildfire education and prevention.	<a href="http://www.centralfpd.com/AboutCentralFire/tabid/87/Default.aspx">http://www.centralfpd.com/AboutCentralFire/tabid/87/Default.aspx</a>
Plan Resource	Wildland Fire Structure Protection Plan	A western portion of the City limits (where there is a large stand of Eucalyptus trees) is located in the Central Fire Districts Wildland Protection Zone CTL 11.	<a href="http://www.centralfpd.com/CommunityResources/WildfireZones/tabid/298/Default.aspx">http://www.centralfpd.com/CommunityResources/WildfireZones/tabid/298/Default.aspx</a>
Plan Resource	Central Fire District Master and Strategic Plan	This Plan can assist the City in identifying future improvements and prioritize mitigation activities.	<a href="http://www.centralfpd.com/AboutCentralFire/MasterPlan/tabid/172/Default.aspx">http://www.centralfpd.com/AboutCentralFire/MasterPlan/tabid/172/Default.aspx</a>
Personnel Resource	Emergency Services	Coordinates with City staff on emergency preparedness, response, and mitigation activities.	<a href="http://www.centralfpd.com/FirePreventionDivision/tabid/88/Default.aspx">http://www.centralfpd.com/FirePreventionDivision/tabid/88/Default.aspx</a>
Policy Resource	Public Education Program and CERT Training	Educates City employees and residents on hazards awareness, prevention, and preparedness.	<a href="http://www.centralfpd.com/CommunityResources/CERTTraining/tabid/154/Default.aspx">http://www.centralfpd.com/CommunityResources/CERTTraining/tabid/154/Default.aspx</a>
Policy Resource	Commercial Building Inspections and Permits	The Fire District provides reoccurring fire prevention inspections of all commercial buildings in the City. The District also provides plan check and permit functions for commercial development addressing Fire Code Standards.	<a href="http://www.centralfpd.com/FirePreventionDivision/tabid/88/Default.aspx">http://www.centralfpd.com/FirePreventionDivision/tabid/88/Default.aspx</a>
<b>Soquel Creek Water District</b>			<a href="http://www.soquelcreekwater.org">http://www.soquelcreekwater.org</a>
Plan Resource	Urban Water Management Plan	Identifies adequate water supplies and proper planning and funding of future water infrastructure improvements.	<a href="http://www.soquelcreekwater.org/content/urban-water-management-plan">http://www.soquelcreekwater.org/content/urban-water-management-plan</a>
Plan Resource	Emergency Response Plan (ERP)	The goals of the ERP are to rapidly restore water service after an emergency, ensure adequate water supply for fire suppression, minimize water system damage, minimize impact and loss to customers, minimize negative impacts on public health and employee safety, and provide emergency public information concerning customer service.	N/A

**Table 39: Capitola Capabilities Assessment**

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	Groundwater Management Plan	Enhances existing water supplies and identifies future opportunities for planning and funding of groundwater management activities.	N/A
<b>Soquel Union Elementary School District</b>			
Personnel and Technical Resource	New Brighton School	The School District owns and manages the New Brighton School which is the City's back-up Emergency shelter location, which is co-located with the New Brighton Gym (the city-owned primary emergency shelter.)	
<b>911 Communications Center</b>			<a href="http://www.scecc.org/">http://www.scecc.org/</a>
Technical Resource		Provides a means of notification to residents and listed phone numbers during an emergency situation allowing resident and businesses to relocate out of a potentially vulnerable area.	<a href="http://www.scr911.org/">http://www.scr911.org/</a>
<b>City of Santa Cruz Water District</b>			<a href="http://www.cityofsantacruz.com/index.aspx?page=54">http://www.cityofsantacruz.com/index.aspx?page=54</a>
Plan Resource	Wildfire Preparedness	Links to various wildfire educational websites	<a href="http://www.cityofsantacruz.com/index.aspx?page=425">http://www.cityofsantacruz.com/index.aspx?page=425</a>
Plan Resource	Urban Water Management Plan	A long range planning document to aid in updating city and county General Plans and for preparation of environmental documents under the California Environmental Quality Act. Serves as a detailed source of information to coordinate local water supply availability and certain land use decisions made by cities and counties.	<a href="http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=24687">http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=24687</a>
Plan Resource	Water Supply Assessment	Assesses the adequacy of the water supply to meet the demand of proposed projects over the next 20 years in addition to the public water system's existing and planned future uses.	<a href="http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=19520">http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=19520</a>
Plan Resource	Adequacy of Municipal Water Supplies to Support Future Development	Provides information on the ability of the system to deliver water and offers possible approaches that could be used by policy makers to integrate local land use decisions with long-term water supply availability.	<a href="http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=11377">http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=11377</a>
Plan Resource	Water Shortage Contingency Plan	Establishes procedures and actions that can be taken to respond to a large, long term shortage in the water supply.	<a href="http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=14601">http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=14601</a>

**Table 39: Capitola Capabilities Assessment**

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	City of Santa Cruz/Soquel Creek Water District Evaluation of Regional Water Supply Alternative	Provides an evaluation of “regional” desalination and wastewater reclamation facilities to augment water supplies for both the City and the District.	<a href="http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=17508">http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=17508</a>
<b>Santa Cruz County</b>			<a href="http://www.co.santa-cruz.ca.us/">http://www.co.santa-cruz.ca.us/</a>
Technical Resource	County Flood Control and Water Conservation District (5)	Provides flood protection and regulation and stormwater services for Zone 5 facilities.	
Technical Resource	County Sanitation District	Operates water and wastewater services.	<a href="http://www.dpw.co.santa-cruz.ca.us/sanitation.htm">http://www.dpw.co.santa-cruz.ca.us/sanitation.htm</a>
Technical Resource	County Public Works	Assist the City in protecting the public’s health, safety, and welfare through superior engineering, maintenance, operations, and administrative services that incorporate customer service and integrity with competence and productivity for a sustained commitment to excellence.	<a href="http://www.dpw.co.santa-cruz.ca.us/">http://www.dpw.co.santa-cruz.ca.us/</a>
Plan Resource	San Mateo-Santa Cruz Community Wildfire Protection Plan	Identifies wildfire hazard areas and methods for reduction/ elimination of fire hazards.	<a href="http://www.rcdsantacruz.org/pages/san-mateo-santa-cruz-community-wildfire-protection-plan.php">http://www.rcdsantacruz.org/pages/san-mateo-santa-cruz-community-wildfire-protection-plan.php</a>
Plan Resource	Hazard Mitigation Plan	Identifies mitigation actions for County of Santa Cruz critical facilities.	N/A
Plan Resource	Coastal Incident Response Plan	Establishes response framework and protocols for incidents along the Santa Cruz County coastline, including the City of Capitola.	<a href="http://sccounty04.co.santa-cruz.ca.us/oes/Coastal%20Incident%20Response%20Plan%202005v1.5.pdf">http://sccounty04.co.santa-cruz.ca.us/oes/Coastal%20Incident%20Response%20Plan%202005v1.5.pdf</a>
Plan Resource	Operational Area Emergency Management Plan (2005)	Overall emergency management plan for the Santa Cruz County Operational Area.	<a href="http://sccounty04.co.santa-cruz.ca.us/oes/Op%20%20Area%20Plan%20Revised%202005-8-28.pdf">http://sccounty04.co.santa-cruz.ca.us/oes/Op%20%20Area%20Plan%20Revised%202005-8-28.pdf</a>

**Table 39: Capitola Capabilities Assessment**

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	Tsunami Response Plan Annex (2010)	The City of Capitola relies on the Tsunami Response Plan Annex developed to accompany the Operational Area Emergency Management Plan.	<a href="http://sccounty04.co.santa-cruz.ca.us/oes/SC%200A%20Tsunam i%20Annex%20v%201.2.pdf">http://sccounty04.co.santa-cruz.ca.us/oes/SC%200A%20Tsunam i%20Annex%20v%201.2.pdf</a>
Plan Resource	General Plan	Provides policies within Santa Cruz County intended to reduce hazards and disasters.	N/A
Plan Resource	Emergency Preparedness Guide	Provides a resource for residents/ businesses to better prepare for future disaster/ emergency situations.	<a href="http://sccounty04.co.santa-cruz.ca.us/oes/Emergency%20Prepar edness%20Guide.pdf">http://sccounty04.co.santa-cruz.ca.us/oes/Emergency%20Prepar edness%20Guide.pdf</a>
Policy Resource	Growth Management	Reduces development potential within hazard prone areas.	<a href="http://www.codepublishing.com/ca/santacruzcounty/html/SantaCruzCounty17/SantaCruzCounty1701.html">http://www.codepublishing.com/ca/santacruzcounty/html/SantaCruzCounty17/SantaCruzCounty1701.html</a>
Technical Resource	Rain and Stream Gauging	Allow the City to better monitor rainfall and stream flow totals to gauge the adequacy of storm drain infrastructure capacity.	<a href="http://santacruz.onerain.com/home.php">http://santacruz.onerain.com/home.php</a>
Technical and Staffing Resource	NIMS Training	On an ongoing basis, County OES conducts training for all department heads on their role in an emergency based on the National Incident Management Systems (NIMS). This training proved to be successful in the response to the severe floods in March 2011.	N/A
<b>State and Federal Agencies</b>			
Technical Resource	National Weather Service	Decision Support Program (improved forecast interpretations for making informed decisions)	
Technical Resource	California Emergency Management Agency	Hazard Mitigation Web Portal provides guidance and examples of hazard mitigation planning as well as notifications regarding available funding.	<a href="http://hazardmitigation.calema.ca.gov/">http://hazardmitigation.calema.ca.gov/</a>
Technical Resource	Federal Emergency Management Agency	Guidance for hazard mitigation planning processes and resources.	<a href="http://www.fema.gov/plan/mitplanning/index.shtm">http://www.fema.gov/plan/mitplanning/index.shtm</a>

**Fiscal Capability**

*City of Capitola Budget Department Overview*

The following summarizes Capitola’s fiscal capabilities in terms of the City’s financial resources and allocated spending. Sales tax and property tax are the primary sources of Capitola’s financial resources. The City has allocated the majority of these financial resources to Public Safety, Community Development, Public Works, and City Manager/City Clerk/Human Resources departments which are all relevant for implementing hazard mitigation actions.

The City Council, City Manager, Community Development, Police, and Public Works departments all have a general fund that could be used toward mitigation activities. These departments also have budgets used to employ City staff that are an integral part of the mitigation planning process. These staff members include:

- The City Manager's department employs an Information Systems Specialist.
- The Community Development Department staff includes a community development director, one planner, and a building inspector and official.
- Public Works Department staff includes a public works director and a ten person maintenance crew.
- The Police Department employees a chief, captain, sergeant, and 16 police officers. This department is also responsible for the City's Emergency Preparedness.

### ***Capital Improvement Projects: 2011-2012***

Capital improvements projects scheduled for the 2011-2012 fiscal year contribute to hazard mitigation. Performing street maintenance, pedestrian improvements, and traffic calming all increase safety for drivers, pedestrians, and bicyclists and reduce the risk for traffic incidents. Planned Soquel Creek flume repairs will help reduce flooding and erosion along the creek and tributary drainages. The flume is also a critical component of the City's tourism activities as it allows for the development of a sandy, protective beach during the summer months.

### ***Central Fire Protection District Of Santa Cruz County Financial Statements***

The Central Fire Protection District of Santa Cruz County allocates its budget to fund fire fighters and employees, vehicle and fuel costs, radio services, equipment, and education and/or training. All of these costs are essential to supplying the City of Capitola with emergency fire services. A majority of the revenue gathered to operate the district comes from property taxes.

### ***City of Santa Cruz Water Department and Soquel Creek Water District Financial Statements***

The City of Santa Cruz Water Department and Soquel Creek Water District's budget includes infrastructure maintenance, implementation of surface / ground water management, water conservation, and customer maintenance, all of which help ensure access to water for the residents of Capitola.

# Chapter Five - Plan Maintenance Process

This Chapter identifies the formal process that will ensure that the Capitola LHMP (the Plan) remains an active and relevant document. The Plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing an update every five years.

This chapter describes how Capitola will integrate public participation throughout the plan maintenance and implementation process. It also describes how the City intends to incorporate the mitigation actions outlined in this Plan into existing planning mechanisms and programs. These include the Capitola General Plan, the City's Capital Improvement Program, as well as building code enforcement and implementation. The Plan's format allows the City to readily update sections when new data becomes available, resulting in a Plan that will remain current and relevant to the City of Capitola.

## 5.1 MONITORING, EVALUATING AND UPDATING THE PLAN

### Coordinating Body

The Capitola Hazard Mitigation Planning Team will be responsible for the maintenance of this LHMP. The City of Capitola Community Development Department will take the lead in LHMP maintenance issues, by coordinating maintenance of this Plan and undertaking the formal review process and the rewrite of the LHMP.

### Convener

The City of Capitola Community Development Department will facilitate the Hazard Mitigation Planning Team meetings, and will assign tasks such as updating and presenting the Plan to other Departments, Stakeholder Groups, and/or elected officials. Plan implementation and evaluation will be a shared responsibility among all of the Hazard Planning Team.

### Evaluation

The minimum task of the ongoing annual hazard mitigation planning team meeting will be the evaluation of the progress of the Plan and incorporating the actions into other planning documents. This review will include the following:

- Summary of any hazard events that occurred during the prior year and their impact on the community.
- Review of successful mitigation initiatives identified in the Plan.
- Brief discussion about why targeted mitigation strategies were not completed.
- Re-evaluation of the mitigation actions plan to determine if the timeline for identified projects needs to be amended (such as changing a long-term project to a short-term project due to funding availability).
- Recommendations for new mitigation actions.
- Changes in, or potential for, new funding options/grant opportunities.
- Integration of new GIS data and maps that can be used to inform the Plan.
- Evaluation of any other planning programs or initiatives within the City that involve hazard mitigation.

The City will create a template to guide the LHMP team in preparing a progress report. The City will also prepare a formal annual report on the progress of the LHMP. This report will be used as follows:

- Distributed to City department heads for review.
- Posted on the City website on the page dedicated to the Plan.

- Provided to the local media through a press release.
- Presented in the form of a council report to the City Council.

## **5.2 METHOD AND SCHEDULE FOR UPDATING THE PLAN WITHIN 5 YEARS**

Section 201.6.(d)(3) of Title 44 of the Code of Federal Regulations requires that local hazard mitigation plans be reviewed, revised if appropriate, and resubmitted for approval in order to remain eligible for benefits awarded under the Disaster Mitigation Act (DMA). The City intends to update the Plan on a five-year cycle from the date of initial plan adoption. It is anticipated that this update process will occur one year prior to expiration of the existing plan. This cycle may be accelerated to less than five years based on the following triggers:

- A Presidential Disaster Declaration that impacts the City of Capitola.
- A hazard event that causes loss of life.

The intent of the update process will be to add new planning process methods, community profile data, hazard data and events, vulnerability analyses, mitigation actions and goals to the adopted plan so that the Plan will always be current and up to date. Based on the needs identified by the planning team, the update will, at a minimum, include the elements below:

1. The update process will be convened through a committee appointed by the Community Development Director and will consist of at least one member of the General Plan Update Advisory Committee or staff to ensure consistency between Plans.
2. The hazard risk assessment will be reviewed and updated using best available information and technologies on an annual basis.
3. The evaluation of critical structures and mapping will be updated and improved as funding becomes available.
4. The mitigation actions will be reviewed and revised to account for any actions completed, deferred, or changed to account for changes in the risk assessment or new City policies identified under other planning mechanisms, as appropriate (such as the General Plan).
5. The draft update will be sent to appropriate agencies for comment.
6. The public will be given an opportunity to comment prior to adoption.
7. The Capitola City Council will adopt the updated Plan.

## **5.3 ADOPTION**

The Capitola City Council is responsible for adopting the Plan. This formal adoption should take place every five years. Once the Plan has been adopted, the City of Capitola Community Development Department will be responsible for final submission to the California Emergency Management Agency (CalEMA). CalEMA will then submit the Plan to the Federal Emergency Management Agency (FEMA) for final review and approval.

## **5.4 IMPLEMENTATION THROUGH EXISTING PROGRAMS**

The effectiveness of the City's non-regulatory LHMP depends on the implementation of the Plan and incorporation of the outlined mitigation action items into existing City plans, policies, and programs. The Plan includes a range of action items that, if implemented, would reduce loss from hazard events in the City. Together, the mitigation action items in the Plan provide the framework for activities that the City can choose to implement over the next five years. The City has prioritized the plan's goals and identified actions that will be implemented (resources permitting) through existing plans, policies, and programs.



The Community Development Department has taken on the responsibility for overseeing the Plan's implementation and maintenance through the City's existing programs. The Community Development Director, or designated appointee, will assume lead responsibility for facilitating LHMP implementation and maintenance meetings. Although the Community Development Department will have primary responsibility for review, coordination, and promotion, plan implementation and evaluation will be a shared responsibility among all departments identified as lead departments in the mitigation action plan. The Community Development Department will continue to work closely with the Santa Cruz County Emergency Operations Manager to insure consistency with all relevant plans.

### **5.5 INCORPORATION INTO EXISTING PLANNING MECHANISMS**

The information on hazards, risk, vulnerability, and mitigation contained in this Plan is based on the best information and technology available at the time the LHMP was prepared. As previously stated, the City's General Plan is considered to be an integral part of this plan. The City, through adoption of its 1994 General Plan (Safety Element) goals, has planned for the impact of natural hazards. The City's General Plan is currently being updated and the LHMP process has allowed the City to review and expand upon the policies contained within the General Plan Safety Element. The City views the General Plan and the LHMP as complimentary planning documents that work together to achieve the ultimate goal of the reduction of risk exposure to the citizens of Capitola. Many of the ongoing recommendations identified in the mitigation strategy are programs recommended by the General Plan and other adopted plans. The City will coordinate the recommendations of the LHMP with other planning processes and programs including the following:

- Santa Cruz County Emergency Management Plan
- Capitola Capital Improvement Program
- Capitola Building Codes
- Capitola Storm Water Management Program
- Capitola Emergency Operations Plan
- Monterey Bay Sea Level Rise Study (Ongoing – To be completed in 2013)

### **5.6 CONTINUED PUBLIC INVOLVEMENT**

The public will continue to be apprised of the LHMP actions through the City website and by providing copies of the annual progress report to the media. Copies of the Plan will be distributed to the Santa Cruz Library System. Upon initiation of the LHMP update process, a new public involvement strategy will be developed based on guidance from the planning team. This strategy will be based on the needs and capabilities of the City at the time of the update. At a minimum, this strategy will include the use of local media outlets within the planning area and the City's website.

### **5.7 POINT OF CONTACT**

Susan Westman  
City of Capitola Interim Community Development Director

Steve Jesberg  
City of Capitola Public Works Director

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**Draft**  
**Local Hazard Mitigation Plan**  
**Appendices**

*Prepared by*



2012



## Appendix A – Timeline of Capitola Natural Hazard Events


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## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1791-1792	Flood	Santa Cruz Mission destroyed	
1847	Flood	Sawmill constructed on Soquel Creek (Rancho Soquel) destroyed. It had been built by John Hames and John Daubenbiss, who later obtained lands of the Rancho Rodeo, and became the founders of the town of Soquel (1852).	
1852	Flood	This was a major flood event but impact not recorded (no newspapers had yet been established).	
1/9/1857	Earthquake	Three earthquakes struck the Santa Cruz vicinity in a series. The tower and a portion of the Santa Cruz Mission Church collapsed.	
Jan. 1862	Storm/Flood	Major event—Soquel village inundated; mills, flumes, school, town hall, houses and bams were destroyed. Massive pile of debris went out to sea and then washed ashore at Soquel Landing.	
8/01/1863	Earthquake	Described as “severe shock.”	
1863-64	Drought	Unknown	
10/08/1865	Earthquake	Unknown	
11/25/1865	Storm/High Tide	500 feet of the Soquel Landing wharf is lost; the remaining 600 feet are deemed “useless.” Nearby bam blown down. Two young whales and a hair cloth sofa washed ashore. Waves described as “mountain high.” Wharf damage is \$6,000. Pilings are deposited in a potato field beyond the beach.	

## Timeline of Natural Hazard Events Impacting the City of Capitola



DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
12/14/1867	Storm	Wharves damaged in Aptos and Watsonville but no specifics are listed for Soquel Landing.	
9/19/1868	"Tidal Wave"	High tide described as tidal wave; damage unknown	
10/24/1868	Earthquake	"Second only to October 1865"	
2/03/1869	Storm, flood, slides, washouts	New bridge washed away at Soquel; roads impassable.	
12/23/1871	Southeast gale, flood, high tide	Water gauged to be "higher than flood of 1862."	
1/24/1874	Storm	Roaring surf. Rain threatens crops.	
12/04/1875	Flood	Compared to ferocity of the 1862 flood	
1877	Severe drought	Capitola's founder, S.A. Hall, was boarding 300 horses at his stable during the summer. The price of hay went to \$20.00 a ton due to the drought, and he lost money. When landowner F.A. Hihn increased the rent two years later, Hall couldn't afford the increase, and left.	




## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1/19/1878	Storm with tide	No Capitola impact recorded.	
7/01/1882	Earthquake	Worst since 1868	
1/30/1881	Storm	Conflicting reports on damage to Capitola. One report describes the resort as destroyed, while another stated damage was "not as serious."	
March 1883	Earthquake	Severe shock with several aftershocks recorded. No damage listed for Capitola.	
3/10/1884	Flooding and Washouts	Storm lasted five days. No Capitola impact described in newspapers	
12/16/1886	High surf	Capitola impact unknown	
12/30/1886	High surf	High seas; ships prevented from landing	
5/10/1887	Heaviest surf of the season	No damage reported for Capitola.	
9/18/1888	Earthquake	Described as extremely severe.	
1/05/1889	Storm	Damage to beach areas	
12/26/1889	Storm	Train service stopped; Santa Cruz County becomes isolated.	
1/06/1890	Storm/ Mudslides in mountains	Worst winter in 40 years; concern for grain crops	


## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1/27/1890	Floods	Judged to be as bad as 1852, 1862, and 1871; Capitola floods, footbridge and span of wagon bridge destroyed. Esplanade flooded—buildings to be replaced in “permanent form.” A huge pile of debris appears along the beach.	
2/08/1892	High tides	Yacht “Petrel” washed ashore at Capitola; beachfront concessions damaged. <i>Swimmers endangered.</i>	
1/12/1899	Severe storm	Several days duration; damage unknown	
1/02/1900	Storm	Severe; no damage listed.	
3/14/1905	Storm	Judged to be “worst in 27 years.” Capitola impact unknown.	
1/20/1906	Flood	Buildings from Loma Prieta Lumber Company camp above Soquel are destroyed. Debris at Capitola. Downtown Soquel floods. Landslides in hills.	


## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1906, 5:12am	Earthquake	Nine men killed in mudslide at the Loma Prieta mill above Soquel; surge on local creeks; water pipes broken, chimneys and walls cracked. Splits in the earth. Magnitude 8.3.	
4/27/1907	Storm	High water and flooding; Capitola damage unknown	
1/21/1911	Storm	Unknown	
3/07/1911	Storm	Unknown	
1911	Erosion	<p>Incidents of cliff erosion along Grand Avenue prompt Lewis B. Hanchett, the owner of El Salto Resort, to begin chopping down trees on what is left of "Lover's Lane" along the bluff of Depot Hill. Hanchett believed that when the trees fell, they further hastened the cliff erosion.</p>	

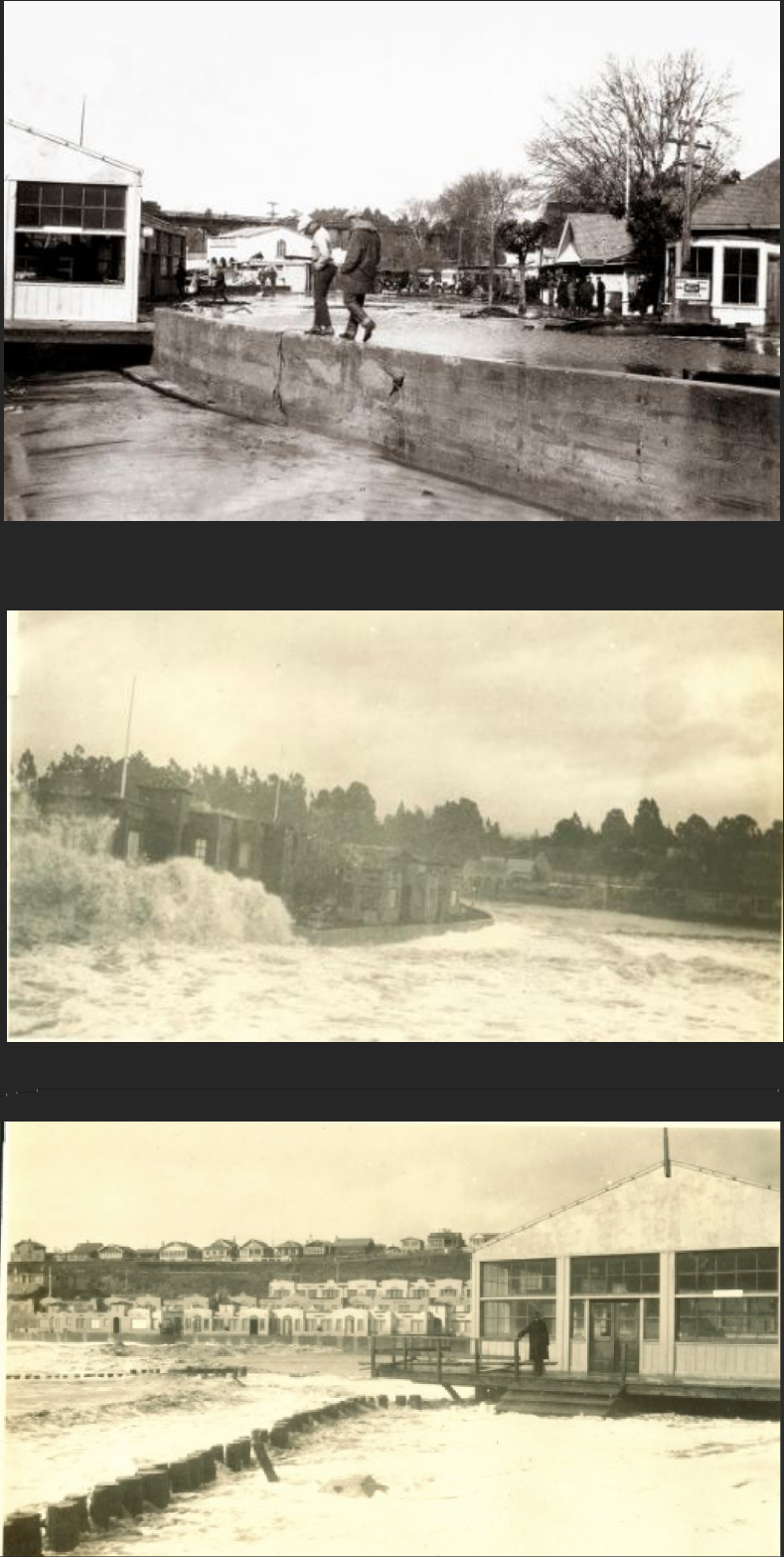
## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
11/27/1913	<b>Storm and tide</b>	<p>Great groundswells when the tide was highest. Waves ran across the beach to the Esplanade and water spread "clear to the railroad tracks." Union Traction Company tracks covered with sand. Water reached the Hihn Superintendent's Building (Capitola and Monterey Avenues), and waves were described as "monster." About 200 feet of wharf washed away. Stranded fisherman rescued and pulled underwater to safety. A huge pile of debris covered the beach and was cut-up for firewood. <i>Fisherman Alberto Gibelli stranded when mid-section of wharf washed away.</i></p>	
1/01/1914	<b>Flood</b>	Flood in Soquel and along Soquel Creek.	
11/28/1919	<b>Storm</b>	Damage high; no Capitola details	
12/27/1921	<b>Storm</b>	Described as "great."	


# Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
<p>2/12 and 2/13/1926</p>	<p>High tides</p>	<p>Waves to 20 feet. Wharf damaged. Sea wall promenade broken at Venetian Courts. Apartments flooded. Breakers slammed into Esplanade, destroying boathouse/bathhouse, beach concessions. Tide hits the second floor of Hotel Capitola. Water runs a foot deep through village.</p>	


# Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
			 <p>The 'IMAGES' column contains three historical black and white photographs. The top photograph shows a concrete seawall with two people walking on top, with buildings and trees in the background. The middle photograph shows a large, turbulent wave crashing against a structure. The bottom photograph shows a flooded area with a building in the foreground and a residential street in the background.</p>

## Timeline of Natural Hazard Events Impacting the City of Capitola


DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
10/28/1926	Earthquake	Damage recorded in Capitola	
1/24/1930	Erosion	About 130 residents appear before Santa Cruz County Supervisors to protest announced firing of 12-inch guns at Camp McQuaide, Capitola. Among petitioners claims are that "the terrific jar of the guns loosens the rim of the cliffs, and the earth is sloughing off to a dangerous degree."	
1928-1937	Drought	Reported as one of longest and most severe in state's history. Capitola is bordered by bulb ranches and floral nurseries, as well as poultry ranches and rabbit farms.	
12/26/1931	Storm	Soquel Creek rises; cleans lagoon at Capitola. Debris and wood deposited on the beach.	
12/28 and 12/29/1931	Storm and high tide	<p>Damage to cottages and concessions at New Brighton Beach. Roads fill with "the muck of the sea." At Seacliff Beach, the concrete ship Palo Alto is shaken loose and moved about three feet as if "impelled by the spirit of the sea to fulfill its destiny and start moving."</p> <p>Soquel "River" widens to sixty feet, the highest since 1890, damaging property in Soquel and all the way to the mouth at Capitola. Orchards are lost with the rapid rise of water. Hundreds gather to watch the tides batter the concessions at the beach. There is a "vortex of water where the river and sea meet." The waterfront is piled high with flood debris thrown back up the beach.</p>	

## Timeline of Natural Hazard Events Impacting the City of Capitola



DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
		<p>The creek cuts across the beach and moves sand below the new outlet. Two months later, workers discovered a noticeable settling of the western end of the bathhouse, due to a break in the retaining wall. This left a portion of the bathhouse supported only by its concrete flooring. Repairs required rebuilding the retaining wall and replacing the fill.</p>	
1/04/1935	<b>Flood</b>	<p>Capitola Village floods; thirty feet of the sea wall is taken out. Beach playground disappears. Venetian Courts hit hard but damage minimal.</p>	
1/09/1935	<b>Erosion</b>	<p>Near the seawall cave-in by the site of the old hotel, a tree fell sixty feet from Grand Avenue. The "new favorite outdoor sport" for onlookers is to walk behind the sewer plant to see the fallen tree and debris of the broken sea wall.</p>	
12/14/1936	<b>Drought</b>	<p>Long drought ended by rain.</p>	
2/14/1937	<b>Flood</b>	<p>Soquel Creek floods in Soquel Village due to logjam at the bridge on Soquel Drive. Landslides in watershed.</p>	
3/22-23/1937	<b>Storm</b>	<p>Boats in the streets at Capitola. An estimated \$3,000 is spent to repair the sea wall at the Venetian Court Apartments.</p>	
2/10/1938	<b>Storm winds</b>	<p>Winds up to 70 mph; 500 trees uprooted throughout county. Thunderous seas lashed the waterfront from Aptos to Capitola.</p>	



## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1/04/1939, 10:30pm	<b>Wind and waves</b>	<p>Main damage to Capitola Beach Club at the Esplanade and Monterey Avenue. Water and sand carried into the structure and spread out over the dance floor to the bandstand.</p> <p>While the storm was still raging, thieves jimmied the back door of the club's tap room, and made away with two slot machines, along with the stands on which they had rested.</p> <p>Ocean also swept over the Esplanade during the night, and into town for a block-and-a-half, carrying sand and rocks, some 6-8 inches in diameter. Waves hit the front and sides of the pier. Sand and rocks were swept into lower terraces of the Venetian Court and covered porches of the casino on the waterfront, but did no serious damage.</p>	
1/8/1940, 9pm-Noon	<b>Storm</b>	<p>The "old Capitola casino" owned by Capitola Amusement Company was the principal victim of storm. Casino "capsized" shortly after 9 a.m. Plans for new structure announced immediately.</p>	


Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
			
1/12/1940	<b>Storm</b>	Most rain "since 1890" reported.	
1/26/1940	<b>Storm</b>	"Shatters all records."	
2/27/1940	<b>Severe Flood</b>	Logs pile against bridge in downtown Soquel and village floods. Landslides in watershed.	

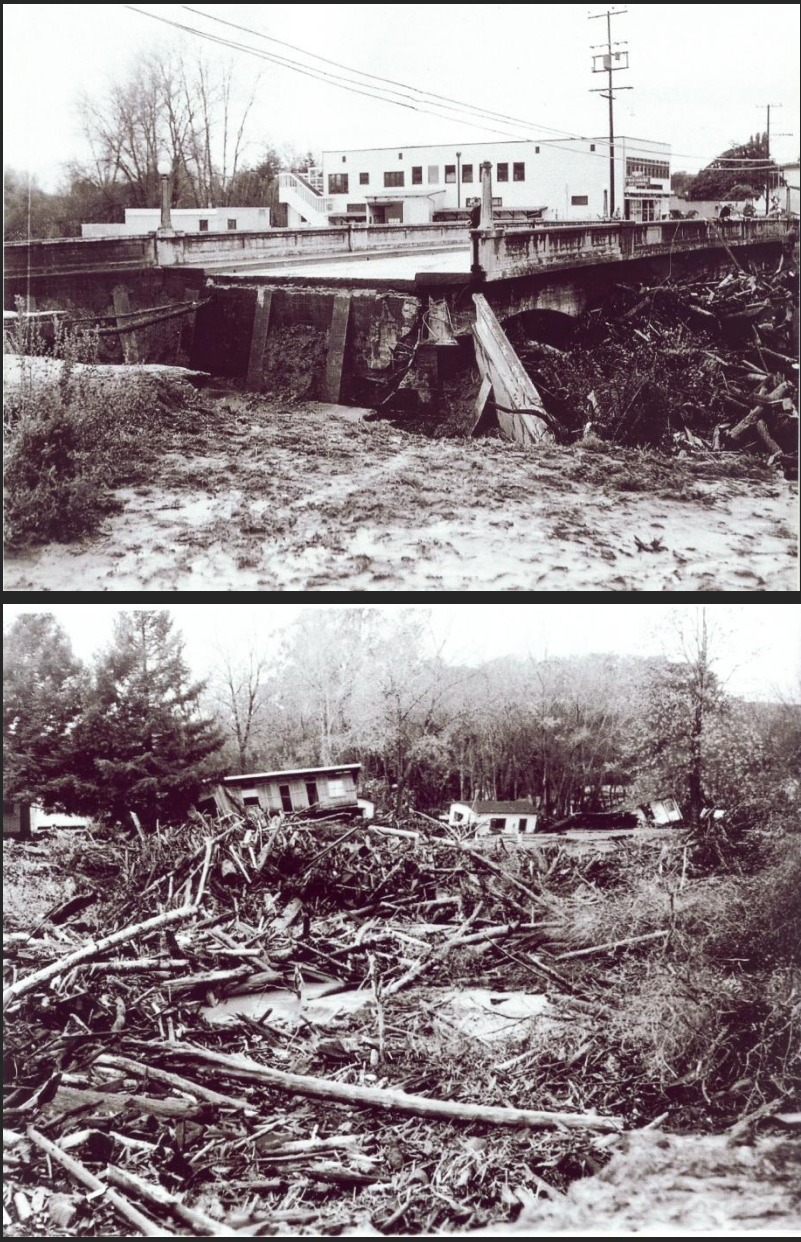
## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
3/31/1940	Storm	"Wettest day in Santa Cruz history."	
12/23/1940	Storm	Flood conditions, winds	
2/09/1941	Near record storm		
4/2/1941	Severe Storm	Lasting many days Damage unknown	
4/15/1941	Earthquake	Santa Cruz is epicenter. No damage.	
6/02/1941	Earthquake	Sharp jolt	
6/18/1941		Capitola announces plans to lengthen flume	
12/09/1943	Gale winds	60-mile-an-hour winds create damage in county	
2/5/1945	Flood conditions	Local damage unknown	
April 1946	Tsunami	Earthquake in Aleutians produced 115-foot wave. Tsunami observed along the West Coast. A man was swept to sea in Santa Cruz. Ten-foot waves hit the coastline.	
1947-1949	Drought	Statewide	
8/01/1949	"Heaviest surf in 20 years"	18-foot waves recorded along the coast. Swimmer drowns in Santa Cruz.	

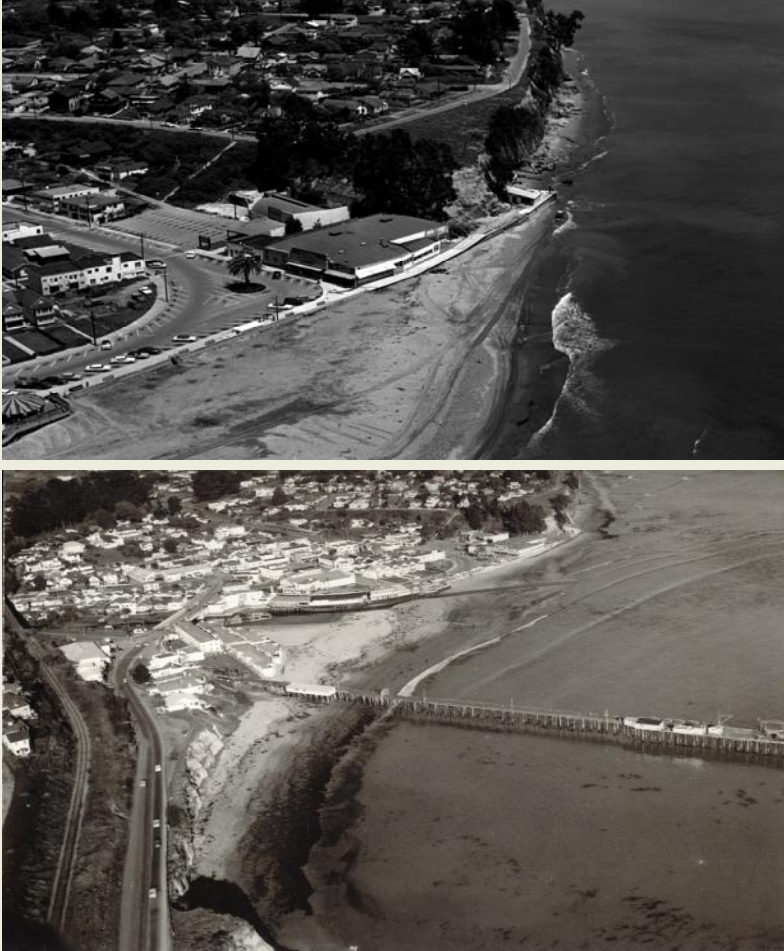

## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
<p>Winter 1953</p>	<p><b>Giant swells</b></p>	<p>Ocean side of building at the end of the Capitola Wharf smashed in by waves 20-30 feet at high tide. Six pilings broken off.</p>	


## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
4/15/1954	Earthquake	Falling plaster, broken chimneys, shattered dishes	
12/22/1955	Highest Flood	<p>At the Soquel Drive bridge in downtown Soquel, remains of a four-room house and five cabins joined the rubble that wedged against the bridge abutments, causing the bridge to collapse. Overall damage to property in Soquel and Capitola exceeded \$1 million. Capitola damage included the Venetian Courts. Noble Creek and Tannery Creek also flooded.</p>	


## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
5/2/1955	Erosion	<p>Sentinel: Capitola City Council Asks Cleanup Help</p> <p>“Believe it or not, a few people still occasionally throw garbage over the cliff, particularly along Grand Avenue. This not only creates health hazards, but also attracts rodents which burrow into and weaken the cliff, increasing the rate of cliff erosion....”</p>	
4/3/1958	High Tide	<p>Esplanade smashed by tides. Andy Antonetti's Merry-go-round damaged; horses are knocked off and washed down San Jose Avenue.</p>	

## Timeline of Natural Hazard Events Impacting the City of Capitola

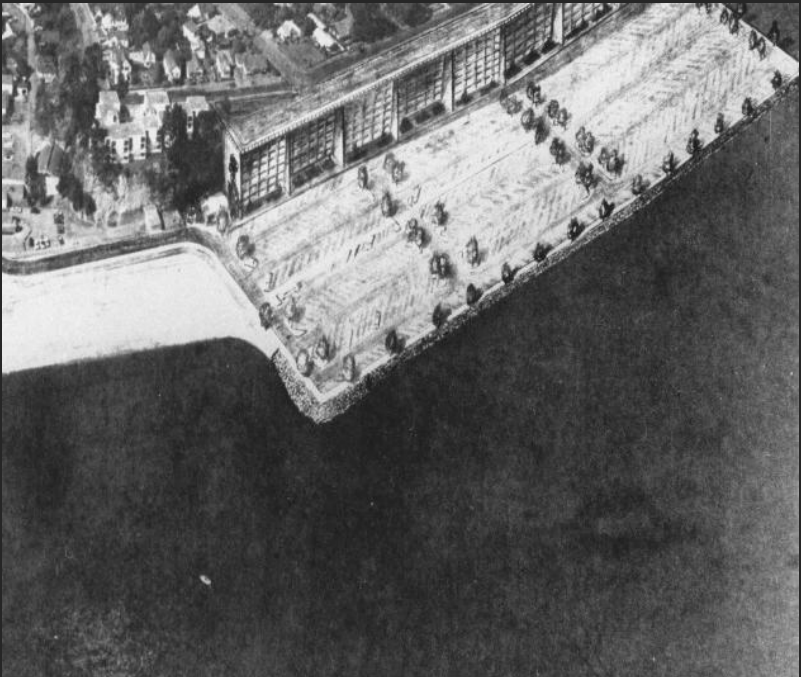
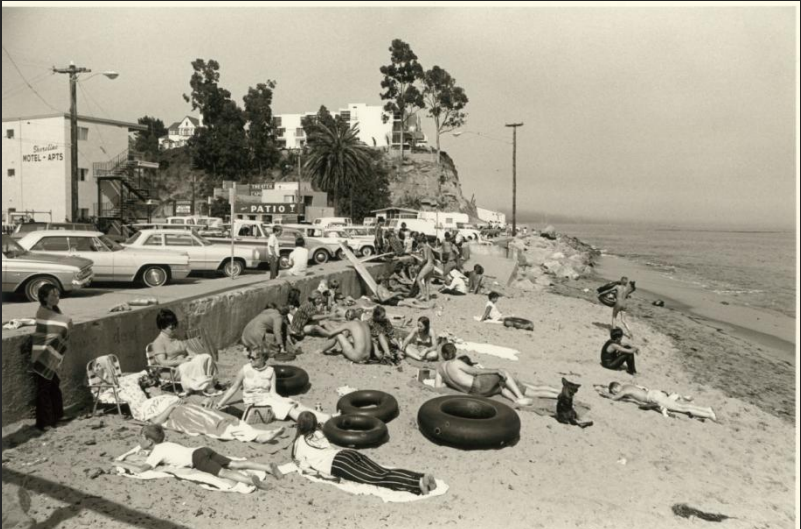
DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
2/09/1960	Gale winds, heavy seas	<p>Power outages, slides, and winds 35-40 mph. Capitola hardest hit. Damage estimated at \$100,000. Ten Venetian Court apartments flooded. "A sign was ripped off the end of the wharf, rolled into a ball, and deposited into an apartment."</p> <p>Heavy waves smashed the beach restaurants, amusement concessions, and the merry-go-round. Rocks and logs strewn across the beach. Water pushed back under the Stockton Bridge, crushing the riverfront fences 100 yards on either side. An estimated \$5,000 in damage was done to the wharf building, but not much happened to the wharf itself. Cliffs crumbled on Grand Avenue.</p> <p>Police Chief Marty Bergthold called it "The worst storm in 15 years."</p> <p>A portion of Grand Avenue falls into the ocean.'</p> <p><i>15 people knocked to the ground by breakers. One woman injured.</i></p>	
Summer 1961	Birds fall from sky	<p>Sooty Shearwaters fall from the sky; they are affected by toxins from red algae. Birds cover streets, wharf, and beach. Alfred Hitchcock inspired to move ahead with filming "The Birds."</p>	

## Timeline of Natural Hazard Events Impacting the City of Capitola



DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1963	Erosion	Capitola City Council votes to start condemnation proceedings against Harry Hooper to obtain 320 feet of Hooper Beach for erosion control to protect Cliff Drive, where a high rise development was planned.	
1963	Erosion	Capitola City Council considers construction of seawall to control erosion from Grand Avenue to New Brighton Beach. The filled in area would also provide parking for approximately 400 cars.	
Dec. 20, 1964	Erosion	<p>Construction begins on controversial Crest "prestige" 24-unit apartment house on the bay side of Grand Avenue on Depot Hill. Robert Lamberson, architect. Grand Avenue residents eventually sue the City over a disputed 10-foot setback for the project, which was built on a former park site at the top of the bluff. Cost \$500,000.</p> <p>In the 1980s, several units facing the bay were removed due to cliff erosion.</p>	
12/20/1964	Flood threat	Storm and tide alarms City with a disappearing beach	





# Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1/13/1965	Erosion	<p>Capitola considers feasibility study to build 370-foot seawall along Grand Avenue.                      Backfilling below Grand Avenue would be used for a 1,000-car parking lot.</p> <p>Developers expressed desire to lease portion of the parking lot for a three-story, 20 unit convention hotel with restaurant and cocktail bar, to be built along the Grand Avenue bluff.</p> <p>First step was to have the beach deeded to the city by the state.</p> <p><i>\$1,228,000 estimated cost for parking lot</i></p> <p><i>\$275,000 estimated cost for hotel.</i></p>	
Summer 1965	Erosion	<p>Capitola requests help from the State Department of Water Resources to solve the problem of disappearing sand, due to "failure of Santa Cruz harbor officials to install a recommended sand by-pass at the harbor jetty.</p>	


## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
Summer of 1965	<b>Erosion</b>	<p>Off-Shore parking lot plan revised. Parking lot to extend 430 feet out into the way from the cliffs south of Capitola beach for about 1,500 feet. A breakwater is planned to extend 600 feet south to the end of the high cliff area, to prevent cliff erosion. The parking lot would also be used as an "overnight parking unit" with commercial concessions for tourists. Project to cover ten acres reclaimed from the bay.</p>	
December 1965	<b>Storm</b>	<p>The City replaced 21 pilings under the wharf that were weakened by the storm.</p> <p>Capitola officials fear that waves would smash the seawall which protected sewer lines that ran from Capitola's pumping station to the East Cliff Sanitation District plant.</p> <p>That winter, the county public works department offered 500 cubic feet of rock rubble to be placed against the seawall.</p>	


## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1966	Erosion	Lifelong resident Violet Gooch hired Granite Construction to build a rip-rap wall at the base of the cliff at the end of the row of homes west of the wharf. (Hooper Beach)	
January 1967	Storm	Reported as heavy	
1968	Erosion	Army Corps of Engineers begins work to construct a groin, completed the following spring. Cost \$160,000.	
January 1973	Storm	Beach littered with tons of driftwood after heavy rains.	
1975	Wind storm	40 knot winds downed trees and power lines.	
1976-77	Severe drought	Water conservation ordered	
1976	Strong winds	Winds downed power lines	

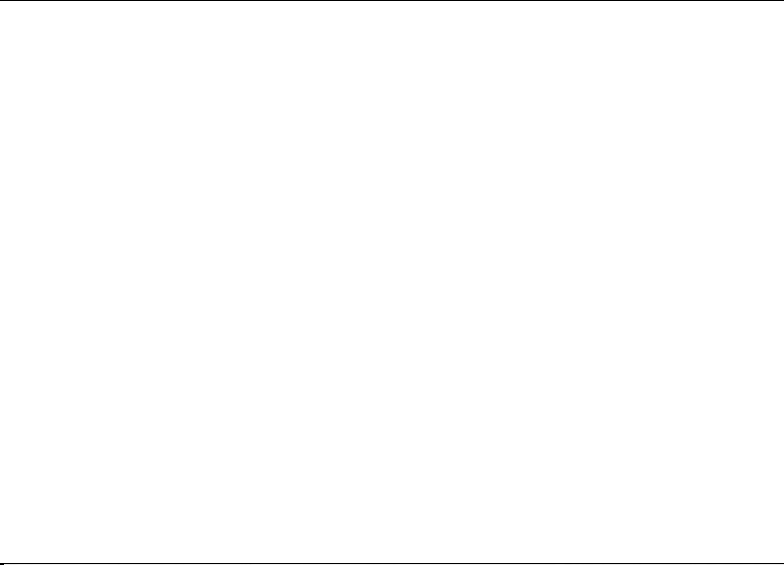
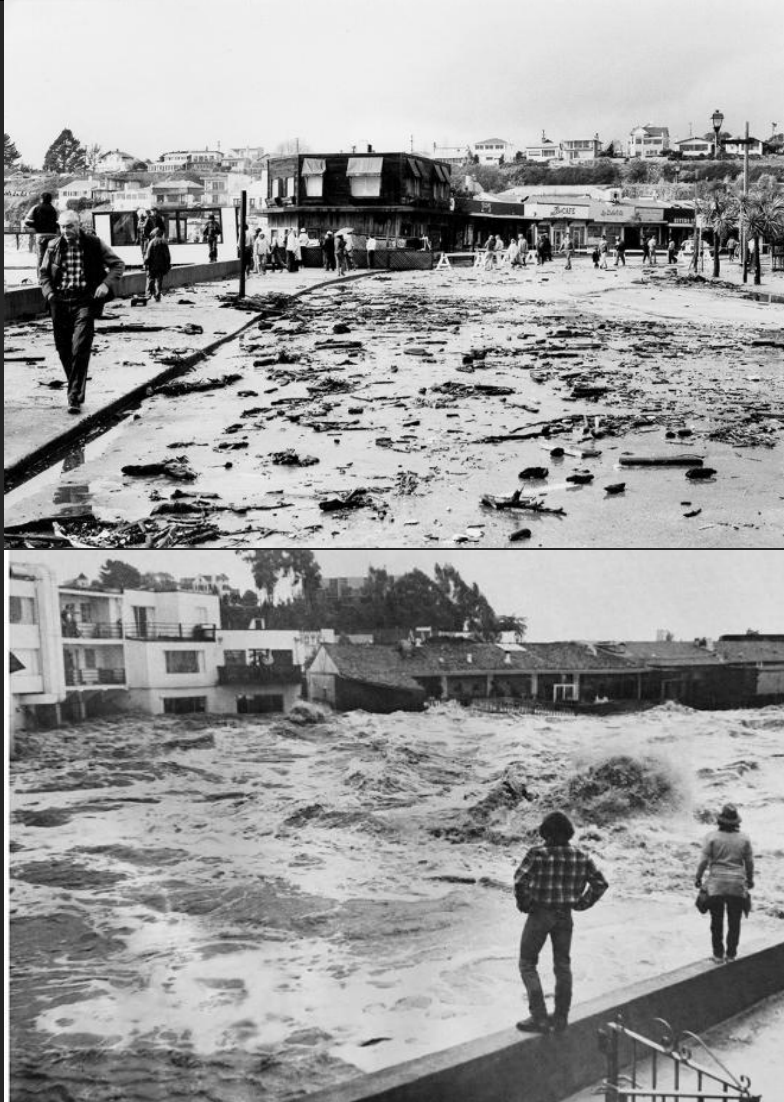
## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
12/21/1976	High waves	Waves crash over wharf	
10/2/1979	High waves	<p>At least eight sailboats were destroyed at Capitola during the morning. A powerful swell broke 15 boats from their moorings off the Capitola Wharf. The boats were pushed ashore by 12-to-20 foot waves that pounded the shoreline.</p>	
Jan 1980	Flood	No damage reported	
1/16/1980	Earthquake	Epicenter of 3.6 magnitude quake in Corralitos	



# Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
<p>January 3-5, 1982</p>	<p>Flood</p>	<p>Torrential rainfall, floods, mudslides countywide. Soquel Creek overflowed and flooded Soquel. The logjam at the bridge was estimated to be nearly 100 yards wide and 25 feet high. In Capitola, damage was comparatively minimal. The roadway leading to the Stockton Avenue bridge was damaged. The bridge bulkhead was undercut. Several of the Venetian Court units were damaged and a portion of the seawall gave way.</p> <p><i>City officials estimated damage to public property at \$270,889.</i></p>	 <p>The 'IMAGES' column contains three photographs. The top photo shows a large wooden truss bridge over a wide, muddy, brown river. The middle photo shows a street scene with a car driving through deep floodwaters that reach up to its headlights. The bottom photo shows a curved concrete seawall along a beach, with debris and water visible in the foreground and buildings in the background.</p>



## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
12/17/1982	Storm	<p>Restaurant on the newly renovated Capitola Wharf is damaged in storm.</p>	
1/27/1983	High Tide	<p>Capitola Wharf buildings, the Venetian Courts, the former boathouse building (Mr. Toots Downstairs) and all other business of the Esplanade down San Jose Avenue and Lawn Way. Huge logs and debris are scattered through town.</p> <p>The giant surf took out a 30-foot section of the wharf which had been renovated in 1982.</p>	

# Timeline of Natural Hazard Events Impacting the City of Capitola

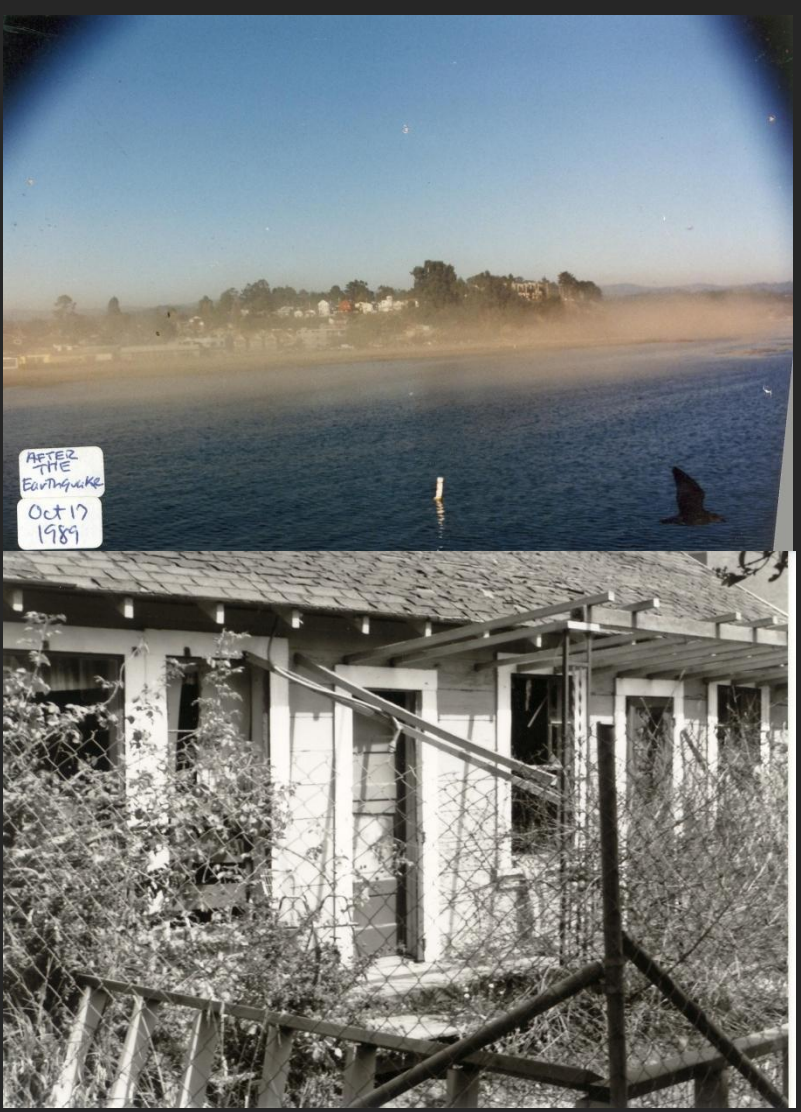
DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
			 <p>The top photograph shows a flooded street with a car partially submerged and debris scattered in the water. A building with a sign that says 'PATIO' is visible in the background. The bottom photograph shows a pier extending into the ocean with large waves crashing against it, creating a significant amount of white foam.</p>
2/10/1983	High Tide	<p>Surf rolls over the sea wall along the Esplanade. Water and debris extend as far as Capitola Avenue.</p>	 <p>The photograph shows a street completely inundated with muddy water and debris. In the background, there are buildings, including one with a sign that says 'PATIO'. A car is partially submerged in the water.</p>

## Timeline of Natural Hazard Events Impacting the City of Capitola



DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
			
3/1/1983	<p style="text-align: center;"><b>High Tide/strong winds</b></p>	<p>Waves damaged the restaurant at the end of the wharf, crashed over beach wall and entered restaurants on the Esplanade, “but damage was nothing compared to the million-dollar loss suffered in January,” said Capitola City Manager Steve Burell.</p>	
2/15/1984	<p style="text-align: center;"><b>Erosion</b></p>	<p>Even though planner Susan Tupper warned the plan might not be a lasting solution, Capitola City Council approved a plan to stabilize its crumbling cliffs by installing artificial seaweed—a series of floating plastic fronds anchored to a sand-filled tube. The intent was to capture sand that drifts down the coast each year, thereby building a sandy beach in front of the cliffs below Grand Avenue. The “ersatz” seaweed lasted until the next major storm and then drifted to sea. Cost \$120,000.</p> <p>The cliff continues to erode at a rate of 12-18 feet per year.</p>	




## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
1987-1992	Drought	Severe drought, water conservation ordered.	
10/17/1989, 5:04pm, Duration of 15 Seconds	Earthquake	<p>Loma Prieta 6.9 mag earthquake with epicenter 3 miles north of Aptos. Comparatively, damage to Capitola homes and businesses was not as severe. Within the city, no buildings damaged and no one was injured physically.</p> <p><i>Damage countywide ultimately estimated to be about \$1 billion.</i></p>	
March 1995	Flood	The creek rose near the village.	

## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
Winter 1996	Flood	Yards and basements of homes along both sides of Soquel Creek near the village were flooded.	
2007-2009	Drought	Water waste regulations strictly enforced; voluntary 15% conservation savings requested by local water providers.	
Winter 2008	High tide	Old bathhouse/boathouse building (Margaritaville/Stockton Bridge Grill) battered by swells.	

## Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
3/11/2011	Tsunami	Capitola Village received warnings, but no damage	
March 24 and 26, 2011	Noble Creek and Tannery Creek Floods	Noble Creek floods village; Tannery Creek rushes through New Brighton Parking lot and undermines the cliff roadway.	

# Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
			

# Timeline of Natural Hazard Events Impacting the City of Capitola

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
			



- C. 1066 41st AVENUE #12-091 APN: 034-711-01**  
**Continued indefinitely.**

**5. PUBLIC HEARINGS**

**A. Local Hazard Mitigation Plan (LHMP)**

Public Works Director Steve Jesberg and Bill Wiseman, RBF Consulting, presented the staff report.

Commissioner Routh stated that there have been several sea level rise studies prepared, and inquired if these studies had been incorporated into the Draft Local Hazard Mitigation Plan.

Commissioner Smith inquired on the priority list shown on Table 38. Specifically, why is the building code pertaining to earthquake a low priority?

Bill Wisemen responded that the city is required to comply with the state building code regardless of the LHMP, therefore the rating is low.

Chairperson Graves suggested the report be sequentially numbered.

Commissioner Smith stated that the completion date 2015 to the move of all the facilities is a good goal for the purpose of funding, but not realistic.

The public hearing was opened.

Anna Gotti requested a copy of the LHMP report.

The public hearing was closed.

Commissioner Newman stated that the overall document was thorough and very detailed. He suggested that there be a summary of the report so that a lay person would be able to understand the document.

Commissioner Routh stated that the LHMP is a documentation of the history of disasters in Capitola. He agreed with Commissioner Smith that the 2015 target date for replacing city hall and the Police Department was unrealistic.

Chairperson Graves inquired on the priority.

Bill Wiseman stated that the document is bureaucratically structured to meet numerous program requirements. The prioritization was created by the LHMP Advisory Committee.

Chairperson Graves clarified that FEMA does not require a prioritization, but other funding sources may require a prioritization of work items.

Public Works Director Steve Jesberg stated what are listed as high priority elements of this plan were determined by looking at hazard mitigation. Building permit enforcement may not be a high priority, but the Building Department will perform ongoing enforcement regardless of the priority in the plan.

**ACTION The Planning Commission received the report and forwarded comments onto the City Council.**

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Local Hazard Mitigation Plan

Comments from Carolyn Swift, Museum Director

LHMP Document Photo Credits

Cover: Photo in lower right hand corner: Courtesy of Karen Nevis

Page 37: Courtesy of Karen Nevis

Page 41: Courtesy of Carolyn Swift

Page 47, figure 9: Courtesy of Sandy Lydon

Page 70, figure 12: Courtesy of Minna Hertel (also correction—it should be c.1984.)

Page 15, figure 15: Courtesy of Carolyn Swift

Appendices

Page 8, top photo: Courtesy of Homer Berry

Page 9: Courtesy of Lee Lester

Page 10: Courtesy of Lee Lester

Page 12, top: Courtesy of Homer Berry

Page 15 (both): Courtesy of Carolyn Swift

Page 18: Courtesy of Minna Hertel

Page 19: (top) Courtesy of Covello and Covello Photography

Page 19: (bottom) Courtesy of Al Lowry

Page 20: (top) Courtesy of Covello and Covello Photography

Page 21: (top) Courtesy of Covello and Covello Photography

## Item #: 9.E. Attach 4.pdf

Page 24: (both) Courtesy of Minna Hertel

Page 25: (top) Courtesy of Minna Hertel

Page 25 (mid) Courtesy of Sandy Lydon

Page 25 (bottom) Courtesy of Minna Hertel

Page 27 (top) Courtesy of Karen Nevis

Page 28 (bottom) Courtesy of Karen Nevis

Page 16 (all) Courtesy of Covello and Covello Photography

Other *suggested* change to Page 7, 2.2 History (not to be picky...) I won't die if these changes are hard to make.

Line one: change 1869 to 1874

Suggested changes starting on line two:

Capitola's owner, Frederick Augustus Hihn, contracted for construction of the resort's first hotel in 1878. He began to subdivide surrounding tracts for the sale of lots for summer homes in 1882. Two years later, Hihn added an annex to the hotel and built a ballroom/skating rink and other amenities. About that time, the railroad through Capitola was broad gauged. Costing between \$100 and \$300, the lots began to sell rapidly with the added convenience of the improved rail line. Hihn's improvements continued, including construction of the grand Hotel Capitola from 1894-1897 and the addition of the Union Traction Company streetcar line in 1903-04.

Paragraph two: When Hihn died in 1913, his Capitola resort properties were inherited by his daughter, Katherine Cope Henderson. In 1919, she sold to capitalist H. Allen Rispin and a syndicate of San Francisco investors.

Scratch: Paragraph two, line three: "Rispin changed the resort's name from Camp Capitola to Capitola by-the-Sea." (It was Hihn who changed the title in 1903.)

Paragraph three: Actually, the Great Depression did not cause a significant reduction in the number of visitors. People responded to the Depression the same way that people are responding now. Everything was harder during the Depression (many buildings burned, including the hotel), but every sunny summer day the beach was packed and every available parking spot was taken.

Everything else is fine.

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## CITY COUNCIL AGENDA REPORT

MEETING OF DECEMBER 13, 2012

FROM: COMMUNITY DEVELOPMENT DEPARTMENT

SUBJECT: CONSIDERATION OF AN ORDINANCE AMENDMENT TITLE 10 SECTION 36.055 OF THE CAPITOLA MUNICIPAL CODE PERTAINING TO PARKING METER ZONES/RATES, AND AN AMENDMENT TO TITLE 17 SECTION 46.090 AMENDING THE CITY'S LOCAL COASTAL PLAN TO REFLECT THESE CHANGES [1ST READING]

**RECOMMENDED ACTION:** Approve for a first reading, the proposed ordinance amending Section 10.36.055 and Section 17.46.090 as shown on Attachment 1.

**BACKGROUND:** The City of Capitola's current process to modify parking rates or zones requires the City to amend its Local Coastal Plan. This amendment would allow the City to make future changes without requiring an amendment to the Local Coastal Plan. The new process will be for the City to issue itself a Coastal Permit when the City Council changes hours, meter/pay station rates, add or eliminate meters/pay stations or change areas where meters/pay stations are installed. The amendment to Section 17.46.09 will allow changes for parking rates and zones to go directly to the City Council rather than coming first to the Planning Commission.

The California Coast Act currently defines parking rates, hours and zones as "development" resulting in the requirement for the Coastal Permit anytime the City makes a modification. The Coastal Permit issued by the City Council will be appealable to the Coastal Commission if someone in the community or on the Coastal Commission feels there are coastal access issues related to the change.

This amendment will NOT change any current parking rates, times or zones.

The Planning Commission held a public hearing at the meeting on November 1, 2012 and unanimously recommended that the City Council approve the proposed ordinance amendments. The purpose of the proposed amendments is not change any of the current rates or zones but to change the process for how they will be established in the future.

City staff and the Coastal Commission both agree that the current process is cumbersome and time consuming. The process of allowing the City to issue a Coastal Permit will eliminate the need to process a Coastal Land Use Plan amendment anytime there is a change. This change will not eliminate the requirement to issue a Coastal Permit and to provide a public notice regarding changes in a parking zones, hours or rates. It does not eliminate the ability of citizens, business owners or the Coastal Commission to appeal the action of the City Council to the Coastal Commission.

**CEQA REVIEW** - Categorically Exempt

### **ATTACHMENTS**

1. Draft Ordinance Amendment to Section 10.36.055 and 17.46.090.

Report Prepared By: Susan Westman  
General Plan Coordinator

Reviewed and Forwarded  
by City Manager: 

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ORDINANCE NO. \_\_\_\_

**AN ORDINANCE OF THE CITY OF CAPITOLA  
AMENDING SECTION 10.36.055 B OF THE CAPITOLA  
MUNICIPAL CODE PERTAINING TO PARKING METER RATES AND ZONES AND  
AMENDING SECTION 17.46.090 COASTAL PERMIT APPROVAL**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CAPITOLA AS FOLLOWS:

Section 1. Section 10.36.055 is hereby amended to read as follows:

**10.36.055 Parking meter zones/rates.**

---

A. ~~The following parking meter zones are hereby established in the city of Capitola: Parking meter zones shall be established by the City Council.~~

~~1. Parking Meter Zone A(1). The area labeled as Zone A(1) on the map attached hereto as Exhibit "A" found on file in the office of the city clerk, shall constitute parking meter Zone A(1). The city public works director, acting in the director's capacity as superintendent of streets, is hereby authorized to install parking meters equipment in conformance with the zones and rates established by the City Council. The director shall maintain on file a map showing parking meter zones established by the City Council. in all public parking spaces located in zone A(1) and to place appropriate signage in zone A(1) relative to said metered parking. Parking meters will operate in zone A(1) each day of the week from the hours of eight a.m. to eight p.m. The city council, by resolution or minute order, may designate days when said parking meters equipment will not operate.~~

~~Parking meter zone A(1) includes parking spaces along both sides of the following streets located in and surrounding the Capitola Village:~~

- ~~a. Capitola Avenue from Monterey Avenue to Boulah Drive;~~
- ~~b. Monterey Avenue from Esplanade to the Union Pacific Railway;~~
- ~~c. Esplanade along its entire length from Stockton Avenue to Monterey Avenue;~~
- ~~d. San Jose Avenue from Capitola Avenue to Esplanade;~~
- ~~e. Stockton Avenue from Capitola Avenue to Cliff Drive;~~
- ~~f. Wharf Road from Stockton Avenue to the Capitola Municipal Wharf;~~

~~2. Parking Meter Zone A(2). The area labeled as Zone A(2) on the map attached hereto as Exhibit "A" found on file in the office of the city clerk, shall constitute parking meter zone A(2). The city public works director, acting in the director's capacity as superintendent of streets, is hereby authorized to install parking meters in all public parking spaces located in zone A(2) and to place appropriate signage in zone A(2) relative to said metered parking. Parking meters will operate in zone A(2) each day of the week from the hours of eight a.m. to eight p.m. The city council, by resolution or minute order, may designate days when said parking meters will not operate.~~

~~Parking meter zone A(2) includes parking spaces along both sides of the following street:~~

- ~~a. Cliff Drive from Stockton Avenue to the city limits;~~

~~3. Parking Meter Zone B. The city-owned parking lot adjacent to, and directly to the north and east of Capitola City Hall, portion of APN 35-141-33 located at 426 Capitola Avenue, which encompasses the area known as Pacific Cove Parking Lot, as depicted on the map attached hereto as Exhibit "B" found on file in the office of the city clerk, shall constitute parking meter zone B. The city public works director, acting in the director's capacity as superintendent of streets, is hereby authorized to install parking meters in all public parking spaces located in zone B and to place appropriate signage in zone B relative to said metered parking. Parking meters will operate~~

**Item #: 9.F. Attach 1.pdf**

~~in zone B each day of the week from the hours of eight a.m. to eight p.m. The city council by resolution or minute order may designate days when said parking meters will not operate.~~

B. ~~The following parking meter rates are hereby established in the city of Capitola:~~

~~Zone A(1) (Village Area)..... \$2.00 per hour~~

~~Zone A(2) (Cliff Drive Area)..... \$1.00 per hour~~

~~Zone B (Pacific Cove Parking Lot)..... \$0.75per hour~~

~~Section 2. This ordinance shall take effect and be in force thirty (30) days after final adoption or upon approval of Coastal Development Permit No.09-002, which ever occurs last.~~

Parking meter zones and rates shall be established by City Council resolution. Parking meter fees will be shown in the City's fee schedule.

Parking meter rates and zones in effect at the time of this ordinance amendment will remain in effect until modified by the City Council and;

Section 2. Section 17.46.090 is hereby amended to read as follows:

Section 17.46.090 Coastal permit approval.

A. Approving Authority. Action on a coastal permit shall be taken by the planning commission or city council on appeal or concurrent with other required permit applications- except Coastal Permits related to parking equipment rates, hours or zones on public property shall be considered only by the City Council.

This ordinance is being introduced on the 22<sup>nd</sup> day of November, 2012 and was passed for a first reading by the City Council by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED: \_\_\_\_\_  
Stephanie Harlan, Mayor

ATTEST:

\_\_\_\_\_  
Susan Sneddon, City Clerk