



## **AGENDA**

### **CAPITOLA COMMISSION ON THE ENVIRONMENT**

Monday, September 22, 2014 – 6:00 p.m.  
City Council Chambers  
420 Capitola Avenue, Capitola CA

**1. CALL TO ORDER & ROLL CALL**

COMMISSION MEMBERS: Bruce Arthur, Amie Forest, Maddie Marlatt, Dennis Norton, Kristin Sullivan, Elisabeth Russell - Chairperson

**2. WRITTEN AND ORAL COMMUNICATIONS**

*The commission will receive written communications and consider brief oral communications about items not on the agenda.*

**3. APPROVAL OF MINUTES:** August 18, 2014

**4. CLIMATE ACTION PLAN**

- a. Safeguarding California: Reducing Climate Risk
- b. Energy Benchmarking – presentation by Joe Button, AMBAG Special Projects Associate
- c. Draft Green House Gas Reduction Measures

**5. ITEMS FOR NEXT AGENDA**

**6. ADJOURNMENT** – Adjourn to workshop on Monday, October 20, 2014 at 6:00 p.m., in the City Hall Council Chambers, 420 Capitola Avenue, Capitola, California.

If you require special assistance in order to attend the meeting, including needs addressed by American with Disabilities Act, please notify the City at least 3 days prior to meeting by calling (831) 475-7300.





## MEETING MINUTES CAPITOLA COMMISSION ON THE ENVIRONMENT

Monday, August 18, 2014 – 6:00 P.M.  
City Council Chambers  
420 Capitola Avenue, Capitola CA

Vice-Chairperson Kristin Sullivan called the meeting to order at 6:06 p.m.

### 1. CALL TO ORDER & ROLL CALL

Members present: Bruce Arthur, Amie Forest, Maddie Marlatt, Dennis Norton, and Kristin Sullivan–Vice- Chairperson

Members absent: Elisabeth Russell

City Staff Present: Steve Jesberg, Danielle Uharriet

Community Members Present: None

### 2. WRITTEN AND ORAL COMMUNICATIONS

Amie Forest suggested that the Commission utilize Google Docs as a way to share information, studies and reports from outside sources with fellow commissioners. Steve Jesberg stated that staff will need to verify that this would not be a violation of the Brown Act, and that the information posted may need to be available to the public. He will research the subject and provide an update at the next meeting.

### 3. APPROVAL OF MINUTES

Bruce Arthur made a motion to approve the June 16, 2014 meeting minutes. Kristin Sullivan seconded. Motion passed 3-0, Amie Forest abstained.

### 4. OTHER BUSINESS:

#### a. Climate Action Plan

Danielle Uharriet stated the memo provided by Rich Grunow, Community Development Director, summarized the current status of the CAP. Mr. Grunow will be presenting draft green house gas reduction measures at the September COE meeting.

- Reach Codes

A reach code is a strategy in the California Long-term Energy Efficiency Strategic Plan to attain the goal of Zero New Energy buildings. There was no further discussion on the item.

#### b. Rispin Gardens-grant update and status

Steve Jesberg stated that the city had received a \$375,000 grant for improvements, including an upgraded ADA pathway, at Rispin. Staff is currently preparing an RFP for a park plan that will be reviewed through an EIR process. Public workshops/meetings will be held to receive community design input possibly in the fall or winter 2014.

Dennis Norton supported removing the chain link fencing as soon as possible. He recommended using building details that were stored from the prior project, such as pillars and other architectural features.

Kristin Sullivan suggested that the ADA pathways utilize environmentally friendly/green paving materials. The landscaping should be native plantings.

#### c. City Hall Landscape Project and Parking Lot LID Project

Steve Jesberg stated that the City has applied to receive a financial incentive to participate in a Proposition 84-funded Low Impact Development (LID) Design Program. The initial site assessment identified stormwater management features that capture and infiltrate rainwater from the city hall parking lot, and identified opportunities to improve landscape water conservation and reduce irrigation run-off from the parking areas.

The project will be ranked among other Program candidates according to project benefits. The highest-ranking projects will be selected to advance to the LID Design Phase for development of a preliminary design plan. Each program phase will evaluate projects on various LID benefits prior to advancing to the next stage of design and construction. City funding will be required for each continued phase of the program.

d. Review of water usage and status of turf removal projects

Steve Jesberg highlighted the city examples of sod removal throughout the city, low flow fixture installation at all city facilities and the overall water reduction of ~32%. A possible project is reclaiming shower water at Esplanade Park to irrigate the grass. Staff has had the water tested and determined that although salty, it is potentially a resource.

Bruce Arthur suggested synthetic turf be considered for Esplanade Park and Jade Street Park playing fields. The turf in Esplanade Park has been in place for many years adapting to salty conditions, therefore reclaimed water from the shower would not be harmful.

Amy Forest suggested a reclaimed water sign be placed within the park.

Dennis Norton supported keeping the lawn in Esplanade Park and pursuing reclaimed shower water.

Kristin Sullivan did not support synthetic turf without research that showed the turf was an environmentally sound product.

e. Collaboration with Soquel Creek Water District for Education and Outreach

Amie Forest encouraged the city to discuss further water reduction measures with Soquel Creek Water District. She suggested that the city be featured on the district's website for the water reduction efforts. She stated a new program, Conservation Plus, will be launched in September.

## 5. ITEMS FOR NEXT AGENDA

- a. Climate Action Plan – Draft Green House Gas Reduction Measures
- b. Energy Benchmarking of city buildings

**6. ADJOURNMENT** – The commission adjourned at 7:06 p.m. to a regular meeting on Monday, September 22, 2014 at 6:00 p.m., in the City Hall Council Chambers, 420 Capitola Avenue, Capitola, California.

Approved at the meeting of September 22, 2014

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Danielle Uharriet  
Environmental Projects Manager

**CITY OF CAPITOLA  
COMMISSION ON THE ENVIRONMENT  
Agenda Report**

**Meeting Date: September 22, 2014**

**Agenda Item: 4.A**

**Subject: Safeguarding California: Reducing Climate Risk**

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California Climate Adaptation Strategy – In July 2014 an update of the 2009 California Climate Adaptation Strategy was completed. *Safeguarding California – Reducing Climate Risk* is the plan developed by the Natural Resources Agency of California as an implementation tool to help foster a vibrant and sustainable future for California. A copy of the updated plan has been provided in the packet.



# AMBAG ENERGY WATCH BENCHMARKING REPORT

**Date:** September 4, 2012

**To:** City of Capitola

**Attn:** Steve Jesberg

Thank you for participating in the Association of Monterey Bay Area Governments (AMBAG) Energy Watch program's Municipal Facility Benchmarking project.

AMBAG Energy Watch staff has completed the benchmarking process for **a total of 4 facilities** (4 buildings) in the City of Capitola's portfolio. Based on the EPA's criteria, a total of **0 of these facilities were eligible to receive an ENERGY STAR® Performance Rating** score, and the **average rating for these facilities is N/A**.

## **BEST PERFORMING FACILITIES**

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The following **2 buildings are performing well** in comparison to the energy performance of similar buildings nationwide. If a building received a **Performance Rating score higher than 75**, this building is eligible to apply for ENERGY STAR® status due to their exceptional energy performance:

1. **City Gym**- 250 Washburn Ave., Capitola, CA 95010
2. **Corp Yard**- 430 Kennedy Dr., Capitola, CA 95010

## **REMAINING FACILITIES**

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The **2 remaining facilities are performing on par with or slightly better than the weather normalized national average of similar facilities**. While these buildings should not be considered the highest priority for energy efficiency improvements, there are still opportunities to improve building performance substantially through cost-saving energy upgrades in all of these facilities.

## **ACTION PLAN**

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AMBAG Energy Watch staff (Joseph Button) is here to assist and reviewing the report and identifying cost-saving energy efficiency opportunities at County facilities. The building profile data from Portfolio Manager will help guide this discussion. Joseph can be reached by email at [jbutton@ambag.org](mailto:jbutton@ambag.org), or by phone: 831-264-5089.

**Table 1: Best Performing Facilities**

Facility Name	Facility Address	ENERGY STAR Perf. Rating	Facility Floor Space	Annual Site Electric Use (kWh)	Annual Site Natural Gas Use (Therms)	Facility EUI (kBtu/Sq. Ft.)	Nat'l Median EUI** (kBtu/Sq. Ft.)	% Difference
City Gym	250 Washburn Ave	N/A	10,000	23,874	2,908	53	100	-42
Corp Yard	430 Kennedy Dr	N/A	4,600	19,364	488	58	96	-38

\*Non-ratable buildings are defined as buildings that currently are ineligible to receive the ENERGY STAR rating due to its operating characteristics and/or building type.

\*\* EUI - Energy Use Intensity

**Table 2: Remaining Performing Facilities**

Facility Name	Facility Address	ENERGY STAR Perf. Rating	Facility Floor Space	Annual Site Electric Use (kWh)	Annual Site Natural Gas Use (Therms)	Facility EUI (kBtu/Sq. Ft.)	Nat'l Median EUI** (kBtu/Sq. Ft.)	% Difference
City Hall/ PD	420 Capitola Ave	N/A	10,600	126,144	2,558	158	164	-2
Community Center	4400 Jade St	N/A	5,400	27,159	1,268	78	94	-13

**Table 3: Overall Building Performance Summary**

	Year ending 3/2012
Total Number of Facilities	4
Total Floor Space (sq. ft.)	30,600
Average Rating	N/A
Number of Facilities with a Rating	0
Number of Non-ratable Facilities*	4
Total Energy Use (kBtu)	2,897,109
Average Energy Intensity (kBtu/Sq. Ft.)	94.7
Total Site Electric Use (kWh)	196,541
Total Site Natural Gas Use (Therms)	7,221



## BACKGROUND

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As a direct result of your participation in this project, AMBAG Energy Watch completed an energy assessment for key buildings and facilities in your jurisdiction using the U.S. EPA's building benchmarking system called ENERGY STAR® Portfolio Manager. Portfolio Manager is an interactive energy management tool that allows users to track and assess energy consumption, utility costs, and building emissions across a portfolio of buildings in a secure online environment.

Using the Portfolio Manager platform some buildings are eligible to receive an EPA energy performance rating (or "Benchmark Score"), which compares the facility's performance to similar buildings across the country. The EPA energy performance rating indicates how efficiently buildings use energy on a 1-100 scale; a rating of 50 indicates average energy performance while a rating of 75 or better indicates top performance. EPA's energy performance rating system accounts for the impact of weather variations as well as changes in key physical and operating characteristics of each building. Based on the information entered (such as building size, location, number of occupants, and number of personal computers), the energy performance rating compares your building's energy use to the actual energy use of similar buildings around the country.

Not all buildings are eligible to receive the energy performance rating. However, buildings that are not eligible to receive a rating still benefit from the benchmarking process, since performance improvements for all buildings can be tracked over time by comparing current performance to the baseline established in Portfolio Manager.

The Portfolio Manager system provides detailed historical energy consumption analytics over a 5-year period (i.e. 2007 through 2012), and it also auto-populates this information in perpetuity moving forward. By understanding current and past energy use through benchmarking, AMBAG Energy Watch and staff from our participating member jurisdictions can work collaboratively to more efficiently identify opportunities to improve energy performance and achieve significant utility cost savings. By looking at performance at the whole building level, we can set building energy performance goals and identify opportunities for energy cost savings through operational improvements and system optimization as well as capital upgrades and retrofits.

## NEXT STEPS

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Energy Watch staff will provide login information to allow your staff to access the Portfolio Manager building profiles we have setup for your jurisdiction. We will work closely with your staff to ensure that maximum value is extracted from the information provided by the Portfolio Manager system. Our staff will analyze the data to identify opportunities for energy and cost saving improvements in your portfolio of buildings and facilities, and will work with your staff to find appropriate financing options to fund those projects.

## CONTACT INFORMATION

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Thanks again for participating in this valuable AMBAG Energy Watch Benchmarking project! We look forward to continuing to provide support for all of your energy efficiency efforts and goals.

If you have questions or comments about the AMBAG Energy Watch Municipal Facility Benchmarking project please contact Chris Sentieri by email: [csentieri@ambag.org](mailto:csentieri@ambag.org), or by phone: 831-264-5102.

## APPENDIX



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## Average Site Energy Use Intensity (EUI)

The site energy intensity (Kbtu/Sq. Ft.) this facility would consume if it had a national energy performance rating of 50, the rating associated with median performance.

## Average Weather Normalized Source EUI

The weather-normalized source energy intensity (kbtu/Sq. Ft.) for the energy baseline 12 month evaluation period.

## Energy Performance Rating (1-100)

The benchmark rating for a facility on a scale of 1-100 relative to similar buildings nationwide using EPA's national energy performance rating system. The benchmark rating is based on your facility's source energy use, level of business activity, and geographical location.

The rating indicates the percentile rank of the facility once all required data is entered. A rating of 68 means that the facility is in the 68th percentile of all comparable facilities nationwide. To qualify for the ENERGY STAR, a facility must have a rating of 75 or higher. Please see ENERGY STAR Eligibility Criteria.

## National Median Source EUI

For a building with a rating, this defines the source energy intensity (kbtu/gallons per day) this facility would consume if it had a national energy performance rating of 50, the rating associated with median performance. For a building not eligible for a rating, this defines the national median source EUI calculated in kbtu/gallons per day as a weighted average across all buildings of a similar type. This metric is only available for Water and Wastewater facilities.

## % Difference from National Median Source EUI

For a building with a rating, percent difference is computed from the actual source EUI of the building and the source EUI for a median performance rating of 50. For a building not eligible for a rating, percent difference is computed from the actual source EUI of the building and the national median source EUI associated with that building type. A negative number indicates that a building is performing better than the national median.

## Ratable Buildings

1. All Buildings must be at least 5,000 sqft and with qualified space types (See below).
2. Space types that are eligible for Energy Star Rating:
  - a. Bank/Financial Institution
  - b. Courthouse
  - c. Data Center
  - d. Hospital
  - e. Hotel
  - f. House of Worship
  - g. K-12 School
  - h. Medical Office
  - i. Municipal Wastewater Treatment Plant
  - j. Office
  - k. Residence Hall
  - l. Retail Store
  - m. Senior Care Facility
  - n. Supermarket
  - o. Warehouse

# CAPITOLA QUARTERLY FACILITY ENERGY REPORT

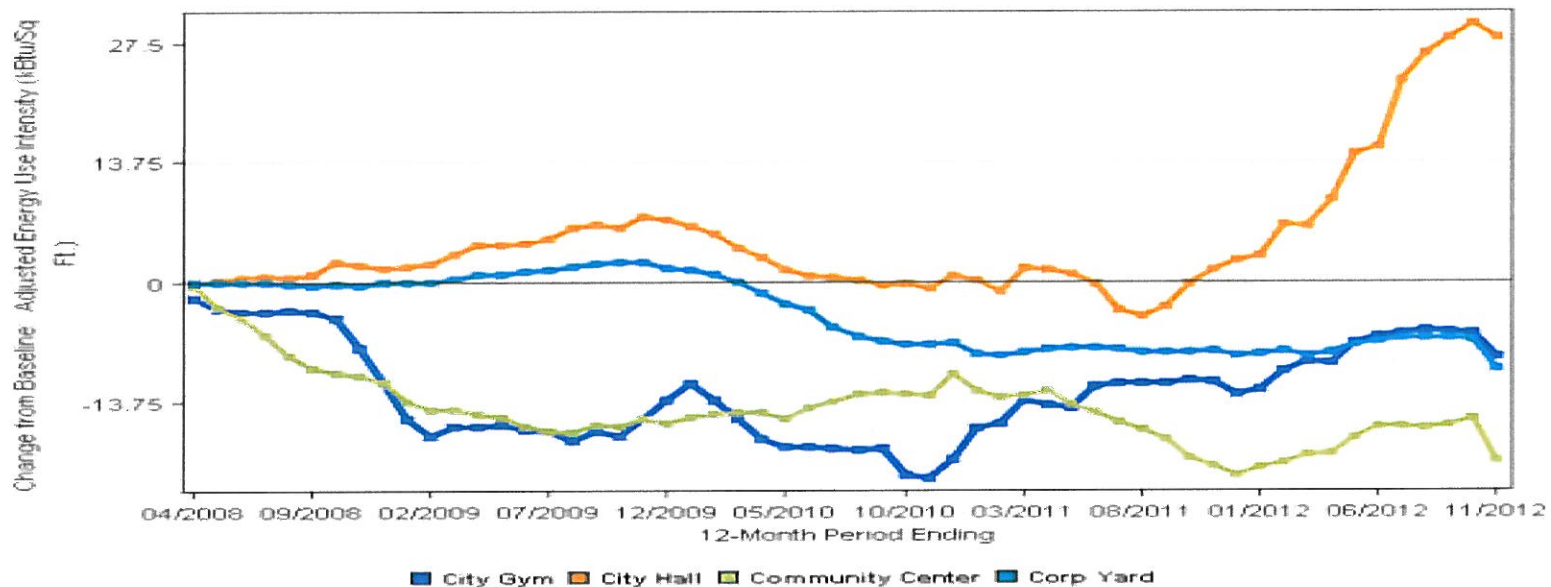


## My Portfolio: City of Capitola JANUARY 2013

Facility Name	Current Site Energy Intensity (kBtu/Sq. Ft.)*	Energy Use Change from Spring 2008 Baseline	Electric Use (kilowatt hours)*	Natural Gas Use (therms)*	Total Energy Cost per Sq. Ft.	Annual Energy Cost*
City Gym	37.2	-9.8	25,001	2,863	\$0.60	\$5,994.57
City Hall / PD	69.3	20.4	141,777	2,512	\$2.23	\$23,626.02
Community Center	44.2	-16.1	26,102	1,498	\$1.03	\$5,552.19
Corp Yard	25.1	-10.1	19,785	480	\$0.85	\$3,901.43
<b>TOTALS</b>			<b>212,666</b>	<b>7,354</b>		<b>\$39,074.21</b>

\*Based on the last 12 months of energy use

### Baseline Comparison Graph April 2008 - November 2012



# City of Capitola 2013 Facility Energy Report



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The 2013 Facility Energy Report is intended to help city staff understand their facilities energy performance in the past year. Energy Watch exists to support this process and identify potential energy efficiency opportunities that reduce energy costs. This report is designed to provide two types of comparative analysis: year over year changes and long term trending. In most facilities, 2008 is the baseline year. The short term analysis is intended to track any drastic energy consumption changes that are the result of energy efficiency upgrades or significant changes in operation. The longer term comparison is intended to reveal energy use trends in facilities.

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Page 2 of this report has the Capitola Municipal Energy Use Data Table. The 2013 data has a few points of interest regarding energy consumption at City of Capitola facilities. The following observations (highlighted in green or red on the Energy Use Report chart) will help guide follow-up discussions between City staff and Energy Watch:

- The City Hall has observed a slight increase in energy consumption since 2008.
- In 2013, electric consumption (6%) and cost (8%) increased slightly at City Hall.
- The Energy Use Intensity at the City Gym increased 19% in 2013. This was due to a 26% increase in natural gas consumption at the site.
- The Community Center and Corporate Yard have had very steady energy use profiles since 2008.

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Energy Watch staff would enjoy the opportunity to discuss this report in person with relevant stakeholders. At the request of municipal staff, Energy Watch will conduct more in depth analysis for specific facilities. The Portfolio Manager benchmarking software has many additional energy-use metrics that can be integrated into a facility energy report. Examples include: Energy Star score (for eligible facilities), percent better than national median, waste water energy use intensity, weather normalized energy use, and renewable energy generation.

Please contact Joseph Button at Energy Watch ([jbutton@ambag.org](mailto:jbutton@ambag.org)) or 831.264.5089 if you have any follow-up questions.

CITY OF CAPITOLA  
MUNICIPAL ENERGY USE REPORT  
2013

Facility Name	Energy Use Intensity (kBtu/Sq. Ft.)			National Average	Energy Cost (\$/ Sq. Ft.)			Electric Use (kilowatt hours)			Natural Gas Use (therms)			Annual Energy Cost		
	2013	2012	2008		2013	2012	2008	2013	2012	2008	2013	2012	2008	2013	2012	2008
City Hall / PD	69.5	68.3	67.2	59	\$2.40	\$2.23	\$2.27	150,526	142,678	146,744	2,226	2,372	2,112	\$25,468	\$23,642	\$24,102
City Gym	42	35.2	38.6	65.9	\$0.62	\$0.59	\$0.61	24,659	24,871	25,138	3,360	2,671	3,003	\$6,217	\$5,889	\$6,054
Community Center	43.2	43.3	41.6	45.5	\$1.06	\$1.01	\$0.99	26,833	25,924	25,548	1,419	1,454	1,375	\$5,718	\$5,431	\$5,328
Corp Yard	23.4	24.6	23.7	43.1	\$0.84	\$0.84	\$0.85	19,271	19,766	19,962	417	458	410	\$3,854	\$3,883	\$3,893
<b>TOTALS</b>								<b>221,289</b>	<b>213,239</b>	<b>217,392</b>	<b>7,422</b>	<b>6,955</b>	<b>6,900</b>	<b>\$41,257</b>	<b>\$38,844</b>	<b>\$39,377</b>



**CITY OF CAPITOLA  
COMMISSION ON THE ENVIRONMENT  
Agenda Report**

**Meeting Date: September 22, 2014**

**Agenda Item: 4.C**

**Subject: Climate Action Plan – Draft Greenhouse Gas Reduction Measures**

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**BACKGROUND:** The City of Capitola is in the process of developing a Climate Action Plan (CAP) to meet State greenhouse gas (GHG) reduction goals pursuant to Assembly Bill 32 and Senate Bill 375. The CAP will establish goals, principles, and strategies to reduce the City's GHG emissions, conserve energy and natural resources, and to prepare the community for the expected effects of global warming.

Implementation of the CAP will advance sustainability policies in the adopted General Plan Update and will promote community values, including protecting our water and air resources; reducing the waste stream to landfills; improving energy efficiency; encouraging alternative transportation options and reducing automobile dependency; and creating a healthy and livable community. Development of a CAP requires the City to establish an inventory of existing and projected emissions and to develop strategies to achieve a 15% emission reduction by 2020.

**DISCUSSION:** City staff and their consultants have developed the attached list of potential GHG reduction measures. These draft measures are consistent with the policies in the General Plan Update. In addition, draft measures are modeled after and/or take into consideration the recommendations from the Capitola Green Jobs study, measures from the City of Capitola Draft Energy Action Plan, City of Santa Cruz CAP, model policies from the California Air Pollution Control Officers Association (CAPCOA) and California Institute for Local Government (ILG) Climate Action Network, and recommendations from ICLEI-Local Government for Sustainability.

Draft measures are based on the CAP measures presented to the General Plan Advisory Committee (GPAC) on January 16, 2013. In general, the GPAC recommendation was to focus on education and incentives, rather than regulatory measures, and to particularly avoid increasing costs to property owners when selling or renovating homes and businesses. However, in order to show quantifiable GHG reductions, some regulatory measures are needed.

The draft measures take previous feedback into consideration and have been further refined to reflect current policies, programs, and best practices. The CAP will include a mix of strategy types. Some strategies will encourage actions that can lead to a reduction in GHG emissions, but because they are voluntary, cannot show a quantified GHG emission reduction. Other strategies will need to be written with strong and clear language in order to show a quantified GHG emission reduction and help the City to achieve its GHG emission reduction targets.

After the draft measures have been reviewed by the Commission on the Environment, more precise GHG emissions reductions from each measure or group of measures will be modeled. These modeled reductions will be evaluated against the City's reduction targets for 2020 and 2035. Depending on whether draft measures enable Capitola to meet its reduction targets, the measures may undergo further revisions. Once a final list of reduction measures is in place, these measures and the revised modeling results will be incorporated into the Draft CAP.

## **Draft Measures and GHG Reduction and Cost Effectiveness Estimates**

Draft reduction measures are presented with estimated “order-of-magnitude” GHG reductions, and estimated costs that could be incurred by the City and/or project applicants. Draft measures are placed into 10 categories: Land Use and Community Design; Economic Development; Transportation; Green Building and Energy Efficiency; Renewable Energy; Water and Wastewater; Solid Waste; Open Space and Food Systems; Purchasing; and Community Action. Within each of these general categories, interrelated measures that support one another have been grouped for the purpose of estimating potential reductions and cost-effectiveness.

GHG reduction estimates are measured in metric tons of CO<sub>2</sub> equivalent or MTCO<sub>2</sub>e. Order-of-magnitude estimates are expressed in ranges that reflect powers of 10, with the maximum end of a range being ten times larger than the minimum. The purpose of the order-of-magnitude estimates is to offer perspective on the relative effectiveness of groups of related measures, without attempting to calculate specific reductions ahead of the more robust quantitative modeling that will occur once draft measures are finalized.

GHG reductions were estimated based upon the performance of similar measures in other municipalities, adjusted for Capitola’s population and current level of GHG emissions. In some cases, since certain measures do not directly result in decreases to emissions, it is not possible to quantify associated GHG reductions. For example, it is not possible to estimate emissions reductions from draft measures in the Community Action category, since these measures primarily relate to fostering awareness and partnerships that support climate action goals.

Cost-effectiveness estimates for grouped measures were based on a qualitative evaluation of potential costs, relative to anticipated order-of-magnitude GHG reductions. In some cases, reduction measures may be cost-neutral or cost-beneficial in and of themselves, even before the potential for GHG reductions is considered. In these cases, cost-effectiveness is estimated to be high, even if GHG reductions are low or cannot reasonably be quantified. For example, although reductions from urban tree planting may be relatively low and difficult to estimate, the environmental and community benefits of well-selected urban trees often outweigh their costs. Thus, urban forestry programs are regarded as a highly cost-effective GHG reduction strategy. As specific quantitative modeling is undertaken, it will be possible to more firmly establish the cost-effectiveness for particular measures or groups of measures.

## **Commission on the Environment Review**

Staff requests the Commission review the attached list of draft GHG reduction measures and offer feedback regarding:

1. Are there measures on the draft list that should be eliminated?
2. Are there additional measures which the Commission believes should be considered?
3. Are there measures which should be retained, but modified?

## **Next Steps**

Once feedback is received from the Commission, staff and the consultant team will incorporate comments into a revised list of GHG Reduction Measures that will undergo quantitative modeling to determine if the measures collectively enable the City to meet its reduction targets. Staff will report back to the Commission once quantitative modeling has been completed.



## STRATEGY - LAND USE AND COMMUNITY DESIGN

### Land Use - General

GHG Reduction Estimate: 100 - 1,000 MTCO<sub>2</sub>e

Cost Effectiveness Estimate: High

Number	Reduction Measure	Costs
LU-1	Encourage land use intensity with connectivity near retail, employment, and transit centers.	Low. GP Update included higher intensity near retail, employment, & transit. Complementary changes to Zoning Code will also be proposed. Applicant impacts not anticipated.
LU-2	Support well-designed infill development on vacant and underutilized sites that enhances Capitola's quality of life.	
LU-3	Encourage development of affordable housing, retail services and employment in areas of Capitola best served by current or expanded alternative transportation options.	

### Land Use and Community Design - Mixed-Use

GHG Reduction Estimate: 100 - 1,000 MTCO<sub>2</sub>e

Cost Effectiveness Estimate: High

Number	Reduction Measure	Costs
LU-4	Encourage appropriate mixed-use development in the Mixed-Use and Commercial zoning districts.	Low. Measures consistent with GP Update and can be incorporated into Zoning Code update. Applicant impacts not anticipated.
LU-5	Amend the Zoning Code to encourage new development or significant redevelopment in the Village Mixed-Use zoning district to be vertical mixed-use (i.e., residential or office above ground-floor retail).	

### Land Use and Community Design - Shared Uses

GHG Reduction Estimate: 10 - 100 MTCO<sub>2</sub>e

Cost Effectiveness Estimate: High

Number	Reduction Measure	Costs
LU-6	Amend the Zoning Code and other City regulations as needed to encourage and/or remove barriers to establishing "co-working" collaborative work spaces in Capitola.	Low. Amendments can be incorporated into Zoning Code update. Applicant impacts not anticipated.

### Land Use and Community Design - Secondary Dwellings

GHG Reduction Estimate: 10 - 100 MTCO<sub>2</sub>e

Cost Effectiveness Estimate: High

Number	Reduction Measure	Costs
LU-7	Evaluate secondary dwelling unit standards in the Zoning Code and revise as appropriate to encourage additional secondary dwelling units development.	Low. Amendments can be incorporated into Zoning Code update. Applicant impacts not anticipated.

Land Use and Community Design - Pedestrian/Bike Access		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: High		
Number	Reduction Measure	Costs
LU-8	Amend the Zoning Code to require new major developments to provide for safe and convenient pedestrian and bicycle connections between residential and commercial areas.	Low-Medium. Amendments can be incorporated into Zoning Code update. Proposed development standards may result in increased design and construction costs and may not meet developer objectives.
LU-9	Revise development standards to promote a pedestrian-oriented environment in non-residential areas through reduced setbacks, principle entries that face a public street, and window and storefront requirements along the ground floor.	

Land Use and Community Design - Municipal		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: High		
Number	Reduction Measure	Costs
LU-10	Allow and promote telecommuting among City employees.	Low-Medium. May require additional/expanded IT services and employee monitoring. No additional applicant costs anticipated.

STRATEGY - ECONOMIC DEVELOPMENT		
Retail		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
ED-1	Evaluate local sales leakage and work with Santa Cruz County and other jurisdictions to provide necessary services within the county to reduce "over the hill" shopping.	Low. City staff will continue to participate in regional economic development collaborations.
ED-2	Support efforts to attract resident-serving commercial uses in the area south of Capitola Road.	
ED-3	Identify locations in the City's commercial districts where ground-floor commercial uses are necessary to maintain a concentrated and functional business district, and amend the Zoning Code to require ground-floor commercial uses in these locations.	Prohibitions on office, professional, or medical uses in commercial areas would limit property owner options.

Economic Development - Jobs		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
ED-4	Support regional efforts to recruit and retain businesses that provide high-wage jobs.	
ED-5	Support regional efforts to retain and create jobs within Santa Cruz County to reduce the number of "over the hill" commute trips.	Low - Medium. Staff will continue to participate in regional economic development collaboratives; some additional education/outreach will be necessary. No additional applicant costs anticipated.
ED-6	Actively participate in and be aware of the activities of regional workforce development organizations, such as the Comprehensive Economic Development Strategy Committee, Workforce Investment Board, and the Santa Cruz County Business Council, and publicize these efforts locally through the City's website and brochures.	
ED-7	Build on existing outreach and regular events to inform business owners and entrepreneurs of available workforce development resources.	

Economic Development - Local/Small Business		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
ED-8	Support regional small business assistance programs, particularly for those with an environmental focus, and publicize the availability of this assistance via local partners, the City's website, and other economic development outlets. Coordinate and promote green building programs and pursue grant funding applications.	Low - Medium. City resources needed for additional education/outreach efforts. No additional applicant costs anticipated.
ED-9	Pursue and support collaborations with local business initiatives/attractions to draw customers and visitors.	
ED-10	In collaboration with the Capitola-Soquel Chamber of Commerce and the Capitola Village Business Improvement Area, conduct regular surveys of merchants to assess the needs and issues of locally-owned and independent businesses.	

STRATEGY - TRANSPORTATION		
General		
GHG Reduction Estimate: 1000 - 10,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: High		
Number	Reduction Measure	Costs
TR-1	Continue to implement intelligent transportation systems, roundabouts, signal timing and synchronization, and other efficiency methods that decrease idling time and congestion.	Medium. Staff would continue to participate in regional transportation initiatives. Additional funding and staff time needed to develop improvement plans and install/construct improvements. No additional applicant costs expected.
TR-2	Actively participate in County and regional transportation planning working groups to reduce regional trips and congestion.	
TR-3	Work with AMBAG to implement the Metropolitan Transportation Plan/Sustainable Community Strategy (MTP/SCS) to reduce GHG emissions generated from transportation in the region.	

Transportation - Parking		
GHG Reduction Estimate: 100 - 1000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: High		
Number	Reduction Measure	Costs
TR-4	Consider implementing a "Park Once" campaign for Capitola Village which includes education, outreach, and signage, as appropriate.	Medium-High. Potentially significant City costs to provide additional parking, conduct education/outreach. Dedicated vanpool, EV vehicle parking would be a new requirement, but is not expected to be a substantial impact to applicants.
TR-5	Investigate and consider implementing additional parking strategies , including: developing a parking structure within walking distance of the Village, expansion of the in-lieu parking fee program, implementation of a parking management program, formation of a parking assessment district, and using "smart pricing" for metered parking spaces.	
TR-6	Require new major non-residential development to include designated or preferred parking for vanpools, carpools, and electric vehicles.	

Transportation - Transit		
GHG Reduction Estimate: 1000 - 10,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate		
Number	Reduction Measure	Costs
TR-7	Continue to work with county and regional transportation leaders to explore options for additional funding sources on regional level to support multi-modal transportation infrastructure	Low. Staff would continue to collaborate with regional partners to improve transportation options. No additional applicant costs anticipated.
TR-8	Support regional efforts to develop the Santa Cruz County Passenger Rail Project.	
TR-9	Advocate for transit that supports sustainable growth within the county.	
TR-10	Work with local and regional transportation partners to develop, fund, and implement transit options to create a convenient, integrated, and accessible transit system for within town, cross county, and Monterey Bay Area commutes.	
TR-11	Encourage the Metro Center to become a multi-modal facility with amenities and integration with a possible future shuttle system in Capitola.	

Transportation - Trip Reduction		
GHG Reduction Estimate: 1000 - 10,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
TR-12	Reduce within-town car trips by 10% by 2020 through the following measures:	
TR-12.1	Work with regional agencies to establish baseline values for vehicle trip makeup (origin/destination) for residents, businesses, and municipalities, and create baseline transportation numbers for in-town trips.	
TR-12.2	Continue to investigate and modify parking requirements and parking fees for new development.	
TR-12.3	Encourage the use of ridesharing and car sharing as an alternative to single occupancy driving through business and commuter incentives, such as participation in the Rideshare Week Program administered by SCCRTC & AMBAG, and parking disincentives.	
TR-12.4	Support sustainable transportation education programs.	
TR-12.5	Work with community groups to encourage pedestrian and bike events.	
TR-12.6	Investigate partnership with programs such as Zipcar to support use of energy efficient or electric vehicles for City residents.	Medium-High. Measures would collectively require City education/outreach efforts; studies and analyses, funding for incentives and disincentives, and possibly re-prioritizing CIP projects. Measures could reduce parking requirements for applicants, but could in-turn result in additional fees. Businesses participating in alternative transportation programs would incur costs to provide incentives and administer programs.
TR-12.7	Allow car-free weekends or special events within the Village if it reduces single occupancy vehicle driving and is financially feasible.	
TR-13	Reduce regional workforce single occupancy vehicle commutes 10% by 2020 through the following measures:	
TR-13.1	Work with local partners and regional transportation planning groups to support the use of the rail corridor as a supplemental regional commute option.	
TR-13.2	Support local and regional ride sharing programs.	
TR-13.3	Encourage local employers to develop tools and methods to decrease emissions from work commutes, including work at home, ride-sharing, and vanpools.	
TR-14	Develop a Transportation Demand Management Plan (TDM) for City and local employees. A TDM Program would offer incentives to encourage the use of alternative modes of transportation by City and local employees (e.g. in the Village, Bay Ave, and 41st Ave areas). Free bus passes, reimbursement for not using a parking space, emergency cab services, etc. will help reduce parking demand and reduce greenhouse gas emissions through reduced commuter traffic.	
TR-15	Continue to work with school districts and solicit input from elementary, middle, and high school parents to identify opportunities to decrease emissions from school commutes:	
TR-15.1	Support school busing, carpooling, biking, and walking options as alternatives to individual parent pick-up and drop-off.	
TR-15.2	Support development of more "safe routes to school" for students to walk and ride to school and home, and continue to explore additional funding for projects that enhance bike and walk to school opportunities.	

## Transportation - Bicycling and Walking

GHG Reduction Estimate: 100 - 1,000 MTCO<sub>2</sub>e

Cost Effectiveness Estimate: Moderate to High

Number	Reduction Measure	Costs
TR-16	Increase bike ridership in Capitola Through the following measures:	
TR-16.1	Provide periodic status reports on 2011 Bicycle Transportation Plan implementation to the City Council.	
TR-16.2	Complete a Quality Index assessment for Bicycle routes throughout the City and set targets to upgrade sections of key corridors to meet "Reasonable" or "Ideal" condition levels by 2020.	
TR-16.3	Continue to implement the proposed projects defined in the 2011 Bicycle Transportation Plan to close gaps in the bicycle networks and connect major destinations and activity centers by 2020.	
TR-16.4	Work with the County to design safe bike infrastructure across jurisdictional boundaries.	
TR-16.5	Install bike route signs including directions and mileage indicators to common destinations.	Medium-High. City resources will be required for education/outreach, to complete studies and analyses and develop programs, to fund sidewalk and bicycle infrastructure improvements, purchase and install signs. Re-prioritizing CIP program may also be necessary. Applicant costs would increase as a result of requirements for bike parking facilities, providing bikes and scooters, and TIF payments.
TR-16.6	Install high-quality bicycle-parking facilities in the Village in centralized, safe, and secure areas.	
TR-16.7	Require bicycle parking facilities and on-site showers in major non-residential development and redevelopment projects. Major development projects include buildings that would accommodate more than 50 employees, whether in a single business or multiple tenants; major redevelopment project include projects that change 50 percent or more of the square footage or wall space.	
TR-16.8	Encourage businesses to provide bikes, electric bikes, and scooters for employees for lunch time and work time errands.	
TR-16.9	Encourage and support non-profit or volunteer organizations in creating a bicycle-sharing program.	
TR-17	Evaluate opportunities for new residential subdivisions and major commercial redevelopment projects to include a pedestrian or bicycle through-connection in any new cul-de-sacs.	
TR-18	Promote the ability of all residents to safely walk and bicycle to public parks. Identify improvements needed to address any deficiencies and incorporate these improvements into the City's CIP.	
TR-19	Maintain an environment within the Village and Capitola Mall that prioritizes the safety and convenience of pedestrians and bicyclists.	
TR-20	Consider adopting a Transportation Impact Fee (TIF) Program to mitigate for transportation impacts resulting from development projects. Allocate portions of the TIF budget to bicycle and pedestrian facility projects.	

Transportation - Electric Vehicles		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
TR-21	Provide incentives, such as giving priority in plan review, processing, and field inspection services, for new and existing commercial and residential projects that provide parking spaces reserved for electric vehicles and have a charging connection.	Medium. City funding would be needed for incentives, administration, needs assessment, and to purchase/install charging stations. Applicants processing projects without EV infrastructure may experience processing delays.
TR-22	Continue to work with the Monterey Bay Electrical Vehicle Alliance and others to assess needs and develop future municipal and private charging infrastructure to increase public access to EV charging stations.	

STRATEGY - GREEN BUILDING AND ENERGY EFFICIENCY		
General		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
GB-1	Incorporate green building techniques into the City's commercial and residential design guidelines.	Medium. City resources needed for periodic code updates and to fund incentives. Applicants may incur additional upfront costs resulting from energy efficiency improvements, but will likely save on energy costs in long-term. Applicants processing other projects may be delayed due to priority projects being moved to "front of the line".
GB-2	Train all plan review and building inspection staff on green building materials, techniques, and practices.	
GB-3	Identify and remove regulatory or procedural barriers to implementing green building practices in the City by updating codes, guidelines, and zoning.	
GB-4	Periodically review, and as needed, update City development codes and regulations to promote innovative energy-efficient technologies.	
GB-5	Provide incentives, such as streamlined permitting and inspection processes or reduced permitting fees, for retail and hospitality establishments that utilize energy-efficient equipment.	

Green Building and Energy Efficiency - Green Building Ordinance		
GHG Reduction Estimate: 1,000 - 10,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: High		
Number	Reduction Measure	Costs
GB-6	Periodically review, and if needed, amend Capitola's Green Building Ordinance to ensure effectiveness of the regulations relative to Title 24 standards.	
GB-7	Revise the Green Building Ordinance as follows:	
GB-7.1	Provide an expedited entitlement process and/or waiver of select permit fees for exemplary projects that greatly exceed requirements and that are "LEED®-Ready.	
GB-7.2	Encourage passive solar design, in which window placement and building materials help to collect and maintain solar heat in the winter and reflect solar heat in the summer.	Medium. City resources needed to complete code updates and for monitoring/enforcement. City funds needed for incentives. Applicants would incur costs resulting from new requirements for energy efficiency, but will realize energy savings over the long-term. Priority processing of green projects may delay applicants with other projects.
GB-7.3	Require large homes over 3,000 square-feet provide greater efficiency than required of smaller homes to compensate for the increased energy requirements of larger homes.	
GB-7.4	Require new development and major renovations to use energy-efficient appliances that meet ENERGY STAR standards and energy-efficient lighting techniques that exceed Title 24 standards by 30%.	
GB-7.5	Require the installation of programmable thermostats in new buildings and as part of additions or renovations to existing buildings.	
GB-7.6	Require outdoor lighting fixtures in new development to be energy efficient. Require parking lot light fixtures and light fixtures on buildings to be on full cut-off fixtures, except emergency exit or safety lighting, and all permanently installed exterior lighting shall be controlled by either a photocell or an astronomical time switch. Prohibit continuous all night outdoor lighting in construction sites unless required for security reasons.	
GB-7.7	Provide incentives, such as rebates offered by the "Bright Lights" program, for multi-family housing buildings to retrofit inefficient lighting fixture with new, more efficient fixtures.	

Green Building and Energy Efficiency - Energy Efficient Site Design		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
GB-8	Amend the Zoning Code to require new development and major renovations to incorporate measures that reduce energy use through solar orientation by taking advantage of shade, prevailing winds, landscaping, and sunscreens.	Medium. City resources needed to amend ordinances. Applicants would incur additional costs to design and construct improvements.
GB-9	Incorporate requirements for cool roofs, cool pavements, and strategically placed shade trees into the Zoning Code and other appropriate City regulations.	
GB-10	Amend the Tree Protection Ordinance to allow passive solar design in new and existing development.	



Green Building and Energy Efficiency - Outreach		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
GB-11	Join regional partners in advocating for the continuation and expansion of utility provider incentive programs to improve energy efficiency, and advocating for sustainable practices by the providers themselves.	
GB-12	Encourage PG&E to develop and distribute energy use report cards for their residential customers in Capitola.	Low. Some City resources needed for coordination/promotion efforts. No affect on applicants anticipated.
GB-13	Partner with PG&E to promote individualized energy management planning and related services for large energy users.	
GB-14	Promote LEED-certified or similar projects by providing maps and/or coordinated tours of such facilities.	

Green Building and Energy Efficiency - Energy Efficiency Audits and Upgrades		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
GB-15	Partner with knowledgeable organizations to publicize the availability of grants, loans, and tax incentive options for various resource efficiency upgrades via the State or federal government, utility providers, and other sources. Work with Santa Cruz County and other regional government entities to ensure that Capitola is included in energy efficiency programs.	
GB-16	Consider participation in the CaliforniaFIRST program and other Property Assessed Clean Energy (PACE) financing programs, which provides innovative, low-interest financing for energy efficiency projects for commercial, industrial, and multi-family properties.	Medium. City resources needed for coordination, education, and outreach efforts. No impact to applicants provided programs are voluntary.
GB-17	Partner with Energy Upgrade California to increase participation by Capitola residents in energy efficiency home improvement projects.	
GB-18	Partner with Central Coast Energy Services to increase participation in energy efficiency retrofits for low-income housing in Capitola.	
GB-19	Provide outreach support for existing programs that provide energy efficiency retro-commissioning, audits, and retrofits for housing, including rental housing, businesses, non-profit organizations, and government, special district, and school district customers (e.g. PG&E, AMBAG, Central Coast Energy Services, Ecology Action, Energy Upgrade California).	
GB-20	Partner with realtors to promote energy efficiency audits and upgrades when residential and commercial buildings are sold.	

Green Building and Energy Efficiency - Municipal		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate		
Number	Reduction Measure	Costs
GB-21	Continue to make energy improvements to City facilities to maintain Capitola's certification from the Monterey Bay Green Business Program.	Medium-High. City resources required for audits, plan/design improvements. City funding needed to purchase/install improvements. No applicant impact anticipated.
GB-22	Ensure that all City development projects serve as models of energy-efficient building design.	
GB-23	Conduct periodic energy audits of City facilities and include any feasible energy cost reduction measures in the annual budget.	

STRATEGY - RENEWABLE ENERGY		
On-Site Energy Generation		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
RE-1	Amend the Zoning Code to remove regulatory barriers to the establishment of on-site energy generation.	Medium. City resources needed to update ordinances and to review energy analyses prepared for each project subject to requirements. Requirements would add design/construction costs to applicants.
RE-2	Amend the Zoning Code to require new or major rehabilitations of commercial, office, or industrial development incorporate solar or other renewable energy generation to provide 15% or more of the project's energy needs.	
RE-3	Amend the Green Building Ordinance to require all new buildings be constructed to allow for easy, cost-effective installation of future solar energy systems, where feasible. "Solar ready" features should include: proper solar orientation (i.e. south-facing roof area sloped at 20% to 55° from the horizontal); clear access on the south sloped roof (i.e. no chimneys, heating vents, or plumbing vents); electrical conduit installed for solar electric system wiring; plumbing installed for solar hot water systems; and space provided for a solar hot water storage tank.	
RE-4	Require residential projects of six units or more to participate in the California Energy Commission's New Solar Homes Partnership, which provides rebates to developers of six units or more who offer solar power in 50% of new units and is a component of the California Solar Initiative, or a similar program with solar power requirements equal to or greater than those of the California Energy Commission's New Solar Homes Partnership.	
RE-5	Amend the Zoning Code to promote solar and wind access in new and existing development.	
RE-6	Amend the Tree Protection Ordinance to allow removal of non-heritage trees necessary to provide solar access in new and existing development.	

Renewable Energy - Renewable Energy Development and Use		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate		
Number	Reduction Measure	Costs
RE-7	In partnership with PG&E and local alternative energy companies, develop an Alternative Energy Development Plan that includes citywide measurable goals and identifies the allowable and appropriate alternative energy facility types within the City, such as solar photovoltaics (PV) on urban residential and commercial roofs and low-scale wind power facilities. As part of this plan:	
RE-7.1	Propose phasing and timing of alternative energy facility and infrastructure development.	Medium. City resources, including consultant support, needed to complete alternative energy plan. Funding needed for incentives. No applicant impact anticipated.
RE-7.2	Conduct a review of City policies and ordinances and establish a streamlined development review process for new alternative energy projects that ensures noise, aesthetic, and other potential land use compatibility conflicts are avoided.	
RE-7.3	Develop a renewable energy expansion plan for the City.	
RE-7.4	Consider reducing permit fees or other incentives for alternative energy development.	
RE-8	Continue to support the County's investigation into implementation of Community Choice Aggregation, a program which the local government purchases power from selected local, renewable sources, and the local utility provider handles transmission and billing.	
RE-9	Provide incentives for electric car charging stations which use solar and other renewable energy generation.	

Renewable Energy - Municipal		
GHG Reduction Estimate: < 10 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate		
Number	Reduction Measure	Costs
RE-10	Complete a renewable energy feasibility study of City buildings and facilities.	Medium-High. City resources needed to complete study. Funding needed for consultant support. Study could produce additional action items. Requirements for solar systems on City facilities would require funding. No applicant impacts anticipated.
RE-11	Incorporate the use of solar panels and solar hot water heaters in future City facilities.	

## STRATEGY - WATER AND WASTEWATER

### Water Conservation - General

GHG Reduction Estimate: 100 - 1,000 MTCO<sub>2</sub>e

Cost Effectiveness Estimate: Moderate to High

Number	Reduction Measure	Costs
WW-1	Amend the Green Building Ordinance to require all water use and efficiency measures identified as voluntary in the California Green Building Standards Code for new development	
WW-2	Amend the Green Building Ordinance to promote water conservation through standards for watering timing, water-efficient irrigation equipment, water-efficient fixtures, and offsetting demand so that there is no net increase in imported water use. Include clear parameters for integrating water conservations infrastructure and technologies, including low-flush toilets and low-flow showerheads. As appropriate, partner with local water conservation companies on the development and implementation of this measure.	
WW-3	Develop a water efficiency retrofit ordinance to require water efficiency upgrades as a condition of issuing permits for renovations or additions. Work with local water purveyors to achieve consistent standards and review and approval procedures for implementation.	Medium. City resources needed for education/outreach and to amend ordinances and coordinate with water districts. Incentives will require funding. New requirements and programs will increase applicant costs.
WW-4	Continue to require water efficiency retrofits at point of sale for residential, commercial, and industrial properties.	
WW-5	Review and update the City's Water-Efficient Landscaping Ordinance with improved conservation programs and incentives for non-residential customers that are consistent with the Tier 1 water conservation standards of Title 24.	
WW-6	Implement incentives for the use of drought-tolerant landscaping and recycled water for landscape irrigation.	
WW-7	Collaborate with the Soquel Creek Water District and Santa Cruz Water Department to enact conservation programs for commercial, industrial, and institutional (CII) accounts.	
WW-8	Partner with Central Coast Energy Services to integrate low-flow toilet and showerhead replacement services into their low-income housing retrofit services, and promote these services to homeowners.	

### Water and Wastewater - Information and Outreach

GHG Reduction Estimate: 10 - 100 MTCO<sub>2</sub>e

Cost Effectiveness Estimate: Moderate

Number	Reduction Measure	Costs
WW-9	In collaboration with the Soquel Creek Water District and Santa Cruz Water Department, promote water audit programs that offer free water audits to residential and commercial customers.	Low. Some City resources needed for coordination, education, and outreach.
WW-10	Conduct marketing and outreach to promote water conservation rebates provided by the Soquel Creek Water District and Santa Cruz Water Department.	No applicant impacts anticipated.

Water and Wastewater - Alternative Water Systems		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
WW-11	Encourage grey water use and rainwater catchment systems where their use could accomplish water conservation objectives through the following measures:	
WW-11.1	Investigate the feasibility of adding new California grey water building/plumbing codes into the Green Building Ordinance.	
WW-11.2	Adopt a residential rainwater collection policy and update the Zoning Code as needed to support permitting and regulation of residential rainwater systems.	Medium. City resources needed for research, policy preparation, and education/outreach. New requirements could add costs to applicants.
WW-11.3	Investigate emerging technologies that reuse water within residential and commercial buildings and make that information available to the public via the City's website and/or brochures.	
WW-11.4	Pursue funding sources to provide rebates and reduce permit fees for cisterns.	
WW-11.5	Provide outreach support for water-efficient landscaping programs, classes, and businesses.	

Water and Wastewater - Municipal		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
WW-12	Establish an ultra-low water use policy for City buildings and operations, and provide mechanisms to achieve policy goals.	Medium. City resources needed to develop and implement policy. Costs associated with upgraded systems/equipment. No applicant impacts anticipated.
WW-13	Work with water service providers to develop and implement a reclaimed (recycled) water distribution system (purple pipe) for landscaping and other non-potable water uses for domestic, commercial, and industrial consumers.	

STRATEGY - SOLID WASTE		
Solid Waste Diversion - General		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
SW-1	Work with Green Waste Recovery to reduce community per capita solid waste disposal by 75% by 2020	Medium. City resources needed for coordination, to develop strategies and protocols, and potentially for long-term monitoring and enforcement. No applicant impacts anticipated.
SW-2	Conduct a study to consider providing financial incentives to households and businesses to reduce the volume of solid waste sent to the landfill. Based on the results of this study, undertake such incentives, as appropriate.	
SW-3	SW-3 Partner with PG&E to establish an end-of-life requirement for appliance disposal. Establish a protocol per US EPA's Responsible Appliance Disposal Program.	

Solid Waste - Construction Waste		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate to High		
Number	Reduction Measure	Costs
SW-4	SW-4 Revise the Recycling Ordinance to require at least 50 percent diversion of non-hazardous construction waste from disposal, as required by the California Green Building Code.	Low-Medium. City resources needed to amend ordinance. New or more strict standards could result in increased applicant costs.
SW-5	Amend the Green Building Ordinance to encourage building designs that minimize waste and consumption in construction projects.	

Solid Waste - Green and Food Waste		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate		
Number	Reduction Measure	Costs
SW-6	Continue the City's Food Waste Reduction Program and policies related to green waste diversion to keep food and green waste out of the landfill.	Low. No impacts anticipated from retaining existing program.

Solid Waste - Recycling		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
SW-7	Retain Zoning Code requirements for all new and significant redevelopments/remodels of existing multi-family developments, including those with fewer than five units, to provide recycling areas for their residents.	Low-Medium. City resources needed to complete ordinance amendment. Measures could result in additional costs to event applicants and increased construction costs for parking lot development.
SW-8	Work with Green Waste Recovery to improve recycling collection services in the Village and in commercial areas.	
SW-9	Amend the Municipal Code to require recycling at all public events that require a City permit.	
SW-10	Encourage the use of recycled asphalt pavement (RAP) for commercial and community parking lots.	

Solid Waste - Outreach		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
SW-11	Encourage the use of reusable, returnable, recyclable, and repairable goods through incentives, educational displays, and activities.	Low-Medium. City has several existing programs in place. Expanded programs would require City resources. No applicant impacts anticipated.
SW-12	Encourage the reduction of waste and consumption from household and business activities in Capitola through public outreach and education activities.	
SW-13	Support recycling and compost efforts at City schools by providing information and educational materials.	

Solid Waste - Municipal		
GHG Reduction Estimate: < 10 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Moderate		
Number	Reduction Measure	Costs
SW-14	Increase the City government waste diversion rate to 75% through the following measures:	Low-Medium. City has several existing programs in place. Additional resources needed if programs expanded and for IT improvements. No applicant impacts anticipated.
SW-14.1	Expand reduction, recycling, and composting programs.	
SW-14.2	Practice Reuse.	
SW-14.3	Conduct waste audits of municipal buildings.	
SW-14.4	Promote the purchase of environmentally-friendly office products.	
SW-14.5	Implement practices to reduce paper use in City operations.	
SW-14.6	Implement digital permitting and plan check procedures.	

STRATEGY - OPEN SPACE AND FOOD SYSTEMS		
Urban Agriculture		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
OS-1	Increase the number of community gardens through the following measures:	Medium. City resources needed for education/outreach and to develop and implement programs. Requirements to set aside space for food production could affect applicant's designs.
OS-1.1	Identify and inventory potential community garden and urban farm sites on parks, public easements, PG&E easements, and rights-of-way, and develop a program to establish community gardens in appropriate locations.	
OS-1.2	Encourage significant new residential developments over 50 units to include space that can be used to grow food.	
OS-1.3	Establish a process through which a neighborhood can propose and adopt a site as a community garden.	
OS-1.4	Work with schools to develop opportunities for creating additional community gardens on their campuses.	
OS-2	As part of the Zoning Ordinance Update, identify and address barriers to urban farming and produce sales directly from farmers to consumers.	

Open Space and Food Systems - Local Food		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
OS-3	Promote food grown locally in Capitola through marketing, outreach, and by providing locally grown and prepared food at City events, helping to reduce the transportation needs for food distribution while boosting the local economy.	Medium. City resources needed for coordination, education, and outreach. No applicant impacts anticipated.
OS-4	Encourage neighborhood grocery stores, farmers markets, and food assistance programs to increase their use of locally-grown and -prepared goods.	
OS-5	Encourage institutions, such as schools, government agencies, and businesses to serve foods produced locally and in the region.	

Open Space and Food Systems - Trees and Open Space		
GHG Reduction Estimate: 100 - 1,000 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: High		
Number	Reduction Measure	Costs
OS-6	Support community tree plantings and open space enhancements.	Medium. City resources needed to develop plans, manage urban forest projects, and to purchase, install, and maintain trees.
OS-7	Increase and enhance urban forests.	

STRATEGY - PURCHASING		
General		
GHG Reduction Estimate: 10 - 100 MTCO <sub>2</sub> e		
Cost Effectiveness Estimate: Low to Moderate		
Number	Reduction Measure	Costs
P-1	Review City purchasing and procurement policies and amend them as needed to do the following, and ensure adherence to these policies:	Medium. City resources needed to develop policy/ordinance and to coordinate with local food outlets.
P-1.1	Prioritize green business practices and local businesses.	
P-1.2	Require the use of locally-grown and -prepared foods at City events.	
P-1.3	Promote the use of reusable, returnable, recyclable, and repairable goods.	
P-1.4	Prioritize the purchase of ENERGY STAR-rated appliances and computer equipment as new purchases become necessary.	



## STRATEGY - COMMUNITY ACTION

### General

GHG Reduction Estimate: Cannot be Determined

Cost Effectiveness Estimate: Cannot be Determined

Number	Reduction Measure	Costs
CA-1	Participate fully in regional, State, and federal efforts to reduce GHG emissions and mitigate the impacts resulting from climate change.	Low. Some City resources needed for coordination and participation.

### Community Action - Green Business

GHG Reduction Estimate: Cannot be Determined

Cost Effectiveness Estimate: Cannot be Determined

Number	Reduction Measure	Costs
CA-2	Promote the Monterey Bay Area Green Business Program and publicize businesses in Capitola which have been certified. Over time, consider whether it will be advantageous to develop a program specific to Capitola. Consider whether to support the program via contributions to technical assistance and marketing.	Medium. City resources needed for promotion, education, and outreach. Program development and technical assistance would require additional staff time and funding. No applicant impacts anticipated.
CA-3	Establish a Green Village campaign to encourage participation of Village businesses and property owners in resource efficiency programs. Recognize these businesses on the City's website and other outlets.	
CA-4	Support the Buy Local campaign as a GHG reduction tool.	

### Community Action - Education and Outreach

GHG Reduction Estimate: Cannot be Determined

Cost Effectiveness Estimate: Cannot be Determined

Number	Reduction Measure	Costs
CA-5	Support ongoing public efforts to increase climate change awareness, action, and advocacy.	
CA-6	Support the coordination and promotion of films, events, speakers, and forums related to climate change.	Medium. City resources needed to conduct education/outreach, to develop local events, and to expand programs. No applicant impacts anticipated.
CA-7	Expand City and partner programs that enhance education regarding energy efficiency, resource conservation, and climate change programs and policies.	
CA-8	Explore opportunities to engage high school students in reducing their personal GHG emissions as well as becoming leaders in communitywide GHG reductions.	

Community Action - Municipal		
GHG Reduction Estimate: Cannot be Determined		
Cost Effectiveness Estimate: Cannot be Determined		
Number	Reduction Measure	Costs
CA-9	Coordinate implementation and completion of the Climate Action Plan by 2020.	
CA-10	Conduct periodic reviews and revisions of the Climate Action Plan.	
CA-11	Conduct GHG emissions inventories at least every five years, in partnership with regional municipalities, AMBAG, and PG&E.	
CA-12	Advocate for effective State and federal policies and lead by example through reporting of local reduction success.	Medium-High. City resources needed to complete CAP updates, including consultant support and ongoing inter-city coordination. Maintaining City's certification may require additional, unknown investments. No direct applicant impacts anticipated.
CA-13	Establish a process for reporting on GHG emissions within appropriate Council reports to evaluate and analyze how actions support or are consistent with the City's GHG reduction goals.	
CA-14	Integrate City departments' operational implementation of the Climate Action Plan through coordination with staff of all relevant City programs and by establishing a Climate Action Coordinator position.	
CA-15	Quantify and report on the effectiveness of the implementation of the Climate Action Plan and make the information available to City Council, all City departments, partners, and the public.	
CA-16	Partner with regional municipalities to establish funding to support GHG reduction efforts.	
CA-17	Create suggestion e-box for City staff energy efficiency and resource conservation ideas.	