



General Plan Update Draft EIR

for the **City of Capitola** State Clearinghouse No. 2013072002

December 19, 2013

The Planning Center | DC&E

in collaboration with:

RBF Consulting



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Prepared by:

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Orange County • Northern California • Los Angeles/Downtown • Los Angeles/West • Inland Empire • San Diego

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1. Executive Summary

This Draft Environmental Impact Report (Draft EIR) addresses the environmental effects associated with the implementation of the proposed Capitola General Plan (proposed Plan). The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a public document designed to provide the public and local and State governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making.

This Draft EIR has been prepared pursuant to the requirements of CEQA (California Public Resources Code, Division 13, Section 21000, *et seq.*) and the State CEQA Guidelines (Title 14 of the California Code of Regulations, Division 6, Chapter 3, Section 15000, *et seq.*) to determine if approval of the identified discretionary actions and related subsequent development could have a significant impact on the environment. The City of Capitola, as the Lead Agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment. Information for this Draft EIR was obtained from on-site field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature in the public domain; and specialized environmental assessments (e.g., air quality, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic).

1.1 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed Plan, as well as anticipated future discretionary actions and approvals. The six main objectives of this document, as established by CEQA, are:

- To disclose to decision-makers and the public the significant environmental effects of proposed activities.
- To identify ways to avoid or reduce environmental damage.
- To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
- To disclose to the public reasons for agency approval of projects with significant environmental effects.
- To foster interagency coordination in the review of projects.
- To enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in the CEQA statutes and CEQA Guidelines. It provides the information needed to assess the environmental consequences of a proposed plan, to the extent feasible. An EIR is intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts. An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a

proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

1.1.1 EIR ORGANIZATION

This EIR is organized into the following chapters:

- Section 1. Executive Summary: Summarizes the background and description of the proposed Plan, the format of this EIR, alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the Plan. A Summary Table describing recommended mitigation measures and indicates the level of significance of environmental impacts before and after mitigation is also included for clarity.
- Section 2. Introduction: Provides a preface and overview describing both the intended use of the document and the review and certification process of both the proposed Plan and the EIR.
- Section 3. Project Description: Describes the proposed Plan in detail, including a summary of the proposed Plan's Elements and a listing of proposed land use designation changes.
- Section 4. Environmental Assessment: Organized into 15 chapters corresponding to the environmental resource categories identified in Appendix G of the CEQA Guidelines, this section provides a description of the physical environmental conditions in the vicinity of the project as they existed at the time the Notice of Preparation was published, from both a local and regional perspective, as well as an analysis of the potential environmental impacts of the proposed Plan and recommended mitigation measures, if required, to reduce their significance. The environmental setting included in each chapter provides baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed Plan. Each chapter also includes a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the Plan; and the potential cumulative impacts associated with the proposed Plan and other existing, approved, and proposed development in the area.
- Section 5. Significant Unavoidable Adverse Impacts: Describes the impacts of the proposed Plan that are found to be significant and unavoidable in this Draft EIR.
- Section 6. Alternatives to the Proposed Plan: Considers two alternatives to the proposed Plan, including the CEQA-required "No Project Alternative" and the Reduced Commercial Floor Area Ratio (FAR) Alternative.
- Section 7. CEQA-Mandated Sections: Discusses growth inducement, cumulative impacts, unavoidable significant effects, and significant irreversible changes as a result of the proposed Plan. Additionally, this section identifies environmental issues scoped out pursuant to CEQA Guidelines Section 15128.

- Section 8. Organizations and Persons Consulted: Lists the people and organizations that were contacted during the preparation of this EIR for the proposed Plan.
- Appendices: The appendices for this document (presented in PDF format on a CD attached to the back cover) contain the following supporting documents:
 - Appendix A: Notice of Preparation
 - Appendix B: Air Quality
 - Appendix C: Noise Monitoring and Modeling Data
 - Appendix D: Traffic
 - Appendix E: GHG AMBAG Inventory

1.1.2 TYPE AND PURPOSE OF THIS DRAFT EIR

According to Section 15121(a) of the CEQA Guidelines, the purpose of an EIR is to:

Inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

Given the long-term horizon of the proposed Plan and the permitting, planning, and development actions that are related both geographically and as logical parts in the chain of contemplated actions for implementation, this Draft EIR has been prepared as a Program EIR for the proposed Plan, pursuant to Section 15168 of the CEQA Guidelines. As a Program EIR, it is not project-specific, and does not evaluate the impacts of specific projects that may be proposed under the Plan. Such subsequent projects will require a separate environmental review to secure the necessary development permits. While subsequent environmental review may be tiered off this EIR, this EIR is not intended to address impacts of individual projects.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether additional CEQA documentation needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documents may not be required (CEQA Guidelines Section 15168[c]). When a Program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects not within the scope of the Program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis.

1.2 PROJECT LOCATION

Capitola is a coastal community located along the Monterey Bay. The City of Capitola is centrally located in Santa Cruz County, east of the City of Santa Cruz. Highway 1 runs east-west along the northern border of the city.

Highway 17 is located northwest of Capitola and connects the coastal communities to Silicon Valley and San Francisco Bay Area to the north. A more detailed description and map of Capitola's location is provided in Section 3, Project Description

1.3 PLAN SUMMARY

The proposed Plan replaces the City's existing General Plan, which was adopted in 1989. The proposed Plan is intended to guide development and conservation in the city through 2035. The City's Housing Element was last updated in 2010 and has already undergone separate environmental review as part of its adoption process. Therefore, the Housing Element is not analyzed as part of this EIR.

The organization of the existing General Plan has been slightly revised in the proposed Plan. Some elements have been reorganized, and the proposed Plan adds an optional element not included in the existing General Plan. The proposed Plan contains five elements addressing the State-mandated topics of land use, circulation, housing, open space, conservation, safety, and noise, supplemented with the optional economic development element. Whereas the City's Local Coastal Program is integrated into the existing General Plan, under the proposed Plan the two documents are separate.

The proposed Plan revises the land use designations of the existing General Plan. The number of residential land use designations has been consolidated in the proposed Plan from four to two designations, the number of commercial land use designations has been reduced from four to three, two new mixed-use designations have been added, and the multiple community facilities designations in the existing General Plan have been consolidated into a single Public/Quasi-Public designation.

As described in detail in Section 3, Project Description, it is estimated that under the proposed Plan the population of Capitola will grow by 280 persons, with 80 new housing units. It is expected that 1,200 additional jobs will exist in Capitola by 2035. The proposed Plan has a long-term planning horizon, addressing a time frame extending to 2035.

1.4 SUMMARY OF ALTERNATIVES TO THE PROPOSED PLAN

The CEQA Guidelines (Section 15126[a]) require the description and comparative analysis of a range of alternatives to the proposed Plan that could feasibly attain the objectives of the Plan, while avoiding or substantially lessening potential impacts, including the CEQA-required "No Project Alternative." As described in Chapter 6 of this Draft EIR, two alternatives were identified and analyzed for relative impacts as compared to the proposed Plan:

- No Project Alternative
- Reduced Commercial FAR Alternative

One of the major land use changes in the proposed Plan is the increase in the maximum allowable development that would be permitted in the 41st Avenue Corridor and Capitola Village. The Reduced Commercial FAR

Alternative was chosen to provide an analysis of a scenario in which less non-residential development would be permitted in these areas.

Please refer to Chapter 6 of this Draft EIR for a complete discussion of the relative impacts associated with each alternative. The following presents a summary of each of the alternatives analyzed in the Draft EIR.

- No Project Alternative. Under this alternative, the Capitola General Plan would not be adopted and future development in Capitola would occur under the goals, policies, programs, and land use designations set forth in the existing 1989 General Plan. The maximum allowable commercial FAR would not increase in the 41st Avenue Corridor and Capitola Village. Additionally, the allowable residential densities would be the same as under the proposed Plan, although the proposed consolidation of General Plan land use designations would not occur. The No Project Alternative is estimated to result in as many as 80 new housing units, 280 residents, and approximately 410 new jobs in Capitola by 2035.
- Reduced Commercial Floor Area Ratio (FAR) Alternative. Under the Reduced Commercial FAR Alternative, the maximum allowable commercial FAR in the 41st Avenue Corridor and Capitola Village would be increased to 1.0 FAR to allow slightly more commercial development than what is currently permitted by the 1989 General Plan. As under the proposed Plan, the Regional Commercial and Community Commercial land use designations would apply in the 41st Avenue Corridor and the Village Mixed Use designation would apply in Capitola Village. The consolidation of land use designations proposed in the Plan, including residential land use categories, would also apply under this alternative and the Goals, Policies, and Actions contained in proposed Plan would also be adopted under this alternative. The Reduced Commercial FAR Alternative is estimated to result in as many as 80 new housing units, 280 new residents, and approximately 760 new jobs in Capitola by 2035.

1.5 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed Plan, the major issues to be resolved include decisions by the City of Capitola, as lead agency, related to:

- Whether this Draft EIR adequately describes the environmental impacts of the proposed Plan.
- Whether the benefits of the Plan override those environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance.
- Whether the proposed land use changes are compatible with the character of the existing area.
- Whether the identified goals, policies, or mitigation measures should be adopted or modified.
- Whether there are other mitigation measures that should be applied to the Plan besides those Mitigation Measures identified in the Draft EIR.
- Whether there are any alternatives to the Plan that would substantially lessen any of the significant impacts of the proposed Plan and achieve most of the basic objectives.

1.6 AREAS OF CONTROVERSY

The City of Capitola issued a Notice of Preparation of an EIR on July 1, 2013 and held a scoping meeting on July 23, 2013. The scoping period for this EIR ran from July 1 through July 30, 2013, during which time responsible agencies and interested members of the public were invited to submit comments as to the scope and content of the EIR. The comments received addressed the following issues:

- Flood Hazards
- Water Supply
- Development in Capitola Village
- Biological Resources
- Traffic

The Notice of Preparation and comments received are included in Appendix A of this Draft EIR. To the extent that these issues have environmental impacts and to the extent that analysis is required under CEQA, they are addressed in Sections 4 through 7 of this Draft EIR.

1.7 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Table 1-1 summarizes the conclusions of the environmental analysis contained in this Draft EIR and presents a summary of impacts and mitigation measures identified. It is organized to correspond with the environmental issues discussed in Section 4, Chapters 4.1 through 4.15. The table is arranged in four columns: 1) environmental impacts; 2) significance prior to mitigation; 3) mitigation measures; and 4) significance after mitigation. For a complete description of potential impacts, please refer to the specific discussions in Chapter 4.1 through 4.15.

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AESTHETICS			
AES-1: The proposed Plan would not have a substantial adverse effect on a scenic vista.	LTS	N/A	
AES-2: The proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway.	No Impact	N/A	
AES-3: The proposed Plan would not result in substantial degradation of the existing visual character or quality of Capitola or its surroundings.	LTS	N/A	
AES-4: The proposed Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LTS	N/A	
AES-5: The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to aesthetics.	LTS	N/A	
AIR QUALITY			
AIR-1: Citywide construction activities under the proposed Plan would result in a considerable increase of criteria pollutants, and thus, could violate air quality standards.	S	AIR-1a: Prior to issuance of any Grading Permit, the Community Development Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with MBUAPCD CEQA Air Quality Guidelines, the City shall limit areas of active disturbance to no more than 2.2 acres per day for initial site preparation activities that involve extensive earth moving activities (grubbing, excavation, rough grading), or 8.1 acres per day for activities that involve minimal earth moving (e.g., finish grading) during all phases of construction activities. If future development projects within the proposed Plan require that grading and excavation exceed those acreages, the City shall implement the following fugitive dust control measures per MBUAPCD CEQA Air Quality Guidelines:	LTS

Impact	Significance Before Mitigation		Mitigation Measures	Significance With Mitigation
			Water all active construction areas at least twice daily;	
			Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard;	
		•	Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;	
			Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;	
		•	Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;	
		•	Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);	
		•	Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.);	
		•	Limit traffic speeds on unpaved roads to 15 mph;	
		•	Install appropriate best management practices or other erosion control measures to prevent silt runoff to public roadways;	
		•	Replant vegetation in disturbed areas as quickly as possible;	
		•	Install wheel washers or track-out devices for all exiting trucks and equipment leaving the site;	
			Limit the area subject to excavation, grading and other construction activity at any one time;	
		•	Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints (the person shall respond to complaints and take corrective action within 48 hours);	
		-	Ensure that the phone number of MBUAPCD is visible to the public for compliance with Rule 402 (Nuisance); and	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		 Comply with MBUAPCD Rule 403 (Particulate Matter) regarding concentration, process weight and individual particles requirements. Discharge from any source of particulate matter shall not exceed of 0.15 grain per standard dry cubic foot of exhaust gas. Discharge in any one hour from any source of particulate matter shall not exceed the amount shown in Rule 403 – Particulate Matter Table 1. Additionally, emissions from any heat transfer, incinerator, or metal salvage operation of particles in sufficient number to cause damage to property, which particles are of sufficient size and nature to be visible individually as particles on property other than that under the control of the person responsible for the emission, shall not be permitted. 	
		AIR-1b: Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that all off-road construction vehicles/equipment greater than 100 horsepower that will be used on site for more than one week shall: 1) be manufactured during or after 1996, and 2) shall meet the NO _x emissions standard of 6.9 grams per brake-horsepower hour. Alternatively, the project shall implement a combination of the following emission reduction measures on some or all of the above described vehicles and equipment:	
		 Use alternative fuels (such as biodiesel blends); Require diesel particulate matter filters on equipment; Require diesel oxidation catalyst on equipment; Require General and Industry-Specific Visible Emission limitations 	
	,	 for abrasive blasting, drinking water systems, gas turbines, pile drivers and federally regulated industries for compliance with Rule 400 (Visible Emissions); Install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors); 	

Impost	Significance Before Mitigation	Mitigation Massures	Significance With
Impact	Mitigation	 Enforce state required idle restrictions (e.g., post signs). Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks may keep their engines running continuously as long as they were onsite and staged away from residential areas; 	Miligation
		 Properly tune and maintain equipment; and Stage large diesel-powered equipment at least 100 feet from any active land uses (e.g., residences). 	
AIR-2: Implementation of the proposed Plan could result in an overall increase in mobile and stationary source emissions within the City, which could exceed Monterey Bay Unified Air Pollution Control District air quality standards.	S	AIR-2: There is no mitigation measure available to reduce this impact to a less-than-significant level.	SU
AIR-3: Implementation of the proposed Plan could result in an overall increase in odors within the City.	LTS	N/A	
AIR-4: Implementation of the Capitola General Plan could result in an overall increase in localized and carbon monoxide hotspot emissions within the city, which could exceed Monterey Bay Unified Air Pollution Control District air quality standards.	LTS	N/A	
AIR-5: The proposed Plan may conflict with or hinder implementation of the Association of Monterey Bay Area Government's regional comprehensive plan guidelines and the Monterey Bay Unified Air Pollution Control District Air Quality Management Plan.	LTS	N/A	
AIR-6: Regional air quality emissions resulting from operational buildout of the Capitola General Plan could impact regional air quality levels on a cumulatively considerable basis.	SU	AIR-6: Implementation of the proposed Plan could generate regional air quality emissions resulting from operational buildout of the proposed Plan and could impact regional operational air quality levels on a cumulatively considerable basis; therefore impacts in this regard would be considered significant and unavoidable. There is no mitigation measure available to reduce this impact to a less-than-significant level.	SU

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIOLOGICAL RESOURCES			
BIO-1: The proposed Plan would not result in significant impacts to special-status plant and animal species in the Plan Area.	LTS	N/A	
BIO-2: The proposed Plan would not result in significant impacts to riparian habitat or other sensitive natural community.	LTS	N/A	
BIO-3: The proposed Plan would not result in significant impacts to federally protected wetlands.	LTS	N/A	
BIO-4: The proposed Plan would not 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.	LTS	N/A	
BIO-5: The proposed Plan would not conflict with Capitola's Community Tree and Forest Management Ordinance.	LTS	N/A	
BIO-6: The proposed Plan would not conflict with the Monterey Bay National Marine Sanctuary Management Plan.	LTS	N/A	
CULTURAL RESOURCES			
CULT-1: The Plan would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.	LTS	N/A	
CULT-2: Construction activities associated with implementation of the proposed Plan could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	S	CULT-2: If cultural resources or human remains are accidentally discovered during construction, work shall be halted within 50 meters (150 feet) of the find until it can be evaluated by a qualified professional archaeologist and/or paleontologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented. Disturbance shall not resume until the significance of the cultural resource is determined and appropriate mitigations to preserve	LTS

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		the resource on the site are established. If human remains are encountered during construction or any other phase of development, work in the area of discovery must be halted, the Santa Cruz County coroner notified, and the provisions of Public Resources Code 5097.98- 99, Health and Safety Code 7050.5, carried out. If the remains are determined to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours as required by Public Resources Code 5097.	
CULT-3: Construction activities associated with implementation of the proposed Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	S	CULT-3: Refer to Mitigation Measure CULT-2.	LTS
CULT-4: Construction activities associated with implementation of the proposed Plan could disturb human remains, including those interred outside of formal cemeteries.	S	CULT-4: Refer to Mitigation Measure CULT-2.	LTS
CULT-5: The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less-than- significant cumulative impacts with respect to cultural resources.	LTS	N/A	
GEOLOGY, SOILS, AND SEISMICITY			
GEO-1: The proposed Plan would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving surface rupture along a known active fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.	LTS	N/A	
GEO-2: Implementation of the proposed Plan would not result in substantial soil erosion or the loss of topsoil.	LTS	N/A	

	Significance Before		Significance With
Impact	Mitigation	Mitigation Measures	Mitigation
GEU-3: Development under the proposed Plan would not result in a significant impact related to development on	LIS	N/A	
unstable geologic units and soils or result in on- or off-site			
landslide, lateral spreading, subsidence, liquefaction, or			
collapse.			
GEO-4: Development under the proposed Plan would not	LTS	N/A	
create substantial risks to life or property as a result of its			
location on expansive soil.			
GEO-5: Development under the proposed Plan would not	LTS	N/A	
result in impacts associated with the use of septic tanks or			
alternative waste water uisposal of wastewater			
GEQ6: The proposed Plan, in combination with past	271	Ν/Δ	
present, and reasonably foreseeable projects, would not	LIG	1.17	
result in significant cumulative impacts with respect to			
geology and soils.			
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1: The proposed Plan would not create a significant	LTS	N/A	
hazard to the public or the environment through the routine			
transport, use, or disposal of hazardous materials.			
HAZ-2: The proposed Plan would not create a significant	LTS	N/A	
hazard to the public or the environment through reasonably			
release of hazardous materials into the environment			
HA7.3: The proposed Plan would not result in significant	271	Ν/Δ	
impacts associated with hazardous emissions or handling of	LIJ	N/A	
hazardous or acutely hazardous materials, substances, or			
waste within ¼-mile of an existing or proposed school.			
HAZ-4: Implementation of the Plan would not create a	LTS	N/A	
significant hazard to the public or the environment as a result			

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
of development on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.		<u> </u>	<u> </u>
HAZ-5: Implementation of the proposed Plan would not result in a safety hazard for people residing or working in the area due to development within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.	No Impact	N/A	
HAZ-6: Implementation of the proposed Plan would not result in a safety hazard for people residing or working in the Plan Area due to development in the vicinity of a private airstrip.	No Impact	N/A	
HAZ-7: The proposed Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	N/A	
HAZ-8: Implementation of the proposed Plan would not 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.	LTS	N/A	
HAZ-9: The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to hazards and hazardous materials.	LTS	N/A	
HYDROLOGY AND WATER QUALITY			
HYDRO-1: The proposed Plan would not violate any water quality standards or waste discharge requirements.	LTS	N/A	
HYDRO-2: The proposed Plan could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit	S	HYDRO-2: There is no mitigation measure available to mitigate this impact to a less-than-significant level.	SU

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
in aquifer volume or a lowering of the local groundwater	gatteri		
table level.			
HYDRO-3: The proposed Plan would not substantially alter the existing drainage pattern of the Plan Area or vicinity, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site.	LTS	N/A	
HYDRO-4: The proposed Plan would not create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	LTS	N/A	
HYDRO-5: The proposed Plan would not otherwise substantially degrade water quality.	LTS	N/A	
HYDRO-6: The proposed Plan would not result in a significant impact with respect to the placement of housing or structures, which would impede or redirect flood flows 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.	LTS	N/A	
HYDRO-7: The proposed Plan 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.	No Impact	N/A	
HYDRO-8: The proposed Plan would not result in significant adverse effects related to inundation by seiche, tsunami, or mudflow.	LTS	N/A	
HYDRO-9: The proposed Plan, in combination with past, present, and reasonably foreseeable development, could result in significant cumulative impacts with respect to hydrology and water quality.	S	HYDRO-9: There is no mitigation measure available to mitigate this impact to a less-than-significant level.	SU

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
LAND USE AND PLANNING			
LAND-1: The proposed Plan would not physically divide an established community.	LTS	N/A	
LAND-2: The proposed Plan would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	N/A	
LAND-3: The proposed Plan would not conflict with the Monterey Bay National Marine Sanctuary Management Plan.	LTS	N/A	
LAND-4: The proposed Plan, in combination with past, present, and reasonably foreseeable development in the surrounding area, would result in less-than-significant- cumulative impacts with respect to land use and planning.	LTS	N/A	
NOISE			
NOISE-1: Construction-related activities resulting from implementation of the proposed Plan would not result in the generation of noise levels in excess of established standards.	LTS	N/A	
NOISE-2: Construction-related activities resulting from implementation of the propose Plan could generate or expose persons or structures to excessive ground-borne vibration.	S	NOISE-2a: Project applicants shall ensure by contract specifications that construction staging areas along with the operation of earthmoving equipment within the City would be located as far away from vibration and noise sensitive sites as possible. For projects that involve the displacement of more than 100 cubic yards of soil and is located within 25 feet of an occupied structure, the Community Development Director or the Public Works Director may require at their discretion that a project specific vibration impact analysis be conducted to determine the specific vibration control mechanisms that would be incorporated into the project's construction bid documents, if necessary. Contract specifications shall be included in construction documents, which shall be reviewed by the City prior to issuance of a grading permit.	LTS

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		NOISE-2b: The City shall require future developments to implement the following measures to reduce the potential for human annoyance and architectural/structural damage resulting from elevated groundborne noise and vibration levels.	
		 Pile driving within a 50-foot radius of historic structures (as determined by the City) shall utilize alternative installation methods where possible (e.g., pile cushioning, jetting, predrilling, cast-in- place systems, resonance-free vibratory pile drivers). 	
		The pre-existing condition of all designated historic buildings (as determined by the City) within a 50-foot radius of proposed construction activities shall be evaluated during a preconstruction survey, if deemed necessary at the discretion of the Community Development Director or the Public Works Director. The preconstruction survey shall document conditions (photographically and in writing) that exist before construction begins for use in evaluating damage caused by construction activities. All damage shall be repaired back to its preexisting condition.	
		Vibration monitoring shall be conducted prior to and during pile driving operations occurring within 100 feet of historic structures (as determined by the City). Every attempt shall be made to limit construction-generated vibration levels during pile driving and impact activities in the vicinity of the historic structures.	
NOISE-3: Future noise levels associated with implementation of the proposed Plan could contribute to an exceedance of the City's noise standards resulting in potential noise impacts to sensitive receptors.	LTS	N/A	
NOISE-4: The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less-than- significant cumulative impacts with respect to noise.	LTS	N/A	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
POPULATION AND HOUSING			
POP-1: The Plan would not induce substantial unexpected population growth, or growth for which inadequate planning has occurred, either directly or indirectly.	LTS	N/A	
POP-2: The Plan would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.	LTS	N/A	
POP-3: The proposed Plan would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	LTS	N/A	
POP-4: The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to population and housing.	LTS	N/A	
PUBLIC SERVICES			
SVCS-1: The proposed Plan would not result in the provision of or need for new or physically altered protection facilities, the construction or operation of which could cause significant environmental impacts.	LTS	N/A	
SVCS-2: The proposed Plan, in combination with past, present, and reasonably foreseeable development would result in less than significant cumulative impacts with respect to fire protection service.	LTS	N/A	
SVCS-3: The proposed Plan would not result in the need for construction or expansion of police facilities.	LTS	N/A	
SVCS-4: The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less than significant cumulative impacts with respect to law enforcement services.	LTS	N/A	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
SVCS-5: The proposed Plan would not result in the provision of or need for new or physically altered school facilities, the construction or operation of which could cause significant environmental impacts.	LTS	N/A	
SVCS-6: The proposed Plan, in combination with past, present, and reasonably foreseeable growth in the SUESD service area, would result in less than significant cumulative impacts with respect to schools.	LTS	N/A	
SVCS-7: The proposed Plan would not result in the provision of or need for new or physically altered library facilities.	LTS	N/A	
SVCS-8: The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to libraries.	LTS	N/A	
PARKS AND RECREATION			
PS-1: The proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities in order to maintain an acceptable ratio of parkland per thousand residents.	LTS	N/A	
PS-2: The proposed Plan would not 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.	LTS	N/A	
PS-3: The proposed Plan would not include or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	LTS	N/A	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
PS-4: The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less than significant cumulative impacts with respect to parks and recreational facilities.	LTS	N/A	
TRANSPORTATION AND TRAFFIC			
TRANS-1: Implementation of the proposed Plan would cause intersection operations to degrade to unacceptable LOS E at the Porter Street and Highway 1 northbound ramps intersection during the AM peak hour in 2035.	S	TRANS-1: To mitigate this impact, an additional westbound right turn lane would be required to be constructed on the Highway 1 northbound off-ramp at Porter Street. With implementation of this improvement, the intersection would operate at an acceptable LOS C during the AM and PM peak hour under proposed Plan in conditions in 2035. The improvements necessary to mitigate this impact to a less than significant level would require the approval of Caltrans, and implementation of the improvement may not be feasible. As there are no certain and feasible mitigation measures are available to reduce this impact, a <i>significant and unavoidable impact</i> would remain.	SU
TRANS-2: The proposed Plan would not result in a change in air traffic patterns including either an increase in traffic levels of a change in locations that results in substantial safety risks.	LTS	N/A	
TRANS-3: The proposed Plan would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LTS	N/A	
TRANS-4: Implementation of the proposed Plan would not result in inadequate emergency access.	LTS	N/A	
TRANS-5: Implementation of the proposed Plan would not conflict with adopted policies, plans, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	LTS	N/A	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRANS-6: Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable project, would result in additional cumulatively considerable impacts.	S	TRANS-6: Implement Mitigation Measure TRANS-1.	SU
UTILITIES AND SERVICE SYSTEMS			
Water			
UTIL-1: Buildout of the proposed Plan may result in insufficient water supplies from existing entitlements and resources in 2035.	S	UTIL-1: There is no mitigation measure available to reduce this impact to a less-than-significant level.	SU
UTIL-2: The proposed Plan would require the construction of new water facilities or expansion of existing facilities, the construction of which may cause significant environmental effects.	S	UTIL-2: There is no mitigation measure available to reduce this impact to a less-than-significant level.	SU
UTIL-3: The Plan, in combination with past, present, and reasonably foreseeable development, may result in significant cumulative impacts with respect to water supply.	S	UTIL-3: There is no mitigation measure available to reduce this impact to a less-than-significant level.	SU
Sanitary Wastewater (Sewer)			
UTIL-4: The proposed Plan would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).	LTS	N/A	
UTIL-5: The proposed Plan would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	N/A	
UTIL-6: The proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in	LTS	N/A	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
addition to the provider's existing commitments.			
UTIL-7: The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to wastewater.	LTS	N/A	
Stormwater Drainage			
UTIL-8: The proposed Plan would not 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.	LTS	N/A	
UTIL-9: The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to stormwater facilities.	LTS	N/A	
Solid Waste			
UTIL-10: The proposed Plan would be served by a landfill with sufficient permitted capacity to accommodate the Plan's solid waste disposal needs.	LTS	N/A	
UTIL-11: The proposed Plan would comply with federal, State, and local statutes and regulations related to solid waste.	LTS	N/A	
UTIL-12: The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to solid waste.	LTS	N/A	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
GREENHOUSE GAS EMISSIONS			
GHG-1: GHG emissions associated with the proposed Plan would exceed MBAUAPCD's proposed GHG significance threshold of 2,000 MTCO ₂ e per year.	S	GHG-1: The City of Capitola shall prepare a Climate Action Plan within 18 months of adopting the proposed Capitola General Plan update. The Climate Action Plan shall include a community inventory of GHG emission sources, and a quantifiable GHG emissions reduction target for 2020 that is consistent with the statewide GHG reduction target under Assembly Bill 32 (2006) and an interim target for the General Plan horizon year 2035 that is consistent with the statewide GHG reduction goal under Executive Order S-03-05, as outlined in CARB's 2013 Scoping Plan Update. The City shall monitor progress toward the GHG emissions reduction goal and prepare reports every 5 years detailing that progress. Measures listed below shall be considered for all new development between the time of adoption of the proposed Capitola General Plan update and adoption of the Climate Action Plan. Local measures considered in the Climate Action Plan may include:	SU
		 Require all municipal fleet purchases to be fuel-efficient vehicles for their intended use based on the fuel type, design, size, and cost efficiency. 	
		 Work with AMBAG to create a Metropolitan Transportation Plan/Sustainable Community Strategy (MTP/SCS) that will reduce GHG emissions generated from transportation in the region. 	
		 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. 	
		 Amend the Green Building Ordinance to encourage building designs that minimize waste and consumption in construction projects. 	
		 Require new development and major renovations to use energy- efficient appliances that meet ENERGY STAR standards and energy-efficient lighting technologies that exceed Title 24 standards by 30 percent. 	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		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.	lintigation
		Implement incentives for the use of drought-tolerant landscaping and recycled water for landscape irrigation.	
		Require all new landscaping irrigation systems installed in the city to be automated, high-efficient irrigation systems to reduce water use and require use of bubbler irrigation; low-angle, low-flow spray heads; or moisture sensors.	
		Conduct periodic energy efficiency audits of existing municipal buildings by checking, repairing, and readjusting heating, ventilation, and air conditioning systems; lighting; water heating equipment; insulation; and weatherization.	
		Continue to implement intelligent transportation systems, roundabouts, signal timing and synchronization, and other efficiency methods that decrease idling time and congestion.	
		Investigate partnership with programs such as Zipcar to support use of energy efficient or electric vehicles for city residents.	
		Continue to work with county and regional transportation leaders to explore options for additional funding sources on the regional level to support multi-modal transportation infrastructure.	
		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 Avenue, and 41 st Avenue areas). Free bus passes, reimbursement for not using a parking space, emergency cab services, etc. will help reduce parking demand and reduce GHG emissions through reduced commuter traffic.	

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		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.	
		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 projects include projects that change 50 percent or more of the square footage or wall space.	
		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.	
		Encourage grey water use and rainwater catchment systems where their use could accomplish water conservation objectives through the following measures:	
		 Integrate new California grey water building/plumbing codes into the Green Building Ordinance. 	
		 Adopt a residential rainwater collection policy and update the Zoning Code as needed to support permitting and regulation of residential rainwater systems. 	
		 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. 	
		 Pursue funding sources to provide rebates and reduce permit fees for cisterns. 	
		 Provide outreach support for water-efficient landscaping programs, classes, and businesses. 	
		In partnership with PG&E and local alternative energy companies, develop an Alternative Energy Development Plan that includes	

TABLE 1-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		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 wind power facilities. As part of this plan:	
		 Propose phasing and timing of alternative energy facility and infrastructure development. 	
		 Conduct a review of City policies and ordinances and establish a development review process for new alternative energy projects that ensures noise, aesthetic, and other potential land use compatibility conflicts are avoided (e.g., installing tracking solar PV or angling fixed solar PV in a manner that reduces glare to surrounding land uses). 	
		 Develop a renewable energy expansion plan for the City. 	
		 Consider reducing permitting fees or other incentives for alternative energy development. 	
		 Participate in regional efforts to implement Community Choice Aggregation (CCA). 	
GHG-2: The proposed Plan would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.	LTS	N/A	
GHS-3: The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in a significant cumulative impact with respect to GHG emissions.	S	GHG-3: Implement Mitigation Measure GHG-1.	SU
2. Introduction

This Draft Environmental Impact Report (DEIR) provides an assessment of the potential environmental consequences of adoption and implementation of the proposed Capitola General Plan Update (proposed Plan). This assessment is intended to inform the City of Capitola decision-makers, other responsible agencies, and the public at large of the nature of the General Plan Update and its potential effects on the environment. This DEIR was prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) requirements. The City of Capitola is the lead agency under CEQA.

2.1 PROPOSED ACTION

The proposed Plan replaces the City's existing General Plan, which was adopted in 1989. The proposed Plan is intended to guide development and conservation in the city through 2035.

The proposed Plan includes the following elements (see Chapter 3, Project Description, for a more detailed description of the proposed Plan):

- Land Use Element. The State-required Land Use Element designates all lands within the City of Capitola for specific uses, such as housing, mixed-use, commercial, industrial, or public.
- Open Space and Conservation Element. The Open Space and Conservation Element combines the Staterequired Open Space and Conservation Elements.
- Mobility Element. State law requires a Transportation Element and stipulates that it identify the general location, the extent of existing and proposed major transportation facilities, and the plan for a multimodal transportation network that meets the needs of all users.
- Safety and Noise Element. The Safety and Noise Element combines the State-required Safety and Noise Elements.
- Economic Development Element. The optional Economic Development Element identifies economic challenges and opportunities, and sets forth policies to guide the economy toward fulfilling the community's vision and maintain the economic strength of the city.

2.2 EIR SCOPE

This document is a Program EIR that analyzes potential environmental impacts of adopting the proposed General Plan Update. As a Program EIR, it is not project-specific, and does not evaluate the impacts of specific projects that may be proposed under the Plan. Such subsequent projects will require a separate environmental review to

secure the necessary development permits. While a subsequent environmental review may be tiered off this EIR, this EIR is not intended to address impacts of individual projects.

The scope of this EIR was established by the City of Capitola through the EIR scoping process.

2.2.1 POTENTIALLY SIGNIFICANT IMPACTS

Pursuant to CEQA Guidelines Sections 15126.2 and 15126.4, the environmental issues addressed in this Draft EIR include the following potentially significant adverse impacts:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Parks and Recreation
- Traffic and Transportation
- Utilities and Service Systems
- Greenhouse Gas Emissions

2.2.2 IMPACTS CONSIDERED LESS THAN SIGNIFICANT

CEQA Guidelines Section 15128 allows environmental issues for which there is no likelihood of significant impact to be "scoped out" and not analyzed further in the EIR. It was determined that the proposed Plan would not result in significant impacts with respect to the following resource categories (a detailed discussion of the reasoning, by which this determination was made, is included in Chapter 7 of this Draft EIR):

- Agriculture and Forestry Resources
- Mineral Resources

2.2.3 INCORPORATION BY REFERENCE

The following documents are incorporated by reference in this Draft EIR, consistent with Section 15150 of the State CEQA Guidelines, and are available for review at the City of Capitola Community Development Department:

- City of Capitola General Plan
- City of Capitola Municipal Code
- City of Capitola Zoning Ordinance
- CEQA Guidelines
- City of Capitola Housing Element, 2007-2014
- Santa Cruz Area Emergency Management Plan
- Capitola Local Hazard Mitigation Plan
- Capitola Local Coastal Program
- Central Fire Protection District Master Plan/Strategic Plan
- Soquel Creek Water District Urban Water Management Plan
- City of Santa Cruz Water Department Urban Water Management Plan
- Soquel Creek Water District Partial Well Master Plan
- Santa Cruz County Sewer System Management Plan
- Santa Cruz County Sewer System Capital Improvement Program 2013-2017
- Santa Cruz County Sanitation District Ordinances
- Santa Cruz County Integrated Waste Management Plan

This Draft EIR relies upon previously adopted regional and statewide plans and programs, agency standards, and background studies in its analysis, such as the City's General Plan, the Association of Monterey Bay Area Governments Metropolitan Transportation Plan, and the CEQA Air Quality Handbook. Whenever existing environmental documentation, or previously prepared documents and studies, is used in the preparation of this Draft EIR, the information is summarized for the convenience of the reader and incorporated by reference. Chapters 4.1 through 4.14 of this Draft EIR provide a complete listing of utilized references.

2.3 REPORT ORGANIZATION

The Draft EIR is organized into the following chapters:

- Section 1. Executive Summary: Summarizes the background and description of the proposed Plan, the format of this EIR, alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the Plan. Table 2.1 summarizes recommended mitigation measures and indicates the level of significance of environmental impacts before and after mitigation.
- Section 2. Introduction: Provides a preface and overview describing both the intended use of the document and the review and certification process of both the proposed Plan and the EIR.

- Section 3. Project Description: Describes the Draft General Plan Update in detail, including a summary of the chapters of the Plan and a listing of proposed land use designation changes.
- Section 4. Environmental Assessment: Organized into 15 chapters corresponding to the environmental resource categories identified in Appendix G of the CEQA Guidelines, this section provides a description, from both a local and regional perspective, of the physical environmental conditions in the vicinity of the project as they existed at the time the Notice of Preparation was published, as well as an analysis of the potential environmental impacts of the proposed Plan and recommended mitigation measures, if required, to reduce their significance. The environmental setting included in each chapter provides baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed Plan. Each chapter also includes a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the Plan; and the potential cumulative impacts associated with the proposed Plan and other existing, approved, and proposed development in the area.
- Section 5. Significant and Unavoidable Adverse Impacts: Describes the significant unavoidable adverse impacts of the proposed Plan.
- Section 6. Alternatives to the Proposed Plan: Considers three alternatives to the proposed Plan, including the CEQA-required "No Project Alternative" and a Reduced Commercial Floor Area Ratio (FAR) Alternative.
- Section 7. CEQA Mandated Sections: Discusses growth inducement, cumulative impacts, unavoidable significant effects, and significant irreversible changes as a result of the proposed Plan. Additionally, this section identifies environmental issues scoped out pursuant to CEQA Guidelines Section 15128.
- Section 8. Organizations and Persons Consulted: Lists the people and organizations that were contacted during the preparation of this EIR for the proposed Plan.

2.4 ENVIRONMENTAL REVIEW PROCESS

2.4.1 DRAFT EIR

The Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a period of 60 days, consistent with State law. Written comments on the Draft EIR are encouraged for incorporation into the Final EIR and should be submitted to:

Mr. Richard Grunow Community Development Director City of Capitola 420 Capitola Ave. Capitola, CA 95010 (831) 475-7300 rgrunow@ci.capitola.ca.us The Draft EIR will also be posted online on the City of Capitola's Website: http://www.plancapitola.com/

2.4.2 FINAL EIR

Upon completion of the 60-day review period, the City of Capitola will review all written comments received and prepare written responses for each comment. A Final EIR (FEIR) will then be prepared, incorporating all of the comments received, responses to the comments, and any changes to the Draft EIR that result from the comments received. The FEIR will then be presented to the Capitola City Council for potential certification as the environmental document for the Plan. All persons who commented on the Draft EIR will be notified of the availability of the FEIR and the date of public hearings before the Planning Commission and City Council.

All responses to comments submitted on the Draft EIR by agencies will be provided to those agencies at least 10 days prior to final action on the Plan. The City Council will make findings regarding the extent and nature of the impacts, as presented in the FEIR. The FEIR will need to be certified as complete by the City prior to making a decision to approve or deny the Plan. Public input is encouraged at all public hearings before the City.

2.4.3 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that the lead agency adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code 21081, or adopt a Negative Declaration pursuant to Public Resources Code Section 21080(c). This is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration. The Mitigation Monitoring Program for the proposed Plan will be completed as part of the FEIR and will be completed prior to consideration of the Plan by the Capitola City Council.

INTRODUCTION

3. Project Description

This Draft Environmental Impact Report (EIR) provides an assessment of the proposed Capitola General Plan (proposed Plan), published as a Draft for public review on September 6, 2013 and available for review concurrent with this Draft EIR. The proposed General Plan replaces the City's existing General Plan, which was adopted in 1989. The proposed Plan is intended to guide development and conservation in the city through 2035.

The City's Housing Element was last updated in 2010 and has already undergone separate environmental review as part of its adoption process. Therefore, the Housing Element is not analyzed as part of this EIR.

Pursuant to the CEQA Guidelines, Chapter 14 California Code of Regulations, Section 15378[a], the proposed Plan is considered a "project" subject to environmental review as the implementation of these documents constitutes "an action [undertaken by a public agency] which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment." This Draft EIR compares the buildout potential for the proposed Plan with the existing baseline condition, described in detail in each section of chapter 4.0, Environmental Analysis.

This chapter of the Draft EIR describes the proposed General Plan and the processes that created it.

3.1 PROJECT LOCATION

Capitola is a coastal community located along the Monterey Bay. The City of Capitola is centrally located in Santa Cruz County, east of the City of Santa Cruz, as shown in Figure 3-1. With a land area of 1.7 square miles, Capitola is home to a population of approximately 10,000 residents. Highway 1 runs east-west along the northern border of the city. Highway 17 is located northwest of Capitola and connects the coastal communities to Silicon Valley and San Francisco Bay Area to the north.

Capitola is a unique coastal community with its own special sense of place. 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. An assortment of residential neighborhoods contributes to the unique identity and family-friendly character of the community. Capitola is also home to the Capitola Mall, King's Plaza, and other region-serving retail establishments along 41st Avenue.

PROJECT DESCRIPTION



Source: City of Capitola, 2010.

Figure 3-1 Regional Location

3.2 PLAN AREA

Figure 3-2 shows the Capitola City limit and Sphere of Influence (SOI). The SOI is a boundary that typically shows areas that jurisdictions may annex in the future, and for which urban services would be provided. In Capitola's case, there are no immediate plans to annex lands within the SOI. These areas, such as Pleasure Point and Soquel, have established identities separate from Capitola within unincorporated Santa Cruz County. However, the SOI boundary does signal to the County, and to other nearby local and regional authorities, that Capitola recognizes that development within this area may have an impact on the future of the city.

The Plan Area for this EIR encompasses the city limits and SOI.

3.3 STATEMENT OF OBJECTIVES

The proposed Plan provides the basis for the City's land use and development policy and represents the basic community values, ideals, and aspirations that will govern development and conservation through the planning horizon year of 2035. The following Guiding Principles are included in the proposed Plan and outline the objectives of the proposed Plan:

- Community Identity. Preserve and enhance Capitola's intimate small-town feel and coastal village charm. Ensure that all areas of Capitola, not just the Village, possess a unique, memorable, and high-quality identity. Promote Capitola's reputation as a community that is sustainable, welcoming, historic, and family-friendly.
- Community Connections. Provide year-round opportunities for residents of all ages to meet and gather in public places. Enhance the ability for residents to engage in civic life. Ensure that all neighborhoods enjoy access to high-quality community events, services, and amenities that foster community connections.
- Neighborhoods and Housing. Protect and enhance the quality of life within residential neighborhoods. Strive for neighborhoods that are stable, inclusive, and friendly. Minimize impacts to neighborhoods—such as noise, cut-through traffic, and overflow parking—caused by new development.
- Environmental Resources. Embrace environmental sustainability as a foundation for Capitola's way of life. Protect and enhance all natural resources—including the beaches, creeks, ocean, and lagoon—that contribute to Capitola's unique identity and scenic beauty. Reduce greenhouse gas emissions and prepare for the effects of global climate change, including increased flooding and coastal erosion caused by sea-level rise.
- Economy. Support a local economy that is vibrant, diverse, and dynamic. Create a brand identity for Capitola that is grounded in the city's unique identity. Support local businesses, "green" businesses, and employers that provide jobs for Capitola residents.

PROJECT DESCRIPTION



Source: City of Capitola, 2010; The Planning Center | DC&E, 2013.

- Fiscal Responsibility. Practice fiscally responsible municipal decision making to avoid shifting today's costs to future generations.
- Mobility. Provide a balanced transportation system that accommodates the needs of automobiles, pedestrians, and bicycles. Reduce dependence on the automobile with a complete network of sidewalks, trails, and pathways, and support development patterns that encourage the use of public transportation. Promote transportation options that are safe and convenient for all residents, including youth, seniors, and persons with disabilities.
- Health and Safety. Promote a safe and healthy community for people of all ages. Ensure that residents, businesses, and visitors are protected from natural and man-made disasters. Continue to provide excellent public services that support the public well-being while enhancing a sense of community.

3.4 PROJECT CHARACTERISTICS

As described above, the proposed Plan is considered a project under CEQA. This Draft EIR compares the buildout potential for the proposed Plan with the existing baseline condition, described in detail in chapters 4.0 through 4.14 of Section 4.0, Environmental Analysis.

3.4.1 PLAN BACKGROUND

This section describes the current, adopted General Plan as well as existing land uses in Capitola and its SOI.

3.4.1.1 EXISTING GENERAL PLAN

The City of Capitola's current General Plan was adopted on September 28, 1989 and contains the following elements:

- Land Use
- Housing (Update adopted 2004)
- Open Space, Parks, and Recreation
- Conservation
- Safety
- Noise
- Circulation

3.4.1.2 EXISTING LAND USES

Existing land uses in Capitola include residential, commercial, industrial, and mixed-use districts as described below:

- Residential neighborhoods include Depot Hill, Riverview Terrace, Cliffwood Heights, Jewel Box, and Upper Village. These neighborhoods contain a mixture of single-family homes, multi-family dwellings, and mobile home parks.
- Commercial and industrial districts include 41st Avenue/Capitola Mall, Bay Avenue, and Kennedy Drive. 41st Avenue and Capitola Mall constitute the primary regional retail destination in Santa Cruz County.
- Mixed-use districts include Capitola Village and Capitola Avenue. Capitola Village is the "heart" of Capitola with a mixture of visitor-serving commercial establishments, public amenities, and residential uses, including transient residential uses such as vacation rentals and hotels and motels.

Capitola is surrounded by a variety of land uses, including residential uses in unincorporated Santa Cruz County to the south and west, commercial and residential uses to the north, and park and open space uses in the New Brighton State Park to the east.

Existing land use refers to the type of business, activity, or use that occupies a property at the present moment. Existing land use is different from General Plan land use designations and zoning districts, which identify the land uses *permitted* by City regulations on a particular property. As shown in Table 3-1, 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. 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 (a total of 4 percent for all three categories). A relatively large percentage of the city (14 percent) is occupied by beaches, open space and recreational land uses, and approximately 5 percent of land is vacant. The location of these existing land uses is shown in Figure 3-3. As noted on Figure 3-3, existing land use data is based upon Santa Cruz County Assessor data and is intended to provide a general sense of existing land use in Capitola. As a result, Figure 3-3 may contain inaccuracies on individual parcels due to limitations with the data.

3.4.2 GENERAL PLAN UPDATE PROCESS

The process to update the General Plan began in 2011 and is scheduled to be completed with the adoption of the proposed Plan in Spring 2014.

The proposed Plan was developed with extensive community input. Widely-publicized community workshops were held to inform community members about the General Plan Update process and invite feedback. Four community workshops have been held on the following topics:

- March 19, 2011: Issues and Opportunities (120 attendees)
- July 20, 2011: 41st Avenue/Capitola Mall Special Study Area (30 attendees)

PROJECT DESCRIPTION



Disclaimer: This map is based upon Santa Cruz County Assessor data and is intended to provide a general sense of existing land use in Capitola. Please note that the map may contain inaccuracies on individual parcels due to limitations with the data.

Source: Santa Cruz County Assessor, 2010.

Figure 3-3 Existing Land Uses

PROJECT DESCRIPTION

TABLE 3-1 EXISTING LAND USES

	Acres	Percent
Residential Uses	442	53%
Mobile Home Park	68	8%
Single-Family Residential	219	26%
Multiple-Family Residential	155	18%
Commercial, Industrial, and Mixed Uses	187	21%
Retail	97	11%
Office	17	2%
Other Commercial	50	6%
Industrial, Warehousing, and Storage	11	1%
Mixed Use	12	1%
Other Uses	216	26%
Open Space/Recreational	116	14%
Public/Quasi-Public	57	7%
Vacant Parcels	43	5%
TOTAL*	845	

Source: Santa Cruz County Assessor, 2010.

- November 12 and 13, 2011: Capitola Village Special Study Area (80 attendees)
- May 12, 2012: Pacific Cove/City Hall Special Study Area (15 attendees)

A General Plan Advisory Committee (GPAC) was formed to make recommendations on identified topics and advise and inform City staff, the Project consultant team, and decision-makers. The GPAC is comprised of Capitola residents as well as members of six City commissions and committees: the Planning Commission, Economic Development Committee, Traffic and Parking Commission, Finance Advisory Committee, Art and Cultural Commission, and Commission on Environment. The GPAC met 15 times on the following topics:

- February 16, 2011, Project Introduction
- April 27, 2011, Existing Conditions and Guiding Principles
- May 18, 2011, Housing Element and Regulatory Setting
- June 22, 2011, 41st Avenue/Capitola Mall Special Study Area
- August 17, 2011, Bay Avenue Special Study Area
- September 21, 2011, 41st Avenue/Capitola Mall Special Study Area
- October 19, 2011, Capitola Village Special Study Area
- February 15, 2012, Sustainability and Capitola Village
- June 20, 2012, Pacific Cove/City Hall Special Study Area

- August 8, 2012, Draft Land Use Map
- September 12, 2012, Land Use Element
- October 17, 2012, Open Space and Conservation Element
- November 14, 2012, Safety and Noise Element
- December 11, 2012, Mobility Element
- January 16, 2012, Economic Development Element
- September 11, 2013, Draft General Plan

In addition, as part of the General Plan process the City has engaged stakeholders on various topics. Work sessions with stakeholders have been held on the following topics:

- February 23, 2011, 41st Avenue
- May 5, 2011, Bay Avenue
- August 24, 2011, Green Economy
- October 12, 2011, Capitola Village
- March 23, 2012, Pacific Cove/City Hall

The City created a General Plan website at www.plancapitola.com to enhance and inform the public process. The website provides documents, announcements, and meeting materials related to the General Plan.

The process to update the General Plan included the phases described below:

- Existing Conditions. The first phase of the process was devoted to researching and documenting baseline environmental conditions in Capitola. This effort resulted in a series of technical memoranda covering land use, population and housing, parks and open space, historic resources, economic and market conditions, transportation and parking, environmental resources and hazards, public services, utilities, and infrastructure. These memoranda informed the issues-identification phase and the development of land use alternatives, and they provided the foundation for the baseline conditions information in this EIR.
- Guiding Principles Development and Issues Identification. During this phase of the process, Guiding Principles were developed to serve statements of core community values to guide growth, conservation, and enhancement in Capitola. The Guiding Principles for the General Plan were developed starting with input from community workshop participants and GPAC members. Additionally this phase included a community workshop to identify issues and opportunities for the General Plan. The workshop offered the public information on the General Plan, and provided a chance for community members to discuss community issues in small groups facilitated by City and/or consultant staff and GPAC members. The issues that were discussed included community character and vision, environmental protection and sustainability, and economic development.
- Special Studies. As part of the General Plan Update process, special consideration was given to four key areas of the city: the 41st Avenue corridor, the Bay Avenue corridor, Capitola Village, and the Pacific Cove special study area. Reports containing background information and detailed analysis of issues specific to each of these areas were compiled, and community meetings were held to consider potential solutions and options. These special studies informed development of citywide policies in the General Plan.

- Policy Development. Based on the issues identified; opportunities for growing the green economy; special study area planning; and other feedback received from the community, stakeholders, and GPAC; goals, policies, and actions for each element of the General Plan were created.
- Draft General Plan. Prior to the publication of this Draft EIR, the City published a draft version of the General Plan for public review and comment. The Draft General Plan is based upon the goals, policies, and actions developed through the prior phases, integrated with feedback collected during the community participation process.

3.4.3 DESCRIPTION OF THE PROJECT

3.4.3.1 DESCRIPTION OF THE PROPOSED PLAN

General Plan Organization

The organization structure of the existing General Plan has been slightly revised in the proposed General Plan. In addition, some elements have been reorganized, and the proposed General Plan adds an optional element not included in the existing General Plan. The proposed General Plan contains five elements addressing the Statemandated topics of land use, circulation, housing, open space, conservation, safety, and noise, supplemented with the optional economic development element. In addition, whereas the existing Local Coastal Program is integrated into the existing General Plan, under the proposed Plan the two documents are separate.

Each element begins with a discussion of background conditions in Capitola and then presents a series of numbered goals, policies, and actions. Goals describe an overall and ultimate end state toward which the City directs its efforts. Policies are specific statements that guide decision-making as the City works to achieve a goal. Actions are carried out to implement policies. Actions may be ongoing operating procedures or one-time measures. Policies and actions are at the same level of importance, and both are intended to implement goals.

General Plan Elements

The proposed General Plan includes the following elements:

- Land Use Element. The State-required Land Use Element designates all lands within the City of Capitola for specific uses such as housing, mixed-use, commercial, industrial, or public.
- Open Space and Conservation Element. The Open Space and Conservation Element combines the two State-required Open Space and Conservation Elements. State law identifies a series of topics that must be addressed in the Open Space and Conservation Elements. Not all required topics are discussed in the Open Space and Conservation Element because either they are included elsewhere in the General Plan or such resources do not exist in Capitola. The Open Space and Conservation Element addresses environmental sustainability and stewardship, climate change and GHG reduction, air quality, renewable energy sources and

energy conservation, biological resources, water quality and conservation, food production, and waste reduction.

- Mobility Element. State law requires that a Transportation Element include "the general location and extent of existing and proposed major thoroughfares, transportation routes, (and) terminals..., all correlated with the Land Use Element of the Plan" (Govt. Code, Sec. 65302[b]). In addition, the California Complete Streets Act (AB 1358), passed in 2008, requires all General Plan updates after January 1, 2011 to "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel" and defines "users of streets, roads, and highways" to include pedestrians, bicyclists, users of public transportation, motorists, children, persons with disabilities, and seniors.
- Safety and Noise Element. The Safety and Noise Element combines the two State-required Safety and Noise Elements. The Safety and Noise Element addresses risks in Capitola to the community's health and safety, identifying potential hazards and providing policies to protect against and mitigate those hazards.
- Economic Development Element. The optional Economic Development Element identifies economic challenges and opportunities, and sets forth policies to guide the economy toward fulfilling the community's vision and maintain the economic strength of the city.

Proposed Land Use

The proposed General Plan includes a total of 12 land use designations applied to land within the city, as shown in Figure 3-4. Table 3-2 presents a breakdown of proposed land use designations, showing the citywide acreage for each designation and percentage of total area within city limits.

The number of residential land use designations has been consolidated from four to two designations, Single-Family Residential and Multi-Family Residential. The number of commercial land use designations has been reduced from four to three, Regional Commercial, Community Commercial, and Visitor Accommodations. Two new mixed-use designations have been added, Village Mixed-Use and Neighborhood Mixed-Use. The multiple community facilities designations in the existing General Plan have been consolidated into a single Public/Quasi-Public designation. The Mobile Home, Industrial, Parks and Open Space, and Visitor Serving Overlay designations have been maintained.

Proposed land use designations are described below. The General Plan defines various land use designations by their allowable uses and maximum allowable development density on each parcel of land. In general, standards of building intensity for residential uses are stated as a maximum allowable number of dwelling units per acre (DU/ac) and building intensity for non-residential uses are stated as maximum floor area ratio (FAR). As shown in the diagram below, FAR is defined as the gross floor area divided by the total square footage of the lot. The allowable FAR in commercial areas such as the 41st Avenue corridor has been increased from 0.5 to 2.0 or 3.0 under the proposed Plan. The number of units permitted will be further modified by the zoning district and any applicable overlay district. Table 3-3 compares the allowable development densities and intensities for the existing and proposed General Plans.

PROJECT DESCRIPTION



Source: City of Capitola, 2010.

Figure 3-4 Proposed General Plan Land Use Designations

Proposed Designation	Acres	Percent of Total Acres
Residential Designations		
Single-Family Residential (R-SF)	215.1	26.2
Multi-Family Residential (R-MF)	154.6	18.9
Mobile Home (R-MH)	69.8	8.5
Commercial/Industrial Designations		
Regional Commercial (C-R)	97.0	11.8
Community Commercial (C-C)	81.5	9.9
Visitor Accommodations (VA)	3.3	0.4
Industrial	6.1	0.7
Mixed-Use Designations		
Village Mixed-Use (MU-V)	12.3	1.5
Neighborhood Mixed-Use (MU-N)	17.0	2.1
Other Designations		
Parks and Open Space (P/OS)	99.7	12.2
Public/Quasi-Public (P/QP)	63.2	7.7
Overlays		
Visitor Serving (VS)	0.3	Less than 0.1
Note: Total may not add up to 100% due to rounding.		

TABLE 3-2 PROPOSED GENERAL PLAN LAND USE DESIGNATIONS

Note: Total may not add up to 100% due to rounding Source: City of Capitola, 2013.

FIGURE 3-5

DEFINITION OF FLOOR AREA RATIO



PROJECT DESCRIPTION

TABLE 3-3 EXISTING AND PROPOSED GENERAL PLAN, ALLOWABLE DEVELOPMENT DENSITY/INTENSITY

	Allowable Density/Intensity	
Land Use Designation	Existing General Plan	Proposed General Plan
Residential Designations		· · · · · · · · · · · · · · · · · · ·
Residential Low (R-L)	2 DU/ac	N/A
Single-Family Residential (R-SF) ^a	5-10 DU/ac	10 DU/ac
Residential Medium (R-M)	10-15 DU/ac	N/A
Multi-Family Residential (R-MF) ^b	10-20 DU/ac	10-20 DU/ac
Mobile Home Park (R-MH) ^c	20 DU/ac	20 DU/ac
Commercial/Industrial Designations		
Pedestrian Commercial (C-P)	0.5 FAR	N/A
Residential Commercial (C-R)	0.5 FAR	N/A
Local Commercial (C-LC)	0.5 FAR	N/A
Regional Commercial (C-R) ^d	0.5 FAR	2.0 FAR (up to 3.0 FAR on special sites)
Community Commercial (C-C)	N/A	1.5 FAR (up to 2.5 FAR on special sites)
Visitor Accommodations (VA)	N/A	0.5 FAR
Industrial	0.5 FAR	0.5 FAR
Mixed-Use Designations		
Village Mixed-Use (MU-V)	N/A ^e	2.0 FAR (up to 3.0 FAR for a hotel)
Neighborhood Mixed-Use (MU-N)	N/A	1.0 FAR
Other Designations		
Parks and Open Space (P/OS)		
Community Facilities		N/A
Public/Quasi-Public (P/QP)	N/A	
Overlays		

_ _

Visitor Serving (-VS)f

DU/ac = dwelling units per acre Notes:

N/A = not applicable; land use designation does not exist in the specified General Plan FAR = Floor Area Ratio

FAR = Floor Area Ratio
- - = no allowable density/intensity specified for land use designation
a. Designation is in the existing General Plan as the Residential Low to Medium (R-LM) designation.
b. Designation is in the existing General Plan as the Residential High (R-H) designation.
c. Designation is in the existing General Plan as the Residential Mobile Home designation.
d. Designation is in the existing General Plan as the Regional Shopping (C-SR) designation.

e. Under the existing General Plan, the allowable building density/intensity for Capitola Village is set forth in the Central Village Design Guidelines. f. Designation is in the existing General Plan as the Visitor Service Use designation.

Source: City of Capitola, 1989 and 2013.

Based on base designation

The proposed residential land use designations are as follows:

- Single-Family Residential (R-SF). The R-SF designation applies to residential neighborhoods primarily characterized by detached single-family homes. Permitted land uses include single-family homes and public facilities such as schools, religious institutions, parks, and other community facilities appropriate within a residential neighborhood. The maximum permitted residential density in the R-SF designation is 10 DU/ac.
- Multi-Family Residential (R-MF). The R-MF designation applies to areas primarily intended for multi-family residential development. All residential uses are permitted in the R-MF designation, including single-family homes, duplex homes, townhomes, and multi-family structures. Public facilities, such as schools, religious institutions, parks, and other community facilities appropriate within a multi-family residential setting are also permitted. The permitted residential density in the R-MF designation ranges from 10 to 20 DU/ac. The R-MF designation will be implemented by three multi-family zoning districts, which allow different maximum densities.
- Mobile Home Park (MH). The MH designation provides areas for use as mobile home parks to provide a valuable source of affordable housing for Capitola residents. Mobile home coaches and other land uses typically associated with mobile home parks are permitted within the MH designation. A maximum of 20 mobile homes per acre are permitted in the MH designation.

The proposed mixed-use land use designations are as follows:

- Village Mixed-Use (MU-V). The MU-V designation applies to the central Capitola Village area and supports a vibrant pedestrian-friendly environment that is the heart of Capitola. A fine-grain mixture of commercial, residential, visitor-serving, recreational, and public uses are permitted in the MU-V designation. The maximum permitted FAR in the MU-V designation is 2.0, with an FAR of 3.0 permitted for a hotel if special criteria are met as established in the Zoning Code.
- Neighborhood Mixed-Use (MU-N). The MU-N designation applies to pedestrian-oriented mixed-use areas with an emphasis on resident-serving stores and services. Permitted uses in the MU-N designation include single-family homes, multi-family developments, retail, personal services, community facilities, and other uses compatible with an eclectic neighborhood-oriented mixed-use district. The maximum permitted FAR is 1.0.

The proposed commercial and industrial land use designations are as follows:

- Regional Commercial (C-R). The C-R designation provides an area for general retail and services for Capitola residents and regional shoppers. Permitted land uses include shopping malls, auto sales, general retail, personal and business services, restaurants, offices, and similar commercial uses. The maximum permitted FAR in the C-R designation is 2.0, with an FAR of 3.0 permitted on select sites if special criteria are met as established in the Zoning Code.
- Community Commercial (C-C). The C-C designation provides an area for commercial uses primarily serving Capitola residents. Permitted land uses include general retail, personal services, restaurants, offices, and multi-family housing as part of a mixed-use project. The maximum permitted FAR in the C-C designation is 1.5, with an FAR of 2.5 permitted on select sites if special criteria are met as established in the Zoning Code.

- Visitor Accommodations (VA). The VA designation applies to areas that provide overnight visitor accommodations. Permitted land uses in the VA designation include hotels, motels, hostels, bed and breakfast lodgings, campgrounds, resorts, and ancillary visitor-serving food and service establishments. The maximum permitted FAR in the VA designation is 0.5.
- Industrial (I). The I designation provides an area in Capitola for light industrial and other employment uses. Permitted land uses include manufacturing facilities, vehicle repair, research and development laboratories, administrative offices, warehouses, and homeless shelters. The maximum permitted FAR in the I designation is 0.5.

Other designations include the following:

- Parks and Open Space (P/OS). The P/OS designation applies to public parks and open space intended for recreational use and/or natural resource preservation. Parks, playgrounds, trails, recreational facilities, visitor centers, and other similar uses are permitted in the P/OS designation. There is no maximum permitted FAR in the P/OS designation.
- Public/Quasi-Public Facility (P/QP). The P/QP designation provides areas for public and community facilities serving Capitola residents and visitors. Permitted land uses in the P/Q designation include governmental offices, police and fire stations, community centers, schools, libraries, churches, and other similar uses. There is no maximum permitted FAR in the P/QP designation.
- Visitor Serving Overlay (-VS). The -VS overlay designation applies to areas where additional visitor-serving uses are permitted in addition to the land uses permitted by the base designation. Additional visitor-serving uses permitted in the -VS designation include hotels, motels, hostels, bed and breakfast lodgings, campgrounds, resorts, and ancillary visitor-serving food and service establishments. The maximum permitted development intensity within the -VS overlay designation is determined by the applicable base designation.

3.4.4 BUILDOUT PROJECTIONS

This section provides a quantification of the future population, housing units, and jobs that could result from buildout of the proposed Plan. Buildout projections have been developed in order to allow for an evaluation of the "reasonably foreseeable" direct and indirect impacts of the proposed Plan, as required under CEQA. This section includes a discussion of baseline data and horizon year (2035) buildout projections.

The buildout projections used in this Draft EIR reflect the amount and type of development that is reasonably foreseeable under the Plan by 2035. The buildout projections in the Draft EIR, as described in detail in Section 3.4.4.2 below, are based on the assumption that development of housing opportunity sites identified in the 2007-2014 Housing Element will occur. Given the approximate 20-year Plan horizon, it is likely that there will be deviations from the development projections. However, deviations from the projected 2035 buildout are not in themselves a basis for finding inadequacy of the Plan or the Draft EIR, since these projections represent the City's projection of "reasonably foreseeable" development under the Plan. The resulting number of housing units, 80 in total, is higher than AMBAG's projection of 19. Given past development trends in Capitola, City staff and the EIR

consultant believe this is an appropriate level of growth to use in this Draft EIR to provide an environmentally conservative analysis.

Baseline and horizon year buildout are shown in Table 3-4. As shown in Table 3-4, it is estimated that under the proposed Plan the population of Capitola could grow by 280 persons, with 80 new housing units. It is expected that 1,200 additional jobs will exist in Capitola by 2035.

	Baseline	2035	Change
Population	9,918	10,198	+ 280
Housing Units	5,534	5,614	+ 80
Jobs	6,170	7,370	+ 1,200
Persons per Household	1.79	1.82	+ 0.02

TABLE 3-4 BUILDOUT SUMMARY

Source: City of Capitola, 2013.

3.4.4.1 BASELINE POPULATION, HOUSING, AND EMPLOYMENT METHODOLOGY

Baseline population, housing, and employment numbers for the City of Capitola were taken from Association of Monterey Bay Area Governments (AMBAG) regional growth forecasts. The regional forecasts do not provide the breakdown by traffic analysis zone (TAZ) required for technical modeling; therefore, citywide numbers were allocated by TAZ using Santa Cruz County Assessor data that was ground-truthed by City staff.

Housing units were allocated from AMBAG's total figure for the City of Capitola to each TAZ by multiplying the acreage of residential parcels by the number of DU/ac. The intensity used in this calculation was reduced from the General Plan's maximum allowable density to a reasonable average in order to account for actual development patterns. Population by TAZ was then calculated from the number of units, assuming an average household size of 1.79 persons, which is consistent with U.S. Census data.

Employment numbers were calculated based on the square footage of job-generating land uses in each TAZ. The square footage of each land use was calculated using parcel data and adjusted for actual buildout (i.e., building square footage) using aerial photos. The number of jobs for each TAZ was then calculated by multiplying the commercial square footage by assumptions of square feet per job for different types of commercial uses. These assumptions are based on empirical data adjusted for conditions in Capitola.¹

¹ Southern California Area Governments (SCAG), 2001, *Employment Density Study Summary Report*. The Natelson Company, Inc., October 31.

3.4.4.2 HORIZON YEAR POPULATION, HOUSING, AND EMPLOYMENT PROJECTION METHODOLOGY

The General Plan does not propose changes to land use designations outside the city limits, so growth outside the city is not looked at in the horizon year (2035) projections. These projections for 2035 consider buildout only within the city limits.

A review of the number of housing units approved in Capitola between 2005 and 2010 indicates substantial growth. However, given the limited availability of sites for development and current economic conditions, it seems unlikely that the same rate of housing growth will occur over the planning horizon of the proposed General Plan. Therefore, in order to estimate the level of housing growth likely to occur under the proposed Plan, development of housing opportunity sites identified in the 2007-2014 Housing Element was assumed as follows:

- In TAZ 518, it was assumed that 1575 38th Avenue (Capitola Freight and Salvage) would be redeveloped with 23 multi-family units as approved by the City of Capitola in July 2013; and that 3754 & 3780 Capitola Road would be redeveloped with 11 multi-family units.
- In TAZ 526, it was assumed that 4250-4310 Capitola Road (Anderson/Dharma site) would be redeveloped with 19 multi-family units.
- In TAZ 538, it was assumed that a total of 10 secondary dwelling units (SDUs) would be developed on prospective lands zoned R-1 identified in the Housing Element as having the potential to accommodate SDUs.
- In TAZ 534, it was assumed that 600 Park Avenue would be redeveloped with a total of 16 multi-family units. This is approximately 50 percent of the potential buildout estimated in the Housing Element. The reduction in projected number of units developed was made in view of current economic conditions and the challenges of building affordable housing.

The resulting number of units, approximately 80 in total, is higher than AMBAG's projection of 19, but based on the available sites and Capitola's development history, this projection is more realistic.

The AMBAG Regional Forecast assumed a 20 percent increase in jobs between 2010 and 2035 based on the increase projected for California. While Capitola may not realize the Statewide job growth projections, the AMBAG Regional Forecast was utilized to provide a conservative analysis for the purposes of this Draft EIR. To allocate those jobs to each TAZ, a 20 percent increase was assumed for each TAZ. However, it is anticipated that employment growth will largely be focused on commercial corridors such as 41st Avenue north of Capitola Avenue and along mixed-use corridors such as Bay Avenue. To account for this geographic concentration of future job growth, the job numbers were adjusted by TAZ to reflect anticipated levels of development. The projected number of jobs in Capitola in 2035 is consistent with AMBAG's forecast.

To calculate new non-residential square footage, the existing square footage was multiplied by the increase in job growth that would necessitate new non-residential development. However, due to the recent recession, jobs had decreased between the employment peak (2007) and 2010, so a portion of the job growth is anticipated to be job recovery. As recovered jobs would not necessitate new commercial space, the 20 percent figure was adjusted by the amount of jobs to be recovered, reduced to 6 percent to account employers not fully rehiring for positions existing

prior to the recession. As a result, total square footage for non-residential land in the City of Capitola in 2035 was calculated by increasing existing non-residential square footage by 16 percent.

3.5 INTENDED USES OF THE EIR

This EIR examines the potential environmental impacts of implementing the proposed Plan and identifies mitigation measures required to address significant impacts, as necessary. As no specific developments are proposed as part of the proposed Plan, this EIR is a programmatic EIR and does not evaluate the potential environmental impacts of specific, individual development proposals that may be allowed under the proposed General Plan subsequent to its adoption. Subsequent projects will be reviewed by the City for consistency with the proposed Plan and this EIR, and adequate project-level environmental review will be conducted as required under CEQA.

This EIR serves as the environmental document for all discretionary actions associated with development under the proposed Plan. This EIR is intended to be the primary reference document in the formulation and implementation of a Mitigation Monitoring and Reporting Program (MMRP) for the proposed Plan. This EIR is also intended to assist other responsible agencies in making approvals that may be required for development under the proposed Plan. Federal, State, regional, and local government agencies that may have jurisdiction over development proposals in the Plan Area include:

- U.S. Army Corps of Engineers (Corps)
- Federal Emergency Management Agency (FEMA)
- California Department of Fish and Wildlife (CDFW)
- California Department of Transportation (CalTrans)
- California Coastal Commission
- Monterey Bay Unified Air Pollution Control District (MBUAPCD)
- Central Coast Regional Water Quality Control Board (San Francisco Bay RWQCB)
- Soquel Creek Water District

The proposed Plan would require the following approvals and discretionary and ministerial actions by the City of Capitola:

Planning Commission	Recommendation to adopt the proposed Plan
	Recommendation to certify the EIR pursuant to CEQA
City Council	Adoption of the proposed Plan
	Certification of the EIR pursuant to CEQA
	Adoption of ordinances, guidelines, programs, and other mechanisms for implementation of the proposed Plan
Other City Boards and	Adoption of programs or other actions that implement the proposed Plan
Commissions	

PROJECT DESCRIPTION

The proposed Plan would also require discretionary and ministerial actions by the following responsible agencies:

Santa Cruz County	
Regional	De litere effectional an data adata data ana altered de serie data de serie adata de serie de serie de serie d
Transportation	Revisions of regional models related to growth and development projections
Commission	
Association of	
Monterey Bay Area	Revisions of regional models related to growth and development projections
Governments	

4. Environmental Analysis

This section consists of 15 chapters that evaluate the environmental impacts of the proposed Plan. In accordance with Appendix G of the CEQA Guidelines, the potential environmental effects of the Draft Plan are analyzed for the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Parks and Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Greenhouse Gas Emissions

4.0.1 FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each chapter in Chapter 4, Environmental Analysis, generally follows the same format and consists of the following sections:

The **Environmental Setting** section contains an overview of the federal, State, and local laws and regulations applicable to each environmental review topic, together with a description of the existing environmental conditions for the environmental factor reviewed.

The **Standards of Significance** section tells how an impact is judged to be significant in this Draft EIR. These standards are based on the CEQA Guidelines and other regulatory criteria where noted.

The **Environmental Impact Discussion** section gives an overview of potential impacts of the proposed Plan and explains why impacts were found to be significant or less than significant prior to mitigation.

ENVIRONMENTAL EVALUATION

The **Cumulative Impact Discussion** section discusses the cumulative impacts created as a result of the combination of the proposed Plan together with other reasonably foreseeable projects.

The **Summary of Significant Impacts and Mitigation Measures** section lists the significant impacts identified in the Impact Discussion section and suggested measures that would mitigate each impact, where such measures are available.

In Chapters 4.1 through 4.15, each numbered impact is considered significant prior to mitigation. Mitigation measures have been suggested that would reduce significant impacts to less-than-significant levels. Following an identified mitigation measure, there is a statement whether the mitigation would reduce the impact to less than significant, or whether it would remain significant and unavoidable.

4.0.2 CUMULATIVE IMPACT ANALYSIS

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. A cumulative impact is the result of the combination of the impact from the project evaluated in the EIR with the related impacts of other reasonably foreseeable projects. In the case of an area-wide planning document such as a General Plan, cumulative effects occur from development under the General Pan within the city, combined with effects of development on lands around the city and region. By definition, development within the General Plan Area would be considered part of the cumulative impacts, as would projected growth in other cities in the region.

Where the incremental effect of a project is not cumulatively considerable, a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. The cumulative impacts analyses in Chapters 4.1 to 4.15 are included in the Impact Discussion in each chapter.

4.0.2.1 GEOGRAPHIC AREA FOR CUMULATIVE ANALYSIS

Individual cumulative impacts may occur over different geographic areas. The cumulative discussions in Chapters 4.1 through 4.15 explain the geographic scope of the area affected by each cumulative effect (e.g., watershed or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing air quality impacts, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions are the best tool for determining the cumulative effect. For most resource issues, the cumulative context evaluated in this EIR includes the area within the Sphere of Influence, which includes the area within Capitola's city limits.

4.0.2.2 CUMULATIVE PROJECTS CONSIDERED

The CEQA Guidelines provide two approaches to analyzing cumulative impacts. The first is the "list approach", which requires a listing of past, present, and reasonably anticipated future projects producing related or cumulative

ENVIRONMENTAL EVALUATION

impacts. The second is the summary approach, wherein the relevant projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions are summarized. A reasonable combination of the two approaches may also be used.

In Chapters 4.1 through 4.15, the cumulative impacts of the proposed Plan take into account growth projected by the proposed Plan for the City of Capitola, in combination with impacts from projected growth in the rest of Santa Cruz County and the surrounding region.

ENVIRONMENTAL EVALUATION

4.1 **AESTHETICS**

This chapter discusses the existing aesthetic character of the Plan Area and its surrounding area, evaluating the potential impacts to aesthetics associated with implementation of the proposed Plan. The following evaluation assesses visual character, scenic vistas, scenic highways, light and glare.

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 REGULATORY FRAMEWORK

This section summarizes State and local regulations, and programs related to aesthetics in the Plan Area. There are no federal regulations pertaining to aesthetics that apply to the proposed Plan.

State Regulations

California Scenic Highway Program

The California Scenic Highway Program, maintained by the California Department of Transportation (Caltrans), protects scenic State highway corridors from changes which would diminish the aesthetic value of lands adjacent to these highways. Caltrans has not designated any highway within Capitola as a scenic highway. Highway 1 adjacent to the Project Area is eligible to become officially designated as a Scenic Highway.¹ The status of a proposed state scenic highway changes from eligible to officially designated when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated a Scenic Highway.²

Local Regulations

Capitola Municipal Code

The City of Capitola's Municipal Code is the primary document that implements the policies and practices of the City. The Municipal Code contains the Zoning Code, the Subdivision Ordinance, the Building and Construction Code, and other titles that are important in implementing the goals and policies in the General Plan.

¹ California Department of Transportation California Scenic Highways Program, http://www.dot.ca.gov/hq/LandArch/ scenic_highways/index.htm, accessed on August 13, 2013.

² California Department of Transportation California Scenic Highways Program, http://www.dot.ca.gov/hq/LandArch/ scenic/faq.htm, accessed on October 7, 2013.

Zoning Code

Title 17 of the Capitola Municipal Code, the Zoning Code, implements the land use and development policies in the General Plan. Among the primary objectives of the Zoning Code are the regulation of building form, placement, density, and the provision of sufficient parking and open space in conjunction with development. The code includes provisions regarding design standards and the process by which development is reviewed by the various boards and councils. Additionally, Chapter 17.46.090, Coastal Permit Approval, of the Capitola Zoning codes includes additional provisions regarding the regulations that apply in coastal regions.

Since Capitola is a General Law City, State Law requires that the Zoning Code be consistent with the General Plan. Given that the Draft 2035 General Plan would amend and augment some of the existing policies and actions of the 1989 General Plan, the Draft 2035 General Plan would also call for the Zoning Code to be updated to reflect those changes.

4.1.1.2 EXISTING CONDITIONS

Typical Views

The topography of Capitola is generally gently sloping and features neighborhoods primarily consisting of residential uses. However, being a popular beach destination for the region, there is also a large amount of visitor serving uses. There are several commercial areas, including the 41st Avenue corridor and the Bay Avenue corridor which include mostly modern style commercial buildings. The Capitola Village area consists primarily of older style historic buildings and places with a mix of commercial and residential uses.

There are no officially designated scenic vistas or view corridors in Capitola. However, there are many places in the city that allow for expansive views of the community, ocean to the southwest and foothills to the north. Some typical views of these scenic resources are shown in Figure 4.1-1.

Scenic Highways

There are no officially designated scenic highways within the city limits of Capitola. However, Highway 1 which passes through Capitola is eligible to become officially designated.³ A 78-mile segment of Highway 1 that runs from the San Luis Obispo County line north to State Route 68 is considered to be official starting approximately 35 miles to the south. Additionally, a 26-mile segment of Highway 1 is designated as an official scenic highway starting approximately 25 miles to the north of Capitola, at the Santa Cruz County line stretching north to Half Moon Bay.

³ California Department of Transportation California Scenic Highways Program http://www.dot.ca.gov/hq/LandArch/scenic_highways/, accessed on August 13, 2013

AESTHETICS



Capitola Village



Depot Hill Neighborhood



Former Capitola Theatre Site



Visual Character

Generally speaking, Capitola is made up of a number of residential neighborhoods and commercial, industrial, and mixed-use districts. These neighborhoods and districts comprise distinctive places that are familiar to Capitola residents and visitors.

Residential Neighborhoods

Depot Hill. The Depot Hill neighborhood overlooks Capitola Village and contains a high concentration of historic single-family homes. The streets in this area relatively narrow and most buildings are moderately setback. The Inn at Depot Hill and Monarch Cove Inn (formerly El Salto Resort), which possess historical significance to the community, are located on the western and eastern sides of the Depot Hill neighborhood, respectively.

Cliffwood Heights. The Cliffwood Heights neighborhood consists primarily of detached single-family homes as well as multiple-family housing on Monterey Avenue and Park Avenue. Monterey Park, Cortez Park, and New Brighton Middle School are also located within the Cliffwood Heights neighborhood.

Upper Village. The primary existing land uses in the Upper Village neighborhood are detached single-family homes, multiple-family apartment complexes, and two mobile home parks. While there are a variety of housing types in this area it is still seen by residents as a cohesive neighborhood.

Riverview Terrace. The Riverview Terrace neighborhood is bordered by Soquel Creek and Capitola Avenue and contains detached single-family homes on smaller lots.

Jewel Box. Existing land uses within the Jewel Box neighborhood include single-family detached homes, multiple-family housing, two mobile home parks, the Jade Street Park and Community Center, and a few non-residential uses along Capitola Road.

41st **Avenue/West Capitola.** The 41st Avenue/West Capitola neighborhood is comprised of an assortment of detached single-family homes, multiple-family housing, and three mobile home parks. The Rispin property, the Shadowbrook property, and the Capitola Library, all of which are significant landmarks in the community, are located along the eastern edge of the neighborhood.

Mixed Use, Commercial, and Industrial Districts

Capitola Village. The Capitola Village mixed-use district is the "heart" of Capitola with a mixture of visitorserving commercial establishments, public amenities, and residential uses. Capitola Village contains a high concentration of landmark destinations, such as the Esplanade Park, Capitola Beach, the Six Sisters, the Venetian, and the Capitola Wharf.

Capitola Avenue. The Capitola Avenue mixed-use district is characterized by an eclectic assortment of small-scale offices, personal services, retail, multiple-family housing, a mobile home park, and single-family homes. The Capitola City Hall, police station, fire station, and historic museum border the Village at the southern end of this district.

41st **Avenue/Capitola Mall**. The 41st Avenue/Capitola Mall commercial district contains a number of regionserving shopping centers, including the Capitola Mall and Kings Plaza shopping center. Other land uses include the Brown Ranch Shopping Center, the Auto Plaza at the northern end of the corridor, the Whole Foods Market, the New Leaf Community Market, the Best Western Inn, and a variety of other retail, office, and service establishments. The area is mostly made up of one and two story buildings with relatively low floor area ratios.

Bay Avenue. The Bay Avenue area is a neighborhood-serving commercial district with stores and services for Capitola residents. Land uses include the recently renovated Nob Hill shopping center, a large vacant parcel north of the Nob Hill shopping center, the Capitola Plaza shopping center, and Gayle's Bakery.

Kennedy Drive. The Kennedy Drive industrial district is occupied by light industrial and service establishments and the City corporation yard.

Light and Glare

Light pollution includes all forms of unwanted light in the night sky, including glare, light trespass, sky glow and over-lighting. Sky glow is the illumination of the night sky caused by light pollution which accumulates in the sky and can be seen from miles away. Views of the night sky are an important part of the natural environment and excessive light and glare can be visually disruptive to people and nocturnal animal species. While light pollution is less of a problem in Capitola than in many other more urbanized communities, Capitola may be adversely affected not only by light pollution from development within the city's own borders, but also from sky glow associated with development in surrounding cities.

4.1.2 THRESHOLDS OF SIGNIFICANCE

The proposed Plan would result in a significant aesthetic impact if it would:

- 1. Have a substantial adverse effect on a scenic vista.
- 2. Substantially degrade scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway.
- 3. Substantially degrade the existing visual character or quality of the site and its surroundings.
- 4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.3 ENVIRONMENTAL IMPACT DISCUSSION

AES-1 The proposed Plan would not have a substantial adverse effect on a scenic vista.

One of the guiding principles of the proposed Plan includes the protection and enhancement of natural resources including the beaches, creek, ocean, and lagoon which contribute to Capitola's scenic beauty. Future development

AESTHETICS

under the proposed plan would be subject to existing laws and regulations that serve to protect scenic vistas in the Plan Area. The City's zoning ordinance includes provisions that regulate building height, building placement, and establish standards for lot coverage and usable open space. For example, the height of residential structures is limited to 25 feet in low intensity areas. A multifamily building more than 40 feet tall, in the high density areas, would require a conditional use permit whereby City staff would have to issue a discretionary permit and the Planning Commission may impose conditions with respect to location, design and further Architectural and Site review. Additionally, design guidelines contained in Section 17.15.030 of the Municipal Code require that any new single family residence obtain a discretionary design review permit.

The proposed Plan also includes several policies relevant to the protection of scenic vistas. Proposed policies and actions in the Land Use Element include:

- Policy LU-4.7 Planning Projects. Ensure that future planning efforts for non-residential areas carefully consider potential impacts on adjacent residential neighborhoods.
- Action LU-5.1 Design Review. Development applications should be reviewed by a City appointed design review group (e.g., Architectural and Site Review Committee) as part of the approval process to ensure high quality design, harmony with existing community character, and to avoid or minimize impacts to surrounding land uses.
- Policy LU-6.9 Capitola Wharf. Maintain Capitola Wharf as a free-access public fishing pier for the use and enjoyment of Capitola residents and visitors.
- Policy LU-7.3 Scenic Resources. Protect and enhance significant scenic views and resources that contribute to the unique identity and public enjoyment of the Village. Scenic resources include:
 - The general pedestrian-oriented and coastal village character of existing development in the Village.
 - Public and semi-public gathering places, including Esplanade Park, Lawn Way, Capitola Beach, Soquel Creek path, and the Capitola Wharf.
 - Landscaping and streetscape amenities.
 - Historic structures, including contributing structures to Capitola's four National Register Historic Districts and structures listed on the official City of Capitola Historic Structures List.
 - Natural features such as Capitola Beach, Soquel Creek and Lagoon, cliffs and bluffs, and vegetated banks.
- Action LU-7.1 Village Design Guidelines. Update the Village Design Guidelines to reflect current conditions and to encourage new development that will enhance the unique qualities of the Village. These guidelines will help to protect scenic resources, support economic development, and enhance the Village as an area for both residents and visitors. Guidelines will also address increased hazards from climate change, including sea level rise.
- Policy LU-10.1 New Development. Ensure that new development enhances the design character of the district, strengthens existing businesses, and minimizes impacts on adjacent residential neighborhoods. New development should occur in a manner consistent with Figure LU-7.
Compliance with Zoning Code regulations and implementation of the proposed policies would protect scenic vistas to the maximum extent practicable. Associated impacts would be *less than significant*.

Applicable Regulations:

City of Capitola Municipal Code, Chapter 17, Zoning

Significance Before Mitigation: Less than significant.

AES-2 The proposed Plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway.

As described above, there are no State-designated scenic highways in or adjacent to Capitola. The closest Statedesignated scenic highway segment is located approximately 25 miles from the northern edge of the Capitola city limit. The segment of Highway 1 going through Capitola is eligible to be designated as an official scenic highway and the proposed Plan does contemplate the potential development of a hotel on a vacant parcel of land to the south of the highway. However, the property is currently screeened by large trees and there is no view available at this time so subsequent development of a hotel would not result in any loss of scenic resources from the highway. Additionally, development of this hotel would continue to be subject to the Zoning Code, including design review guidelines, development standards and separate environmental review required by the California Environmental Quality Act, if there is the potential for a significant environmental effect including effects related to aesthetics. As such, buildout of the proposed Plan would have *no impact* on scenic resources within a State scenic highway.

Applicable Regulations:

California Scenic Highway Program

The proposed Plan includes two policies related to State scenic highways:

- Policy LU-10.4 Highway 1 Interchange. Encourage Caltrans to incorporate an attractive landscaped gateway element and improved bicycle and pedestrian facilities as part of any significant renovation to the Bay Avenue/Highway 1 interchange.
- Policy LU-12.6 McGregor Property. Utilize the McGregor property (APN 036-341-02at McGregor Drive and Park Avenue) as a location for park and recreational uses and natural spaces to serve residents and visitors. Consider development of the site with visitor accommodations if recreational uses are relocated to a more central site within the city.

Significance Before Mitigation: No Impact.

AES-3 The proposed Plan would not result in substantial degradation of the existing visual character or quality of Capitola or its surroundings.

The proposed Plan would have a significant environmental impact if it would considerably diminish the existing visual character of a neighborhood, district, or area within the Plan Area. For example, the visual character could

AESTHETICS

be diminished through a change in the form and appearance of new development within existing neighborhoods. As more fully described in Chapter 3, Project Description, the proposed Plan could result in as many as 80 additional units throughout the city at buildout in 2035. This represents an increase of approximately 1 percent over the existing number of units. Additionally, zoning provisions of the Municipal Code would apply, ensuring that future residential, commercial and industrial development is consistent with community standards. For example, the City has established a Central Village zone where architectural and site approval must be secured for the establishment and conduct of any principally permitted use. There are also established standards for development in all residential, commercial and industrial zones. The site and use standards associated with these zones are adequate to prevent a significant amount of degradation to the existing visual character.

As described in Chapter 3.0, Project Description, the proposed Plan would result in non-residential development as well. There would be an increase in retail development on 41st Avenue north of Capitola road, but policies in the proposed Plan, including Policy LU- 1.2, encourage quality design and would adequately minimize any potential impacts on views in the area.

The proposed Plan includes several policies relevant to the protection of scenic vistas and the preservation of the character of existing distinct neighborhoods. Relevant proposed policies and actions in the Land Use Element include:

- Policy LU-1.1 Community Character. Ensure that new development maintains and enhances Capitola's neighborly feel, coastal village charm, and welcoming character.
- Policy LU-1.2 Design Quality. Require all new development to feature high quality design that enhances the visual character of the community.
- Action LU-1.1 Design Guidelines. Develop commercial and residential design guidelines that preserve Capitola as a unique coastal community and allow for development which will enhance the long-term economic viability of all of Capitola. Design Guidelines will address topics such as:
 - Unique characteristics and identity of specific residential neighborhoods.
 - Transitions between residential and non-residential land uses.
 - Sustainable building techniques.
 - Pedestrian-friendly commercial and mixed-use building design.
- Goal LU-2. Preserve historic and cultural resources in Capitola.
- Policy LU-2.1 Historic Structures. Encourage the preservation, maintenance, and adaptive reuse of important historic structures in Capitola.
- Policy LU-2.2 Modification Standards. Use the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties as a guide for exterior modifications to identified historic resources.
- Policy LU-2.3 Preservation Incentives. Promote the maintenance, restoration, and rehabilitation of historical resources through the use of Federal Rehabilitation Tax Credits, State incentives including the Mills Act, the California Cultural and Historical Endowment, and the California State Historical Building Code and other incentives as they arise.

- Policy LU-2.4 Public Awareness. Work with the Capitola Museum Curator to encourage public education and awareness of Capitola's history and historical and cultural resources through public outreach, promotional materials, and other similar initiatives.
- Policy LU-3.1 Historic Structures. Encourage the preservation, maintenance, and adaptive reuse of important historic structures in Capitola.
- Policy LU-3.3 Infill Development. Support well-designed infill development on vacant and underutilized sites that enhances Capitola's quality of life.
- Goal LU-4 Protect and enhance the special character of residential neighborhoods.
- Policy LU-4.2 Neighborhood Diversity. Support diverse and inclusive neighborhoods for residents of all ages and backgrounds.
- Policy LU-4.3 Existing Housing. Encourage the maintenance, rehabilitation, and improvement of the existing housing stock in Capitola.
- Policy LU-4.5 Neighborhood Amenities. Provide amenities within neighborhoods that support complete neighborhoods with unique identities.
- Policy LU-4.6 Natural Features. Protect and enhance natural features, including trees, hillsides, habitat, and riparian areas, that contribute to the unique identity of individual neighborhoods.
- Goal LU-5. Ensure that new residential development respects the existing scale, density, and character of neighborhoods.
- Policy LU-5.1 Neighborhood Characteristics. Require new residential development to strengthen and enhance the unique qualities of the neighborhood in which it is located. Residential neighborhood boundaries are identified in Figure LU-1.
- Policy LU-5.2 Development Impacts. Ensure that new commercial and residential development, both within
 and adjacent to neighborhoods, minimizes impacts to residential neighborhoods to the greatest extent
 possible.
- Policy LU-5.3 Mass and Scale. Ensure that the mass, scale and height of new development is compatible with existing homes within residential neighborhoods.
- Policy LU-5.5 Architectural Character. Ensure that the architectural character of new development and substantial remodels complements the unique qualities of the neighborhood in which is it located and the overall coastal village character of Capitola.
- Action LU-5.1 Design Review. "Development applications should be reviewed by a City appointed design review group (Architectural and Site Review Committee) as part of the approval process to ensure high quality design, analyze potential impacts and incorporate mitigations measures.
- Policy LU-7.1 New Development Design. Require all new development to enhance the unique character of the Village.

The above policies, goal and action would help to further reduce an already *less than significant* impact to the existing visual character of the city.

Applicable Regulations:

None.

Significance Before Mitigation: Less than significant.

AES-4 The proposed Plan would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The City of Capitola is located within a moderately urbanized context. Future development under the proposed Plan would create new sources of light and glare. However, regulations in the Municipal Code and policies in the proposed Plan would substantially minimize adverse impacts.

The Capitola Municipal Code contains provisions intended to limit adverse light and glare impacts. Chapter 17.51.090, Lighting, requires that all parking-space lighting be designed so that any glare is directed away from residential properties. Chapter 17.57.110, Lighting and Illumination, requires that all illuminated signs be designed in such a way as to avoid undue glare or reflection of light on private property and surrounding areas. Chapter 17.30.140 Landscaping and lighting requires that all exterior lighting be unobtrusive, harmonious with the local area and constructed or located so that only the area intended is illuminated and off-site glare is fully controlled. Additionally, the location, type and wattage of the exterior lighting must be approved by the community development director prior to the issuance of building permits or the establishment of the use.

The proposed Plan also includes Policy LU- 5.2 Development Impacts.

Policy LU-5.2 Development Impacts. Ensure that new commercial and residential development, both within
and adjacent to neighborhoods, minimizes impacts to residential neighborhoods through incorporation of
design standards and mitigation measures.

This policy would help to further reduce an already *less-than-significant* impact to the existing visual character of the city.

Applicable Regulations:

None.

Significance Before Mitigation: Less than significant.

4.1.4 CUMULATIVE IMPACT DISCUSSION

AES-5 The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to aesthetics.

In combination with other past, present and reasonably foreseeable development, the proposed Plan would result in a less-than-significant impact with respect to aesthetics. The geographic scope of this analysis is taken as the Plan Area which includes land within the city limits as well as land within the sphere of influence (SOI). A cumulative aesthetic impact would be considered significant if, together with past, present, and reasonably foreseeable development within the geographic scope of this analysis, it would result in a substantial adverse effect on a designated scenic vista, the degradation of the view from a scenic highway, exposure of people on- or off-site to substantial light or glare, or if it would result in a substantial degradation of the visual quality or character of the area of cumulative effect.

As described above, there are no State-designated scenic highways in the area of cumulative effect that could be affected by buildout of the proposed Plan. Therefore, cumulative impacts to scenic highways would be *less than significant*. Also, as described above, compliance with applicable regulations from the Capitola Municipal Code and implementation of proposed Plan policies would reduce light and glare impacts to the maximum extent practicable.

With respect to cumulative impacts on the visual character in the area of cumulative effect, compliance with regulations from the Capitola Municipal Code pertaining to building height, massing, form, setbacks, and landscaping would help ensure that future development is compatible with its surroundings. Additionally, implementation of proposed Plan Policies LU-1.1, LU- 1.2, LU- 2.1, LU- 2.2, LU- 2.3, LU- 3.3, LU- 4.2, LU- 4.3, LU- 4.5, LU- 4.6, LU- 5.1, LU- 5.2, LU- 5.3, LU- 5.5, LU- 7.1; Goals LU-2, LU-4, and LU-5; and Actions LU-1.1 and LU-5.1 would further ensure that cumulative impacts to the visual character of the Plan Area are *less than significant*.

Applicable Regulations:

- City of Capitola Municipal Code
- California Scenic Highway Program

Significance Before Mitigation: Less than significant.

4.1.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan update would not result in any significant Plan-level or cumulative impacts to aesthetics and therefore no mitigation measures are required.

AESTHETICS

4.2 AIR QUALITY

This chapter discusses the regulatory framework, existing conditions, and potential air quality impacts associated with the adoption and implementation of the proposed Plan. Issues addressed include short-term construction emissions, long-term operational impacts, and potential impacts on sensitive receptors. Air quality data is provided in Appendix B, Air Quality.

4.2.1 ENVIRONMENTAL SETTING

4.2.1.1 REGULATORY FRAMEWORK

Federal Regulations

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants addressed under the FCAA are ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂) (which is a form of nitrogen oxides $[NO_X]$), sulfur dioxide (SO₂) (which is a form of sulfur oxides $[SO_x]$), particulate matter less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}, respectively) and lead (Pb) (see to Table 4.2-1).

State Regulations

California Air Resources Board

The California Air Resources Board (CARB) administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4.2-1, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS.

Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment. Table 4.2-1 also illustrates the FCAA and CCAA attainment status for the North Central Coast Air Basin (NCCAB), within which the City of Capitola is located.

TABLE 4.2-1 NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

	-	Californiaª		Federal ^b		
Pollutant	Averaging Time	Standard ^c	Attainment Status	Standard ^{c,d}	Attainment Status	
0(0)	1 Hour	0.09 ppm (180 µg/m ³) Nonattainment		N/A ^e	N/A	
Uzone (U ₃)	8 Hour	0.070 ppm (137 μg/m ³)	Nonattainment	0.075 ppm (147 μg/m ³)	Attainment	
Derticulate Matter (DM)	24 Hour	50 µg/m ³ Nonattainment		150 μg/m³	-7,516	
	Annual Arithmetic Mean	20 µg/m³	Nonattainment	N/A ⁵	N/A	
Fine Darticulate Matter (DMar)	24 Hour	No Separate State Standard	Attainment	35 μg/m³	-21,862	
	Annual Arithmetic Mean	12 μg/m³	Attainment	12 µg/m³	Attainment	
Carbon Monovido (CO)	1 Hour	20 ppm (23 μg/m³)	Unclassified	35 ppm (40 μg/m³)	Attainment	
	8 Hour	9.0 ppm (10 μg/m³)	Unclassified	9 ppm (10 μg/m³)	Attainment	
Nitrogen Dioxide (NO2)	1 Hour	0.18 ppm (339 μg/m³)	Attainment	0.100 ppm (188µg/m³)	Attainment	
	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	Attainment	0.053 ppm (100 μg/m ³)	N/A	
	30 Days Average	1.5 μg/m³	Attainment	N/A	-782	
Lead (Pb) ^{g,h}	Calendar Quarter	N/A	Attainment	1.5 μg/m ³ (for certain areas)	Attainment	
	Rolling 3-Month Average	N/A	N/A 0.15 μg/m³		Attainment	
Sulfur Dioxide (SO2)f	1 Hour	0.25 ppm (655 μg/m³)	Attainment	75 ppb (196 μg/m³)	Attainment	
	3 Hour	N/A	N/A	N/A	N/A	
	24 Hour	0.04 ppm (105 μg/m ³) Attainment 0.		0.14 ppm (for certain areas)	Attainment	
	Annual Arithmetic Mean	N/A	N/A	0.030 ppm (for certain areas)	Attainment	
Visibility-Reducing Particles ⁱ	8 Hour (10 am to 6 pm, PST)	Extinction Coefficient = 0.23 km@<70% RH	Unclassified	– No Federal Standards		
Sulfates	24 Hour	25 μg/m³	Attainment			

TABLE 4.2-1 NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

		Californiaª		Federal ^b		
Pollutant	Averaging Time	Standard ^c	Attainment Status	Standard ^{c,d}	Attainment Status	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m ³)	Unclassified			
Vinyl Chlorideg	24 Hour	0.01 ppm (26 μg/m³)	N/A	_		

Notes: ppm = parts per million; μ g/ m³ = micrograms per cubic meter; mg/ m³ = milligrams per cubic meter; km = kilometers; RH = relative humidity; PST = Pacific Standard Time; N/A = not applicable; ppb=parts per billion. a. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current national policies.

c. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

e. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

f. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

g. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

h. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

i. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board and the U.S. Environmental Protection Agency, June 4, 2013.

State Air Toxics Program

The California Air Toxics program regulates Toxic Air Contaminants (TACs). The statewide comprehensive program was established in the early 1980s along with the Toxic Air Contaminant Identification and Control Act, which was approved in 1983 to reduce *exposure* to air toxics. The air toxics program is mandated by Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (H&SC Section 39660 et seq.) and Part 6 (Air Toxics "Hot Spots" Information and Assessment) (H&SC Section 44300 et seq.). CARB works in conjunction with the Office of Environmental Health Hazard Assessment (OEHHA) to identify TACs. Air toxic control measures are adopted to reduce ambient concentrations of the identified TAC to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology for toxics (T-BACT). The program is administered by the CARB. Air quality control agencies must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of TACs include cancer, birth defects, neurological damage, and death.

Local Regulations

Monterey Bay Unified Air Pollution Control District

The Monterey Bay Unified Air Pollution Control District (MBUAPCD) is one of 35 air quality management districts established to protect air quality in California. It is responsible for regulating stationary, indirect, and area sources of pollution within the NCCAB. The MBUAPCD's jurisdiction includes Monterey, Santa Cruz, and San Benito Counties. As previously noted, the NCCAB is a nonattainment area under the CAAQS for PM₁₀ and Ozone. The NCCAB is in attainment of all NAAQS.

Attainment of the PM_{2.5} CAAQS is addressed in the District's *Senate Bill 656 Implementation Plan*. This plan describes the greater vulnerability of coastal locations within the NCCAB to PM_{2.5} standards violations, due largely to the contribution from sea salt. It focuses primarily on controlling particulate sources related to fugitive dust and smoke related to combustion, but also addresses NO_X- and ROG-related particulate formation. Consistent with the requirements of SB 656, and with the difficulty in estimating future ambient concentrations of particulate matter substantially influenced by fugitive dust sources (even disregarding unusual burn events), this plan concentrates on identification of and implementation scheduling for available particulate matter emission control measures. Implementation of these measures is currently underway.

CARB has established a state, health-based, air quality standard for ozone. Under the CCAA, areas not in compliance with this standard must prepare an ozone reduction plan. The 1991 AQMP for the Monterey Bay Area was the first plan prepared in response to the CCAA of 1998 that established specific planning requirements to meet the ozone standard. The CCAA requires that the AQMP be updated every 3 years.

The *Triennial Plan Revision 2009 – 2011* is MBUAPCD's 2012 AQMP and was adopted by the MBUAPCD Board of Directors on April 17, 2013. The 2012 AQMP documents the MBUAPCD's progress toward attaining the state

ozone standard and is the update to the 2008 AQMP. Consistency with the AQMP is based on whether a project is consistent with regional development and transportation plans.

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 Plan are discussed below:

- Rule 200: Permits Required
- Rule 203: Application
- Rule 206: Standards for Granting Applications
- Rule 207: Review of New or Modified Sources
- Rule 214: Breakdown Conditions
- Rule 216: Permit Requirements for Wastewater and Sewage Treatment Facilities
- Rule 400: Visible Emissions
- Rule 402: Nuisances
- Rule 403: Particulate Matter
- Rule 432: New Source Performance Standards Subpart O, Sewage Treatment Plants
- Rule 439: Building Removals
- Rule 424: National Emissions Standards for Hazardous Air Pollutants (NESHAPS)
- Rule 1000: Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants

The MBUAPCD adopted the CEQA Air Quality Guidelines in October 1995 (revised February 2008), which are intended to facilitate the review and evaluation of air quality impacts for projects subject to CEQA. The advisory document provides lead agencies, consultants and project proponents with standardized procedures for assessing potential air quality impacts associated with a proposed project and prepare the environmental air quality section of environmental review documents.

Capitola General Plan

Air quality is managed locally by the MBUAPCD and is referenced in the Conservation Element of the 1989 Capitola General Plan. It will be replaced as the Open Space and Conservation Element as part of the proposed Plan. Specifics of the proposed goals, policies, and actions regarding air quality are discussed below in Section 4.2.3, Environmental Impact Discussion.

4.2.1.2 EXISTING CONDITIONS

North Central Coast Air Basin

Geography

The City of Capitola is located in the NCCAB, which consists of Monterey, Santa Cruz, and San Benito counties. The NCCAB is situated with the Diablo Range as its northeast boundary. Along with the southern portion of the Santa Cruz Mountains, this range forms the Santa Clara Valley. The Valley extends into the northeastern tip of the NCCAB. Farther south, the Santa Clara Valley transitions into the San Benito Valley, which runs northwest-southeast and has the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at the northwest end to King City at the southeast end. The northwest portion of the NCCAB is dominated by the Santa Cruz Mountains.

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. The climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or persistent west and northwest winds. The extent and severity of the air pollution problem in the NCCAB is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the NCCAB.

Climate

A semi-permanent high pressure cell in the eastern Pacific Ocean is the basic controlling factor in the climate of the NCCAB. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the Pacific High pressure cell forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air aloft can inhibit vertical air movement.

Hot temperatures in the inland valleys warm the ground and intensify the onshore airflow during the afternoon and evening. In the fall, the surface winds weaken and the marine layer becomes shallow and eventually dissipates. The airflow is occasionally reversed, creating weak offshore winds. The stationary air mass held in place by the Pacific High pressure cell can allow pollutants to build up over a period of days. These conditions also occur when north or east winds cause pollutant transport from the San Francisco Bay area or the Central Valley into the NCCAB. In the winter, the Pacific High moves south and has a lesser influence on the NCCAB. Northwest winds are still dominant in winter, but easterly winds are more frequent. Air quality usually remains good in the winter and early spring due to the absence of deep, persistent inversions and occasional storms. The average annual summer temperature in the project area is 74.5 degrees Fahrenheit (° F) with August and September as the hottest months. The average annual winter temperature is 42.7° F with December and January as the coldest time of the year. The average rainfall for the area is approximately 31.0 inches. Annual rainfall is lowest in the coastal plain and inland valleys, higher in the foothills and highest in the mountains. Because of the moderating marine influence, which decreases with distance from the ocean, monthly and annual spreads between temperatures are greatest inland and smallest at the coast.

In the City of Capitola, the climate is typically warm during summer when temperatures tend to be in the 70's and cool during winter when temperatures tend to be in the 50's. The warmest month of the year is August with an average maximum temperature of 70° F, while the coldest month of the year is December with an average minimum temperature of 47° F. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 23° F, and moderate during winter with an average difference of 24° F.

The annual average precipitation in Capitola is 31.55 inches. Rainfall is heavier in the winter months with the wettest month of the year in February at an average rainfall of 6.44 inches.¹

Local Ambient Air Quality

Criteria Air Pollutants

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. Air quality monitoring stations usually measure pollutant concentrations 10 feet aboveground level; therefore, air quality is often referred to in terms of ground-level concentrations. The closest monitoring station to the project area is the Santa Cruz – Soquel Avenue Monitoring Station, located approximately 0.25 miles from the city boundary. However, this station only monitors O₃, PM₁₀, and PM_{2.5}. Other monitoring stations within the vicinity which monitor CO, and NO₂, include the Davenport and Salinas #3 Monitoring Station, approximately 13 miles from the city boundary. Local air quality data from 2010 to 2012 is provided in Table 4.2-2. This table lists the monitored maximum concentrations and number of exceedances of federal/State air quality standards for each year.

Carbon Monoxide (CO)

Carmon monixide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide. Exposure to high levels of carbon monoxide can slow reflexes and cause drowsiness, and result in death in confined spaces at very high concentrations.

Ozone (O₃)

Ozone (O₃) occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone) layer extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" ozone is a photochemical pollutant, and needs VOCs, NO_X and sunlight to form. Therefore, VOCs and NO_X are ozone precursors. To reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

¹ The Weather Channel, Average Weather for Capitola, CA, Accessed September 11, 2013. http://www.weather.com/ weather/wxclimatology/monthly/graph/USCA0179

-	Standards (Allow	Days (Samples) State/Federal			
Pollutant	California	Federal	Year	Maximum Concentration ^a	Standards was Exceeded
0(0.)	0.00		2010	0.077ppm	0/0
Uzone (U ₃)	0.09 ppm	Not Applicable	2011	0.071	0/0
(1-110ul) ³	ioi i noui		2012	0.071	0/0
$O_{7000}(O_{2})$			2010	0.059 ppm	0/0
$(0. \text{ hours})^{\text{b}}$	for 9 hours	for 9 hours	2011	0.064	0/0
(0-110ul) ³	101 6 110015		2012	0.052	0/0
Carbon Manavida			2010	1.30 ppm	0/0
(CO) (1-hour) ^d	for 1 hour	for 1 hour	2011	1.40	0/0
			2012	6.40	0/0
Carbon Manavida	an Manavida 0.0 nnm		2010	0.64 ppm	0/0
(CO) (9 hours) for 9 hours		9.0 ppm	2011	NM	NM/NM
			2012	NM	NM/NM
Nitrogon Diavida	0.19 ppm	0.100 ppm	2010	28.0 ppm	0/0
(NO ₂) (1 hour)(III Ogen Dioxide 0.18 ppm		2011	NM	NM/NM
(NO2) (1-NOUI)*			2012	NM	NM/NM
Sulfur Diovido (SO.)	0.04 ppm	0.14 ppm	2010	NA	NA
(24 hour)	for 24 hours	0.14 ppill for 24 bours	2011	NA	NA
(24-11001)	TOT 24 HOULS	101 24 110013	2012	NA	NA
Darticulata Mattar	EQa/m3	$1E0 \dots a/m^3$	2010	31.0 μg/m³	0/0
	50 μg/m ³	150 µg/m ³	2011	21.0	NM/NM
(PIVI10) (24-nour) ^{b,e,i} for 24 hours		TOF 24 HOURS	2012	NM	NM/NM
Fine Particulate Matter	Na Conorata Chat-		2010	32.8 μg/m³	NM/0
(PM _{2.5})	NU Separate State	35µg/m ³	2011	17.2	NM/0
(24-hour) ^{b,f}	Stanuaru	ior 24 nours	2012	13.8	NM/0

TABLE 4.2-2 LOCAL AMBIENT AIR QUALITY LEVELS

Notes:

ppm = parts per million PM₁₀ = particulate matter 10 microns in diameter or less

 μ g/m³ = micrograms per cubic meter PM_{2.5} = particulate matter 2.5 microns in diameter or less

NM = Not Measured NA = Not Applicable

a. Maximum concentrations are measured over the same period as the California standard.

b. Santa Cruz – Soquel Avenue Monitoring Station is located at 2544 Soquel Avenue, Santa Cruz, California 95062.

c. Davenport Monitoring Station is located at Marine View and Center Drive, Davenport, California 95006.

d. Salinas #3 Monitoring Station is located at 855 E Laurel Drive, Salinas, California 93901.

e. PM₁₀ exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.

f. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Source: California Air Resources Board, Aerometric Data Analysis and Measurement System (ADAM) Air Quality Data Statistics, http://www.arb.ca.gov/adam/welcome.html, accessed on September 10, 2013. While ozone in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone (in the troposphere) can adversely affect the human respiratory system and other tissues. Ozone is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease are considered the most susceptible to the harmful effects of ozone. Short-term exposure (lasting for a few hours) to ozone can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO₂)

Nitrogen Dioxide (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3 , and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO₂ can irritate and damage the lungs, decrease lung function and lower resistance to respiratory infections such as influenza. Individuals with asthma and/or chronic obstructive pulmonary disease may have a greater susceptibility to harmful effects of NO₂ exposure. Short-term exposure to NO₂ may increase resistance to air flow and airway contraction. Continued or frequent exposure to NO₂ concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Volatile Organic Compounds (VOCs) and Reactive Organic Gases (ROG)

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including Reactive Organic Gases (ROG) and Volatile Organic Compounds (VOCs). Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Course Particulate Matter (PM₁₀)

Course Particulate Matter (PM_{10}) refers to suspended particulate matter, which is smaller than ten microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (SB 25).

Fine Particulate Matter (PM_{2.5})

Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less) (PM_{2.5}), both State and federal PM_{2.5} standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997,

the EPA announced new PM_{2.5} standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the NCCAB as a nonattainment area for federal PM_{2.5} standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging. Individuals with pre-existing respiratory and/or cardiovascular disease, the elderly and children may be more susceptible to adverse effects of particulate matter exposure. Exposure to varying levels of PM_{2.5} has been associated with increased mortality due to cardiovascular or respiratory diseases, reduction in life-span and hospital admissions for acute respiratory conditions. In children, PM_{2.5} exposure can lead to school absences, decreased respiratory function and increased medication use in those with asthma. Long-term particulate matter exposure has also been connected to reduced lung function growth in children.

Primary Sources of Emissions

Air pollutants within the City of Capitola are generated by stationary and mobile sources. These emission sources are described below.

Stationary and Point Sources

Stationary source emissions refer to those that originate from a single place or object that does not move around. Typical stationary sources include buildings, power plants, mines, smokestacks, vents, incinerators, and other facilities using industrial combustion processes. Stationary point sources have one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial projects.

The City of Capitola contains several point sources of air pollutants. A variety of pollutants, including reactive hydrocarbons from activities such as spray painting, are generated by smaller commercial and industrial uses. Industrial uses are generally located in the northern portion of the city. While each use might not represent a significant source of air pollution, the cumulative effects of development within the city could be significant. Although the number and nature of future additional air pollutant point sources is presently unknown, each individual source would be required to comply with rules and regulations established by the MBUAPCD. These regulations require that sources of hazardous materials or criteria pollutants above threshold levels obtain permits prior to operation of the facility.

Mobile Sources

Mobile sources of emissions refer to those moving objects that release pollution and include cars, trucks, busses, planes, trains, motorcycles, and gasoline-powered lawn mowers. Mobile source emissions may be classified as onor off-road sources. Increased traffic volumes within the City of Capitola could contribute to regional incremental

emissions of NO_X , VOC, CO, SO_X , and PM_{10} . The following is a listing of emissions that typically emanate from vehicular sources:

- Vehicle running exhaust (VOC, CO, NO_X, SO_X, and PM₁₀);
- Vehicle tire wear particulates (PM₁₀);
- Vehicle brake wear particulates (PM₁₀);
- Vehicle variable starts (VOC, CO, NO_X);
- Vehicle hot soaks (VOC);
- Vehicle diurnal (VOC);
- Vehicle resting losses (VOC); and
- Vehicle evaporative running losses (VOC).

On-Road Sources

These sources are considered to be a combination of emissions from automobiles, trucks, buses and indirect sources. Major sources of mobile emissions in the city include the local and regional roadway network. Highway 1 is the major regional route to and through Capitola. Additional transportation corridors that serve the city include 41st Avenue, Bay Avenue, Park Avenue, and Capitola Road which connect Capitola to the surrounding areas in the region. In addition, the Santa Cruz Metro buses serve as the public transit system for the region. One of its major transit stops is located at Capitola Mall within the major commercial district in the city.

Indirect on-road sources of emissions are those that by themselves may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or by consuming energy. Examples of these indirect sources include an office complex or commercial center that generates trips and consumes energy resources.

Off-Road Sources

Off-road sources include aircraft, trains, construction equipment, and landscape equipment. Primary sources of aircraft traffic within the city are from the Watsonville Municipal Airport, located outside of the City's Sphere of Influence. As a result, aircraft flying over the city can contribute off-road emissions. There are currently no active rail services within the city. In addition, construction activities are typically temporary and intermittent and can be located at various locations within the city. Landscape equipment emissions would occur more regularly and would occur throughout the city, especially within residential areas.

Emissions from off-road sources include NO_X and diesel particulate matter, which contribute to public health problems. The EPA has set emission standards for the engines used in most construction, agricultural, and industrial equipment. The EPA has adopted off-road diesel fuel requirements to decrease the allowable levels of sulfur, which can damage advanced emission control technologies. Additionally in 2007, CARB adopted a regulation to reduce diesel particulate matter and NO_X emissions from in-use off-road heavy-duty diesel vehicles in California.

Emissions Inventory

Santa Cruz County Emissions Inventory

Table 4.2-3 summarizes the emissions of criteria air pollutants within Santa Cruz County for various source categories in 2010. According to Santa Cruz County's emissions inventory, vehicular sources are the largest contributor to the estimated annual average air pollutant levels for ROG, CO, NO_X, SO_X, PM₁₀, and PM_{2.5}.

City of Capitola Emissions Inventory

Table 4.2-4 summarizes the emissions of criteria air pollutants within the city for area, energy, mobile, waste, and water categories. The emissions inventory is based on existing land use information and traffic behavior. The data used to calculate the emissions inventory for criteria pollutants is based on the City's Geographic Information Systems (GIS) data. According to the emissions inventory, mobile sources are the largest contributor to the estimated annual average air pollutant levels.

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than are the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, churches, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The majority of land uses located within the city that are sensitive to air pollution include residential uses (particularly those in the vicinity of Highway 1), schools, hospitals, churches, and parks.

4.2.2 THRESHOLDS OF SIGNIFICANCE

Under CEQA, the MBUAPCD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. The MBUAPCD reviews projects to ensure that they would not: 1) cause or contribute to any new violation of any air quality standard; 2) increase the frequency or severity of any existing violation of any air quality standard; or 3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

The MBUAPCD's CEQA Air Quality Guidelines provides significance thresholds for both construction and operation of projects within the MBUAPCD jurisdictional boundaries. If the MBUAPCD thresholds are exceeded, a potentially significant impact could result.

_	Estimated Annual Average Emissions (Tons/Year) ^b					
Source Type/Category	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
Stationary Sources						
Fuel Combustion	0.9	1.1	2.5	0.0	0.1	0.1
Waste Disposal	0.6	0.2	0.0	0.0	0.0	0.0
Cleaning and Surface Coating	1.6					
Petroleum Production Marketing	0.5					
Industrial Processes	0.1	14.2	2.8	1.3	1.2	0.5
Subtotal (Stationary Sources) ^a	3.7	15.5	5.3	1.4	1.3	0.7
Areawide Sources						
Solvent Evaporation	4.2					
Miscellaneous Processes	1.2	15.7	0.8	0.1	12.5	3.5
Subtotal (Areawide Sources) ¹	5.4	15.7	0.8	0.1	12.5	3.5
Mobile Sources						
On-Road Mobile Sources	5.8	54.6	7.9	0.0	0.4	0.2
Other Mobile Sources	2.3	17.7	11.0	3.4	0.8	0.7
Subtotal (Mobile Sources) ¹	8.1	72.3	18.9	3.4	1.2	1.0
Total for Santa Cruz County	17.2	103.4	24.9	4.9	15.0	5.1

TABLE 4.2-32010 Estimated Emissions Inventory for Santa Cruz County

a. Totals may be slightly off due to rounding. Totals are derived from the inventory model, and are not specifically added by category.

b. This total excludes emissions from natural sources (i.e., biogenic, geogenic, and wildfire sources).

Source: California Air Resources Board, 2009 Almanac Emission Projection Data, accessed at: http://www.arb.ca.gov/app/emsinv/emssumcat.php.

Construction Emissions Thresholds

The MBUAPCD has established screening thresholds analyzing PM_{10} emissions. A construction site with minimal earthmoving activity would have potentially significant PM_{10} impacts when active construction covers 8.1 acres or more per day. A construction site with earthmoving activity would have potentially significant PM_{10} impacts when active construction covers 2.2 acres or more per day. Projects that exceed these screening thresholds would potentially exceed PM_{10} emissions of 82 pounds per day. The MBUAPCD requires larger projects to quantify their emissions and identify applicable mitigation measures for projects that exceed the quantitative threshold of 82 pounds per day. It should be noted that the MBUAPCD does not have construction thresholds for other criteria pollutants. Implementation of construction equipment best management practices would ensure that construction emission of other criteria pollutants would not have a significant impact.

TABLE 4.2-4 Summary of Estimated Existing Emissions Inventory for the City of Capitola

Estimated Annual Average Emissions (Tons/Year) ^a					
ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
408.64	5.21	469.98	0.17	60.33	60.33
0.80	6.96	3.72	0.04	0.55	0.55
324.41	338.92	1552.72	1.77	117.86	34.39
				0.00	0.00
				0.00	0.00
733.85	351.09	2,026.41	1.98	178.75	95.28
	ROG 408.64 0.80 324.41 733.85	Estimated An ROG NOx 408.64 5.21 0.80 6.96 324.41 338.92 733.85 351.09	ROG NOx CO 408.64 5.21 469.98 0.80 6.96 3.72 324.41 338.92 1552.72 -7 733.85 351.09 2,026.41	Estimated Annual Average Emissions (Terminal Averag	Estimated Annual Average Emissions (Tons/Year) ^a ROG NOx CO SOx PM10 408.64 5.21 469.98 0.17 60.33 0.80 6.96 3.72 0.04 0.55 324.41 338.92 1552.72 1.77 117.86 0.00 0.00 0.00 0.00 0.00 0.00

a. Emissions estimates calculated using CalEEMod.

b. Emissions estimates calculated using the land use categories/intensities depicted in Section 3.0, Project Description.

Source: RBF Consulting, 2013.

Localized Carbon Monoxide Emissions

According to the MBUAPCD, the following would represent a potentially significant impact to roadway intersections or segments:

- Intersections or road segments that operate at Level of Service (LOS) D or better that would operate at LOS E or F with the project's traffic;
- Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 or more with the project's traffic;
- Intersections or road segments that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic;
- Un-signalized intersections which operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic (this criterion is based on the turning movement with the worst reserve capacity); or
- The project would generate substantial heavy-duty truck traffic, substantial traffic along urban street canyons, or substantial traffic near a major stationary source of CO.

Odors

According to the MBUAPCD, if the proposed project would emit pollutants associated with objectionable odors in substantial concentrations, this could result in significant impacts if odors would cause injury, nuisance, or annoyance to a considerable number of persons or endanger the comfort, health, or safety of the public.

Operational Air Emission Thresholds

MBUAPCD's thresholds of significance for operational impacts, specific to the NCCAB, are shown in Table 4.2-5. The issues presented in the Initial Study Environmental Checklist (Appendix G of the CEQA Guidelines) have been utilized as thresholds of significance in this Section. Accordingly, air quality impacts resulting from the implementation of the proposed Plan may be considered significant if they would result in the following:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Based on these standards and significance thresholds and criteria, the proposed Plan's effects have been categorized as either "no impact," a "less-than-significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less-than significant-level through the application of mitigation, it is categorized as a significant unavoidable impact.

4.2.3 ENVIRONMENTAL IMPACT DISCUSSION

AIR-1 Citywide construction activities under the proposed Plan would result in a considerable increase of criteria pollutants, and thus, could violate air quality standards.

Implementation of the proposed Plan would result in new emissions being generated from construction activities. The thresholds of significance recommended by the MBUAPCD for construction emissions were developed for individual development projects. Construction-related emissions are described as short-term or temporary in duration and have the potential to represent a significant impact with respect to air quality. Implementation of the proposed Plan is dependent on individual housing decisions, employment opportunities, provision of services for housing and supporting commercial uses, land use decisions by the City and other public agencies, regional transportation planning decisions, the decisions of financial institutions related to development projects, and other similar factors.

Buildout of the proposed Plan would be reviewed in relation to residential uses, revenue-generating employment uses, housing affordability, provision and financing of infrastructure and public facilities, mechanisms for funding of ongoing service needs and overall coordination of improvements with future development projects. Subsequent implementation of future projects and plans would continue to define specific phasing at a detailed

Criteria Pollutant Daily Thresholds (lbs)^a Volatile Organic Compounds (VOC) 137 (direct + indirect) Oxides of Nitrogen (NO_x) 137 (direct + indirect) Particulate Matter (PM₁₀₎ 82 (on-site)b AAQS exceeded along unpaved roads (off-site) LOS at intersection/road segment degrades from D or better to E or F or V/C ratio at intersection/road segment at LOS E or F increases by 0.05 or more or Carbon Monoxide (CO) delay at intersection at LOS E or F increases by 10 seconds or more or reserve capacity at unsignalized intersection at LOS E or F decreases by 50 or more³ 550 (direct)c 150 (direct)^b SO_x as SO₂

TABLE 4.2-5OPERATIONAL AIR EMISSIONS THRESHOLDS

a. Projects that emit other criteria pollutant emissions would have a significant impact if emissions would cause or substantially contribute to the violation of State or national AAQS. Criteria pollutant emissions could also have a significant impact if they would alter air movement, moisture, temperature, climate, or create objectionable odors in substantial concentrations. When estimating project emissions, local or project-specific conditions should be considered.

b. The MBUAPCD's 82 lbs/day operational phase threshold of significance applies only to on-site emissions and project-related exceedances along unpaved roads. These impacts are generally less than significant. On large development projects, almost all travel is on paved roads (0 percent) unpaved, and entrained road dust from vehicular travel can exceed the significance threshold. MBUAPCD approved dispersion modeling can be used to refute (or validate) a determination of significance if modeling shows that emissions would not cause or substantially contribute to an exceedance of State and national AAQS.

c. Modeling should be undertaken to determine if the project would cause or substantially contribute (550 lb/day) to exceedance of CO AAQS. If not, the project would not have a significant impact.

Source: Monterey Bay Unified Air Pollution Control District (MBUAPCD), California Environmental Quality Act (CEQA), Air Quality Guidelines, February 2008.

level and be reviewed by the City to ensure that development occurs in a logical manner consistent with policies in the proposed Plan, and that additional environmental review is conducted under CEQA, as needed.

Construction-related activities associated with implementation of the proposed Plan would result in emissions of criteria air pollutants and precursors from site preparation (e.g., demolition, excavation, grading, and clearing); exhaust from off-road equipment, material delivery trucks, and worker commute vehicles; vehicle travel on roads; and other miscellaneous activities (e.g., building construction, asphalt paving, application of architectural coatings, and trenching for utility installation). Construction activities occurring under the proposed Plan could also generate airborne odors associated with the operation of construction vehicles and the application of architectural coatings. However, these odors are not generally considered offensive. Emissions would typically be isolated to the immediate vicinity of the construction site and activity. As such, these odors would not affect a substantial number of people and impacts would be limited to people living and working near the source. Due to the types of odors that would occur in the city and limited exposure, implementation of the proposed Plan would not create construction-related objectionable odors affecting a substantial number of people; thus, impacts would be less than significant in this regard.

Because the proposed Plan identifies future land uses and does not contain specific development proposals, construction-related emissions that may occur at any one time are speculative and cannot be accurately determined at this stage of the planning process. Assuming relatively robust economic conditions over the next 20 years, construction activities would occur throughout the city, but the rate of development cannot be anticipated. Construction-related emissions could lead to the violation of an applicable air quality standard or contribute

substantially to an existing or projected air quality violation. Therefore, future development projects will comply with the following Mitigation Measures AQ-1 and AQ-2, proposed Plan goals, policies and actions including Policy OSC-3.3 to ensure best management practices are used, and require construction activities to comply with MBUAPCD rules and regulations. The proposed Plan includes the following goals, policies, and actions that are intended to further minimize this risk:

- Goal OSC-3 Support atmospheric conditions that are clean and healthful, provide maximum visibility, and meet air quality standards.
- Policy OSC-3.1 Air Quality Management Plans. Cooperate with regional agencies—including the Monterey Bay Unified Air Pollution Control District, the Santa Cruz County Regional Transportation Commission, and the Association of Monterey Bay Area Governments—in developing and implementing air quality management plans.
- Policy OSC-3.2 Development Design. Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by reducing vehicle trips (e.g., projects with access to transit and projects that provide walking and bicycling amenities), as well as by being energy-efficient.
- Policy OSC-3.3Best Management Practices. Encourage development projects to implement best management practices that reduce air pollutant emissions associated with the construction and operation of the project.
- Policy OSC-3.6 Sensitive Receptors. Ensure that residential development or other projects with sensitive receptors that are proposed within 500 feet of a stationary or mobile air pollutant source do not create any substantial health risks.
- Policy OSC-3.7 Roadway Materials. Encourage the use of roadway materials that minimize particulate emissions.
- Policy SN-4.4 Green Building. Encourage green building practices that reduce potentially hazardous construction materials.

Applicable Regulations:

- California Air Resources Board
- Monterey Bay Unified Air Pollution Control District
- City of Capitola Municipal Code, Title 15 Buildings and Construction

Significance Before Mitigation: Significant.

AIR-2 Implementation of the proposed Plan could result in an overall increase in mobile and stationary source emissions within the City, which could exceed Monterey Bay Unified Air Pollution Control District air quality standards.

Regional area- and mobile-source emissions were modeled using the California Emissions Estimator Model (CalEEMod), which is designed to estimate emissions for land use development projects. CalEEMod allows land use data entries that include project location specifics and trip generation rates. CalEEMod also accounts for emissions associated with electricity, natural gas, and water consumption, as well as mobile-source emissions

associated with vehicle trip generation and emissions from waste generation. Regional emissions were modeled based on proposed land use types, the increase in trip generation, and default settings and parameters attributable to the analysis period and site location. Table 4.2-6 presents the criteria air pollutant emissions within the city for area, energy, mobile, waste, and water source categories at buildout. According to the emissions inventory, area and mobile sources are the largest contributors to the estimated annual average air pollutant levels.

The City's stationary source emissions primarily consist of industrial, residential, and commercial uses. Indirect sources consist of the direct consumption of electricity usage, as well as indirect energy usage associated with water consumption. Mobile source emissions are produced by each trip generating land use within the city (e.g., residential, schools, retail, office, industrial.).

As described in Chapter 3.0, Project Description, buildout of the proposed plan could result in as many as 10,198 residents, 5,614 housing units, and 7,370 jobs by 2035. Although the City anticipates future growth, overall emissions are anticipated to be lower than existing conditions for ROG, NO_X, and CO (refer to Table 4.2-4). Mobile source ROG, NO_X, and CO emissions would decrease despite a projected increase in vehicle trips. This can be attributed to improved vehicle emissions standards, improved fuel efficiency, and a newer model year vehicle fleet at buildout. It should be noted that mobile source SO_X, PM₁₀, and PM_{2.5} emissions would increase from existing conditions. However, area and energy source emissions are expected to increase from existing conditions.

The thresholds of significance that have been recommended by the MBUAPCD were established for individual development projects and do not apply to cumulative development or multiple projects. Air quality impacts would be regional and not confined to the Capitola city limits. The destinations of motor vehicles, which are the primary contributors to air pollution, vary widely and cross many jurisdictional boundaries. The proposed Plan establishes the City's open space, conservation, land use and mobility goals by providing improved local and regional transit services as well as a connected, balanced, and integrated transportation system of bicycle and pedestrian networks. Such alternatives to automotive transportation can be greatly utilized to reduce mobile source emissions. Future site-specific development proposals would be evaluated for potential air emissions once development details have been determined and are available. Individual projects may not result in significant air quality emissions. Although individual development projects have the potential to exceed MBUAPCD thresholds, the proposed Plan goals and policies would help to reduce the significance of impacts from these individual development projects.

Development projects allowed under the proposed Plan would increase regional pollutants over current conditions, specifically PM₁₀ and PM_{2.5}. However, ozone precursor pollutants, reactive organic compounds, and nitrogen oxides would decrease, due to improvements in vehicular technology for mobile source emissions. CEQA review of individual development projects would include an evaluation to determine whether potential air pollutant emissions generated from growth could result in a significant impact to air quality. The significance level of these impacts would be determined during review and appropriate mitigation measures would be developed. However, proposed development and associated mobile and stationary source air quality impacts would result in impacts that would be significant and unavoidable. Future development projects will comply with the following proposed Plan goals, policies, and actions, including Policy OSC-3.3 to ensure best management practices are used, and require operation activities to comply with MBUAPCD rules and regulations.

	Estimated Annual Average Emissions (Tons/Year) ^a					
Source Type/Categoryb	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
Area (hearths, consumer products, architectural coatings, and landscape equipment)	415.70	5.24	474.17	0.17	61.02	61.02
Energy (building electricity and natural gas use)	0.83	7.26	3.95	0.05	0.58	0.58
Mobile (vehicle emissions)	151.60	118.74	643.64	1.96	126.44	35.55
Waste (emissions associated with landfill disposal)					0.00	0.00
Water (electricity associated with transport and treatment of water)					0.00	0.00
Total for the City of Capitola	568.14	131.24	1,121.76	2.17	188.04	97.15

TABLE 4.2-6 Summary of 2035 Estimated Existing Emissions Inventory for the City of Capitola

a. Emissions estimates calculated using CalEEMod.

b. Emissions estimates calculated using the land use categories/intensities depicted in Section 3.0, Project Description.

Source: RBF Consulting, 2013.

Furthermore, the proposed Plan includes the following goals, policies, and actions that are intended to further minimize this risk:

- Policy OSC-3.3 Best Management Practices. Encourage development projects to implement best management practices that reduce air pollutant emissions associated with the construction and operation of the project.
- Goal OSC-4 Promote increased use of renewable energy sources and alternative fuels.
- Policy OSC-4.1 On-Site Energy Generation. Encourage on-site energy generation in Capitola, including wind and solar, provided that significant adverse environmental impacts associated with such facilities can be mitigated.
- Policy OSC-4.2 Grid-Neutral Development. Encourage grid-neutral development that produces at least as much electricity as it consumes in a year.
- Policy OSC-4.3 Photovoltaic Panels. Encourage the installation of photovoltaic panels on new homes and businesses.
- Policy OSC-4.4 Solar Heaters. Encourage the use of solar water and pool heaters.
- Policy OSC-4.5 Solar Access. Protect existing development from the loss of solar access where possible.
- Policy OSC-4.6 Passive Solar Design. Encourage passive solar design in new development, in which window placement and building materials help to collect and maintain solar heat in the winter and reflect solar heat in the summer.
- Goal OSC-11 Reduce solid waste originating in Capitola.

- Policy OSC-11.1 Solid Waste Diversion. Work with Green Waste Recovery to increase community diversion of solid waste to 60 percent by 2020.
- Policy OSC-11.2 City Diversion Rate. Increase the City government waste diversion rate to 90 percent by expanding reduction, recycling, and composting programs; practicing reuse; conducting waste audits; and promoting the purchase of environmentally-friendly office products.
- Policy OSC-11.3 Demolition Material Recycling. Continue to require mandatory recycling of building demolition materials.
- Policy OSC-11.4 Building Design. Encourage building designs that minimize waste and consumption in construction projects.
- Policy OSC-11.5 Recycling and Composting Space. Require adequate and convenient space for recycling and composting in all buildings.
- Policy OSC-11.6 Reusable Goods. Encourage the use of reusable, returnable, recyclable, and repairable goods through incentives, educational displays and activities, and City purchasing policies and practices.
- Policy OSC-11.7 Consumption/Waste Reduction. Encourage the reduction of waste and consumption from household and business activities in Capitola through public outreach and education activities.
- Action OSC-11.1 Diversion Incentives. 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.
- Action OSC-11.3 Recycled Asphalt Pavement. Conduct a study to consider requiring the use of recycled asphalt pavement (RAP) for commercial and community parking lots. Based on the results of this study, amend the Municipal Code, as appropriate.
- Goal LU-3. Promote sustainable land use patterns that encourage transportation alternatives and reduce greenhouse gas emissions.
- Policy LU-3.1 Land Use Diversity. Encourage the most diverse mixture of land use that the market will support within the mixed use and commercial land use designations.
- Policy LU-3.2 Walkability. Encourage development and land uses that enhance a pedestrian-oriented environment.
- Policy LU-3.4 Transit and Pedestrian Access. Encourage new residential and employment development in areas well-served by transit and within walking distance of stores, services, and public facilities.
- Policy LU-3.5 Pedestrian and Bicycle Connections. Require new development to provide for pedestrian and bicycle connections between residential and commercial areas.
- Policy LU-3.7 Regional Outlook. Support land uses in Capitola that contribute to a more sustainable regional development pattern in Santa Cruz the Monterey Bay area. Consider the benefits and impacts of new development in Capitola to neighboring jurisdictions and the region as a whole.
- Goal MO-1. Provide a balanced multi-modal transportation system that enhances mobility in a sustainable manner.

- Policy MO-1.1 Responsive Transportation Services. Promote multi-modal transportation services and facilities that are responsive to the needs of residents, businesses, and visitors.
- Policy MO-1.2 Reduced Vehicle Trips. Encourage transportation strategies that reduce vehicular trips and air pollution, and promote energy conservation.
- Policy MO-1.3 Regional Collaboration. Support regional efforts to increase alternatives to infrastructure, which reduce single occupant vehicle trips, conserve energy, and reduce air pollution.
- Policy MO-1.4 Highway 1 Capacity. Support regional efforts to increase the capacity of Highway 1 to accommodate future forecasted traffic demands, including the proposed Highway 1 high-occupancy vehicle (HOV) project.
- Action MO-1.2 Regional Plan Implementation. Participate with Santa Cruz County Regional Transportation Commission (RTC), the Association of Monterey Bay Area Governments (AMBAG), and Santa Cruz County to create and implement programs that coordinate the multi-modal transportation needs and requirements across jurisdictions, including but not limited to the Regional Transportation Plan, the Metropolitan Transportation Plan, and the Monterey Bay Sanctuary Scenic Trail Master Plan. (Responsibility: Community Development, Public Works)
- Action MO-1.3 Highway 1 Crossings. Coordinate with Caltrans to create improvements to the Highway 1 over- and under-passes in Capitola including roadway configuration, signal timing, and pedestrian/bike safety and access. (Responsibility: Community Development, Public Works)
- Goal MO-2. Provide for "Complete Streets" that serve all modes of transportation, including vehicles, public transit, bicyclists, and pedestrians.
- Policy MO-2.1 Complete Streets. Support projects, programs, policies, and regulations to maintain a balanced multi-modal transportation network that meets the needs of all users of local roadways in a manner that is suitable to the scale and character of Capitola.
- Policy MO-2.3 Community Context. Support Complete Street improvements that fit within the context of the community and address unique conditions within Capitola.
- Policy MO-2.4 Maintenance. Accommodate bicycling, walking, and public transit as a routine part of the City's maintenance of roadways in Capitola.
- Policy MO-2.5 Existing Rights-of-Way. Support opportunities to repurpose existing rights-of-way or create new rights-of-way to enhance connectivity for pedestrians, bicyclists, and transit.
- Policy MO-2.6 Non-Motorized Connectivity. Focus Complete Street improvements on primary connections from residential areas to schools, parks and recreation uses, civic uses, and community-serving commercial areas.
- Action MO-2.1 Complete Street Standards. Develop a set of minimum and preferred Complete Streets standards that can be referenced when retrofitting existing roadways. (Responsibility: Community Development, Public Works)

- Action MO-2.2 Capital Improvement Program. Incorporate Complete Streets projects as part of the City's annual Capital Improvements Program update. (Responsibility: Community Development, Public Works, Finance)
- Action MO-2.3 Dedications. Establish by local ordinance the ability to require a dedication or irrevocable offer of dedication of real property for streets, alleys, and additional land as may be necessary to provide bicycle paths and/or local transit facilities, consistent with the provisions of the Subdivision Map Act or as otherwise allowed under State law. (Responsibility: Community Development, Public Works)
- Action MO-3.2 Signal Timing. Update and maintain coordinated signal timing on traffic corridors, particularly on 41st Avenue. (Responsibility: Public Works)
- Policy MO-6.5 Transportation Alternatives. Encourage visitors to enter the Village using non-automotive modes of transportation, including by walking, biking, and taking public transit.
- Policy MO-7.1 Regional Cooperation. Support regional efforts to improve the availability, affordability, reliability, and convenience of public transportation service in Capitola.
- Policy MO-7.2 Transit-Friendly Development. Encourage new development to be located and designed to support increased use of public transportation.
- Policy MO-7.6 Rail Service. Work with regional partners to explore the establishment of passenger rail service on the Santa Cruz Branch rail line corridor.
- Action MO-7.1 Improved Transit Coverage. Work cooperatively with Santa Cruz METRO to continually
 assess and improve the coverage of transit service in Capitola by providing additional routes and increased
 service frequency. (Responsibility: Public Works)
- Policy MO-8.1 Bicycle Transportation Plan. Construct and maintain bikeways consistent with the Capitola Bicycle Transportation Plan.
- Policy MO-8.2 Regional System. Ensure that the bikeways in Capitola are well integrated with existing and proposed regional bikeways in Santa Cruz County.
- Action MO-8.3 Bicycle Connections. Actively participate in efforts to implement new bicycle pathways in Capitola identified in the Monterey Bay Sanctuary Scenic Trail Plan.
- Action MO-8.5 Highway 1 Interchanges. Work with Caltrans to ensure that any future modifications to Highway 1 interchanges in Capitola improve safety and convenience for bicyclists.

Applicable Regulations:

- California Air Resources Board
- Monterey Bay Unified Air Pollution Control District
- City of Capitola Municipal Code, Title 15 Buildings and Construction

Significance Before Mitigation: Significant.

AIR-3 Implementation of the proposed Plan could result in an overall increase in odors within the City.

Potential operational airborne odors could be created by cooking activities associated with the residential and commercial (i.e., food service) uses within the city. These odors would be similar to existing residential and food service uses throughout the city and would be confined to the immediate vicinity of the new buildings. Restaurants are also typically required to provide ventilation systems that avoid substantial adverse odor impacts.

The proposed Plan accommodates the development of residential, commercial, industrial, public/religious, and open space/parks/recreation uses. These uses are not identified by the MBUAPCD as significant odor generators. Additionally, the policies included as part of the proposed Plan (described above) would reduce mobile and stationary source emissions and odors associated with diesel fuel by focusing on land use patterns that improve air quality, reduce air pollution from stationary sources, and encourage/enable more sustainable transit behavior. Consequently, implementation of the proposed Plan would not create operational-related objectionable odors affecting a substantial number of people within the city. Impacts would be less than significant in this regard. The proposed Plan includes the following goals, policies, and actions that are intended to further minimize this risk:

Policy SN-4.3 Sensitive Receptors. Prohibit land uses and development that emit obnoxious odors, particulates, light glare, or other environmentally sensitive contaminants from being located near schools, community centers, senior homes, and other sensitive receptors.

Applicable Regulations:

- Monterey Bay Unified Air Pollution Control District
- City of Capitola Municipal Code, Chapter 15.28 Excavation and Grading

Significance Before Mitigation: Less than significant.

AIR-4 Implementation of the Capitola General Plan could result in an overall increase in localized and carbon monoxide hotspot emissions within the city, which could exceed Monterey Bay Unified Air Pollution Control District air quality standards.

Localized Emissions

Implementation of the proposed Plan would not directly result in increased population or new development. However, future development under the proposed Plan would primarily result in mobile sources of emissions associated with vehicle trips, as well as project-level construction related emissions, as discussed above. Sensitive receptors within the City of Capitola include residential uses, schools, and libraries.

Sensitive receptors could be potentially subject to stationary and/or vehicular emissions and pollutants such as toxic air contaminants from stationary sources, carbon monoxide (CO) emissions from vehicular traffic, and/or diesel emissions from construction-related emissions. As a result, implementation of the proposed Plan may result in increased exposure of sensitive land uses to localized concentrations of TACs that would exceed MBUAPCD's recommended significance thresholds. However, the proposed Plan would be required to comply with MBUAPCD

rules and regulations, including Rule 1000: Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants. Additionally, any potential source of stationary emissions would be subject to MBUAPCD review and approval to ensure emissions do not create or substantially contribute to air quality violations. Stationary sources with potential toxic air contaminants would also be subject to MBUAPCD review and approval to ensure that there are no significant impacts to adjacent residents, sensitive receptors and/or other land uses.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels (e.g., adversely affect residents, school children, hospital patients, the elderly). To identify CO hotspots, the MBUAPCD requires a CO hotspot analysis when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.05 (5 percent) for any intersection with an existing level of service (LOS) D or worse. In addition, CO hotspot modeling is recommended when intersection or road segments that operate at LOS D or better would operate at LOS E or F with the proposed project's traffic. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections. Typically, the LOS at an intersection producing a hot spot is at D or worse during the peak hour.

The NCCAB is designated as an unclassified attainment area for State and federal CO standards. There has been a decline in CO emissions even though vehicle miles traveled (VMT) on urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in VMT over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997, while VMT increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

As discussed in Section 4.13, Traffic and Transportation, five intersections would operate at unacceptable LOS in 2035 with buildout of the proposed Plan. All other study intersections would continue to operate at acceptable levels of service under the proposed Plan buildout conditions in 2035 if no improvements are made. This would potentially contribute to localized carbon monoxide emissions. However, the City has identified improvements for these intersections that would improve the LOS and delays to acceptable levels. The proposed Plan includes various Actions and Policies to maintain and improve Citywide LOS. For example, Policy MO-3.1 requires the City to maintain the established level of service standard. Action MO-3.2 would update and maintain signal timing, while Action MO-3-3 requires traffic monitoring to prevent deterioration of the level of service standard. Furthermore, as indicated in Table 4.6-3, local ambient levels of CO have not exceeded state or federal standards in the past 3 years. With implementation of the proposed Plan policies and actions, impacts would be less than significant in this regard.

Furthermore, the proposed Plan includes the following goals, policies, and actions that are intended to further minimize this risk:

 Goal OSC-3. Support atmospheric conditions that are clean and healthful, provide maximum visibility, and meet air quality standards.

- Policy OSC-3.5 Health Risk Assessments. Use the results of the Health Risk Assessments required by the California Air Toxics "Hot Spots" Act to establish appropriate land use buffer zones around any new sources of toxic air pollutants that may pose substantial health risks
- Policy MO-3.1 Arterial Streets. Actively discourage diversion of traffic to local streets by maintaining maximum capacity on arterial streets and locating high traffic-generating uses on arterial streets.
- Policy MO-3.2 Street Widening. Whenever possible, implement solutions that improve the efficiency of the arterial system without major widening.
- Policy MO-3.3 Level of Service Standard. Continue to maintain the established level of service C or better at intersections throughout Capitola, with the exception of the Village area and 41st Avenue.
- Action MO-3.1 Neighborhood Traffic. Monitor traffic volumes and vehicle speeds on local streets in residential neighborhoods. Consider installing traffic calming measures if cut-through traffic increases as a result of adjacent development. (Responsibility: Public Works)
- Action MO-3.2 Signal Timing. Update and maintain coordinated signal timing on traffic corridors, particularly on 41st Avenue. (Responsibility: Public Works)
- Action MO-3.3 Traffic Monitoring. Monitor traffic on a regular basis to ensure that planned improvements are scheduled prior to deterioration of level of service below the desired standard. (Responsibility: Public Works)

Applicable Regulations:

- California Air Resources Board
- State Air Toxics Program
- Monterey Bay Unified Air Pollution Control District
- City of Capitola Municipal Code, Title 10, Vehicles and Traffic

Development of the project would not result in an overall increase in carbon monoxide hotspot emissions within the city, which would not exceed the MBUAPCD air quality standards and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

AIR-5 The proposed Plan may conflict with or hinder implementation of the Association of Monterey Bay Area Government's regional comprehensive plan guidelines and the Monterey Bay Unified Air Pollution Control District Air Quality Management Plan.

The *Triennial Plan Revision 2009 – 2011* is the MBUAPCD's 2012 AQMP and was adopted by the MBUAPCD Board of Directors on April 17, 2013. The 2012 AQMP documents the MBUAPCD's progress toward attaining the state ozone standard and is the update to the 2008 AQMP. Consistency with the AQMP is determined based on a project's consistency with other regional development and transportation plans upon which the assumptions in the AQMP is based. Consistency determinations with the AQMP are used by the MBUAPCD to address a project's cumulative impact on regional air quality.

As described in Section 4.10, Population and Housing, the projected population growth associated with the proposed Plan would result in 110 additional residents (or 1.1 percent) over AMBAG projections at buildout in 2035. Since this growth will be incremental, meaning it will take place gradually over the 20-year time frame of the Plan, this amount of growth is not a substantial increase. Therefore, the proposed Plan would not induce substantial population growth within the project area.

Metropolitan Transportation Plan

The Association of Monterey Bay Area Governments (AMBAG) is the Metropolitan Planning Organization (MPO) for the Monterey Bay Area. AMBAG must coordinate with San Benito County Council of Governments, the Santa Cruz County Regional Transportation Commission, and the Transportation Agency for Monterey County to collectively develop and maintain a Metropolitan Transportation Plan (MTP). The MTP is the federally mandated transportation plan for the Monterey Bay Area that is intended to identify a list of transportation projects for the next 25 years that will enhance regional transportation as well as reduce greenhouse gas emissions (GHGs). A new MTP is set to be adopted in June of 2014 to incorporate the requirements of Senate Bill 375 (SB 375).

SB 375 was passed in 2008 and requires the 18 MPOs in California to reduce per capita VMT and GHGs through coordinated a coordinated land use and transportation plan called the Sustainable Communities Strategy (SCS). AMBAG's MTP will incorporate and serve as the SCS. The SCS will identify a preferred growth scenario for land use and transportation investments in the region. The SCS will not regulate land use or supersede local land use authority, and is being developed in coordination with local jurisdictions.

The SCS for the AMBAG region is under development and is anticipated to be adopted in June 2014 to incorporate requirements under SB 375. The MTP will not directly regulate local land use nor supersede local land use authority. Therefore, upon adoption and implementation of the proposed General Plan, other Capitola regulations, such as the Zoning Ordinance, would need to be updated to ensure consistency. Because the General Plan is the overriding planning document for the city, the impact would be less than significant.

Regional Housing Needs Assessment

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the process of updating local housing elements of the General Plan. AMBAG has prepared a RHNA which quantifies the need for housing within each jurisdiction during specified planning periods (current planning period is January 1, 2006 to June 30, 2014). The RHNA allows communities to anticipate growth so that the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promotes transportation mobility, and addresses social equity and fair share housing needs. Existing and future housing needs are measured in the RHNA. Existing needs are determined by examination of key variables of the most recent Census, and future needs are determined by the forecasted growth of households in a community.

As described in Chapter 3.0, Project Description, buildout of the proposed plan could result in as many as 10,198 residents, 5,614 housing units, and 7,370 jobs by 2035. This represents 60 more housing units and 110 additional residents over AMBAG projections at buildout in 2035 or an additional 1.1 percent over AMBAG projections. Particularly considering that this growth will be incremental, meaning that it would take place gradually over the

20-year time frame of the plan, this amount of growth is not a substantial increase. Furthermore, the proposed Plan includes the following goals, policies, and actions that are intended to further minimize this risk:

- Policy OSC-1.4 Regional Partnerships. Continue to work with neighboring cities, Santa Cruz County, the Association of Monterey Bay Area Governments (AMBAG), and other governmental agencies to promote sustainability throughout the region.
- Policy OSC-2.5 Consistency with Other Directives. Monitor federal, State, and regional policies and directives relating to climate change, and adjust City policies and programs as appropriate to maintain consistency.
- Policy OSC-3.1 Air Quality Management Plans. Cooperate with regional agencies—including the Monterey Bay Unified Air Pollution Control District, the Santa Cruz County Regional Transportation Commission, and the Association of Monterey Bay Area Governments—in developing and implementing air quality management plans.

Applicable Regulations:

- California Air Resources Board
- Monterey Bay Unified Air Pollution Control District

Development of the project would not conflict with or hinder implementation of AMBAG's regional comprehensive plan guidelines of the MBUAPCD's 2012 AQMP. Therefore, impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

4.2.4 CUMULATIVE IMPACT DISCUSSION

AIR-6 Regional air quality emissions resulting from operational buildout of the Capitola General Plan could impact regional air quality levels on a cumulatively considerable basis.

Construction

MBUAPCD thresholds for criteria pollutants are established for individual development projects, and it is assumed that some of the projects that would be implemented under the proposed Plan could individually exceed the MBUAPCD thresholds. Based on the programmatic-level construction analysis above, construction-related emissions associated with future development projects in the City, Sphere of Influence, and surrounding cities may be "cumulatively considerable," even with implementation of the proposed Plan goals and policies. Construction of future development projects under the proposed Plan would be required to comply with the applicable MBUAPCD rules and regulations as well as other emissions control measures; refer to Mitigation Measures AQ-1a and AQ-1b. These measures call for the maintenance of construction equipment, the use of non-polluting and non-toxic building equipment, and minimizing fugitive dust. With the compliance of the proposed Plan's goals, policies, and actions, and applicable rules, regulations and emissions control measures, this cumulative impact would reduce impacts to be less than significant.

Regional Air Quality Impacts

With regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is nonattainment, this is considered to be a potentially significant cumulative impact, as the NCCAB is considered to be a nonattainment area for O₃ and PM₁₀. An emissions inventory for the City in year 2035 was presented in Table 4.2-6. This inventory includes the existing emissions within the City as well as emissions associated with the anticipated future development. As a result, Table 4.2-6 represents the cumulative condition within the City for 2035. With regard to the contribution of the proposed Plan, the MBUAPCD has recommended methods to determine the cumulative significance of new land use projects. The MBUAPCD's methods are based on performance standards and emission reduction targets necessary to attain federal and State air quality standards as predicted in the 2012 AQMP. As previously discussed, the contribution of daily operational emissions from the growth associated with implementation of the proposed Plan could be cumulatively considerable despite the implementation of the proposed Plan could be cumulative impact is considered to be significant and unavoidable.

Odor Impacts

Cumulative development would not have a potentially significant impact in terms of the creation of objectionable odors affecting a substantial number of people. Thus, this is considered to be a less than significant cumulative impact. Development anticipated within the City of Capitola would include residential and commercial uses, and could include restaurants. Odors resulting from the construction of projects that would occur with implementation of the proposed Plan are not likely to affect a substantial number of people, since construction activities occur in a limited area and do not usually emit odors that are considered offensive. Other odor impacts resulting from these projects are also not expected to affect a substantial amount of people, as restaurants are typically required to have ventilation systems that avoid substantial adverse odor impacts. Cumulative odor impacts would thus be less than significant.

Goals and policies contained in the proposed Plan would serve to provide an efficient roadway system, support multimodal transportation, improve transit service in the City, encourage walking, biking, and use of transit, and reduce air pollution from stationary sources. The City also plans to increase participation in alternative modes of travel and reduce trip length and rates. As stated above, the growth anticipated with the proposed Plan is consistent with the regional planning documents. However, due to the magnitude of development and associated mobile and stationary source air emissions, impacts in this regard would be significant and unavoidable. Therefore, future development projects will comply with the following proposed Plan goals, policies and actions including Policy OSC-3.3 to ensure best management practices are used, and require construction and operation activities to comply with MBUAPCD rules and regulations. The proposed Plan includes the following policies that are intended to further minimize this risk:

Policy OSC-3.3 Best Management Practices. Encourage development projects to implement best management practices that reduce air pollutant emissions associated with the construction and operation of the project.

Applicable Regulations:

- California Air Resources Board
- Monterey Bay Unified Air Pollution Control District

Significance Before Mitigation: Less than significant cumulative impact for construction air quality and odor impacts. Development of the project would generate regional air quality emissions resulting from operational buildout of the proposed Plan and could impact regional operational air quality levels on a cumulatively considerable basis therefore impacts in this regard would be considered *significant and unavoidable*.

4.2.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

AIR-1 Citywide construction activities under the proposed Plan would result in a considerable increase of criteria pollutants, and thus, could violate air quality standards.

Mitigation Measure AIR-1a: Prior to issuance of any Grading Permit, the Community Development Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with MBUAPCD CEQA Air Quality Guidelines, the City shall limit areas of active disturbance to no more than 2.2 acres per day for initial site preparation activities that involve extensive earth moving activities (grubbing, excavation, rough grading), or 8.1 acres per day for activities that involve minimal earth moving (e.g., finish grading) during all phases of construction activities. If future development projects within the proposed Plan require that grading and excavation exceed those acreages, the City shall implement the following fugitive dust control measures per MBUAPCD CEQA Air Quality Guidelines:

- Water all active construction areas at least twice daily;
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.);
- Limit traffic speeds on unpaved roads to 15 mph;
- Install appropriate best management practices or other erosion control measures to prevent silt runoff to public roadways;
- Replant vegetation in disturbed areas as quickly as possible;
- Install wheel washers or track-out devices for all exiting trucks and equipment leaving the site;
- Limit the area subject to excavation, grading and other construction activity at any one time;

- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints (the person shall respond to complaints and take corrective action within 48 hours);
- Ensure that the phone number of MBUAPCD is visible to the public for compliance with Rule 402 (Nuisance); and
- Comply with MBUAPCD Rule 403 (Particulate Matter) regarding concentration, process weight and individual particles requirements. Discharge from any source of particulate matter shall not exceed of 0.15 grain per standard dry cubic foot of exhaust gas. Discharge in any one hour from any source of particulate matter shall not exceed the amount shown in Rule 403 Particulate Matter Table 1. Additionally, emissions from any heat transfer, incinerator, or metal salvage operation of particles in sufficient number to cause damage to property, which particles are of sufficient size and nature to be visible individually as particles on property other than that under the control of the person responsible for the emission, shall not be permitted.

Mitigation Measure AIR-1b: Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that all off-road construction vehicles/equipment greater than 100 horsepower that will be used on site for more than one week shall: 1) be manufactured during or after 1996, and 2) shall meet the NO_X emissions standard of 6.9 grams per brake-horsepower hour. Alternatively, the project shall implement a combination of the following emission reduction measures on some or all of the above described vehicles and equipment:

- Use alternative fuels (such as biodiesel blends);
- Require diesel particulate matter filters on equipment;
- Require diesel oxidation catalyst on equipment;
- Require General and Industry-Specific Visible Emission limitations for abrasive blasting, drinking water systems, gas turbines, pile drivers and federally regulated industries for compliance with Rule 400 (Visible Emissions);
- Install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors);
- Enforce state required idle restrictions (e.g., post signs). Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks may keep their engines running continuously as long as they were on-site and staged away from residential areas;
- Properly tune and maintain equipment; and
- Stage large diesel-powered equipment at least 100 feet from any active land uses (e.g., residences).

Significance After Mitigation: Less than significant.
AIR QUALITY

AIR-2 Implementation of the proposed Plan could result in an overall increase in mobile and stationary source emissions within the City, which could exceed Monterey Bay Unified Air Pollution Control District air quality standards.

Mitigation Measure AIR-2: There is no mitigation measure available to reduce this impact to a less-thansignificant level.

Significance After Mitigation: Significant and unavoidable.

AIR-6 Regional air quality emissions resulting from operational buildout of the Capitola General Plan could impact regional air quality levels on a cumulatively considerable basis.

Mitigation Measure AIR-6: Implementation of the proposed Plan could generate regional air quality emissions resulting from operational buildout of the proposed Plan and could impact regional operational air quality levels on a cumulatively considerable basis; therefore impacts in this regard would be considered significant and unavoidable. There is no mitigation measure available to reduce this impact to a less-than-significant level.

Significance After Mitigation: Significant and unavoidable.

AIR QUALITY

This chapter discusses the regulatory framework, existing conditions, and impacts of the proposed Plan related to biological resources.

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 REGULATORY FRAMEWORK

This section describes the existing federal, State, regional, and local regulations that provide for the protection and management of sensitive biological resources.

Federal Regulations

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and National Oceanic Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) is responsible for implementation of the Federal Endangered Species Act (FESA) (16 U.S.C. Section 1531 *et seq.*). The Act protects fish, wildlife, and plant species that are listed as threatened or endangered, and their habitats. "Endangered" species, subspecies, or distinct population segments are those that are in danger of extinction through all or a significant portion of their range, and "threatened" species, subspecies, or distinct population segments are likely to become endangered in the near future.

Section 7 of the FESA mandates that all federal agencies consult with USFWS and NOAA Fisheries if they determine that a proposed project may affect a listed species or its habitat. The purpose of consultation with USFWS and NOAA Fisheries is to ensure that the federal agencies' actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species.

Section 9 of the FESA prohibits the take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. "Take" is defined as an action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with regard to take at the time of listing.

Under Section 9 of the FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the unlawful removal and reduction or possession, or malicious damage or destruction, of any endangered plant from federal land. Section 9 prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in nonfederal areas in knowing violation of any state law or in the course of criminal trespass. Candidate species and species that are proposed or under petition for listing receive no protection under Section 9.

Federal Clean Water Act

The Federal Clean Water Act (FCWA) is administered by the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps). The Corps is responsible for regulating the discharge of fill material into waters of the U.S., including lakes, rivers, streams, and their tributaries, as well as wetlands. Wetlands are defined for regulatory purposes as areas "inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances support a prevalence of vegetation typically adapted for life in saturated soil conditions."

The discharge of dredged or fill material into waters of the U.S. is subject to permitting under Section 404 (Discharges of Dredge or Fill Material). Section 401 (Certification) specifies additional requirements for permit review, particularly at the state level. Project proponents must obtain a permit from the Corps for all discharges of dredged or fill material into waters of the U.S., including wetlands, before proceeding with a proposed action. Corps permits must be certified by the State Water Resources Control Board (Board) in order to be valid. Thus, certification from the Board should be requested at the same time an application is filed with the Corps.

Certification from the California Regional Water Quality Control Board (RWQCB) is also required when a proposed activity may result in discharge into navigable waters, pursuant to Section 401 of the Clean Water Act and EPA 404(b)(1) Guidelines.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) governs the taking, killing, possession, transportation and importation of migratory birds, their eggs, and nests. Moreover, the MBTA prohibits the take, possession, import, exports, transport, selling, purchase, barter, or offering for sale, purchase or barter, any migratory bird, their eggs, parts, nests, except as authorized under a valid permit (50 CFR 21.11).

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Section 2050 et seq.) establishes State policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would affect a species that is on the federal and State lists, compliance with the FESA satisfies the CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species that is only State listed, the project proponent must apply for a take permit under Section 2081(b).

California Fish and Game Code

Under the California Fish and Game Code, the CDFW provides protection from "take" for a variety of species. The CDFW also protects streams, water bodies, and riparian corridors through the Streambed Alteration Agreement process under Section 1601 to 1606 of the California Fish and Game Code. The California Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the Department, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement. CDFW's jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover. California Fish and Game Code Sections 1600 through 1616 regulate development to avoid and mitigate impacts or modification to rivers, streams, or lakes. Modification is defined as diverting or obstructing the natural flow of, or substantially changing or using any material from the bed, channel, or bank of, any river, stream, or lake. California Fish and Game Code Section 3503.5 prohibits "take," possession, or destruction of any raptor (bird of prey species in the orders Falconiformes and Strigiformes), including their nests or eggs. Violations of this law include destruction of active raptor nests as a result of tree removal and disturbance to nesting pairs by nearby human activity that causes nest abandonment and reproductive failure.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 prohibits importation of rare and endangered plants into California, "take" of rare and endangered plants, and sale of rare and endangered plants. The CESA defers to the California Native Plant Protection Act, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to California Environmental Quality Act (CEQA). In this case, plants listed as rare under the California Native Plant Protection Act are not protected under the CESA but rather under CEQA. California Native Plant Society (CNPS) is a non-governmental conservation organization that has developed a list of plants of special concern in California. The following explains the designations for each plant species:

- List 1A Considered to be extinct
- List 1B Considered rare, threatened, or endangered in California and elsewhere
- List 2 Considered rare, threatened, or endangered in California, but is more common elsewhere
- List 3 CNPS lacks necessary information to determine if it should be assigned to a list
- List 4 Limited distribution in California

Marine Life Protection Act

The Marine Life Protection Act (MLPA) requires reevaluation and redesign of California's marine protected areas for increased coherence and effectiveness in protecting the State's marine life and habitats, marine ecosystems, and marine natural heritage, and additionally to improve recreational, educational, and study opportunities provided by marine ecosystems subject to minimal human disturbance. The MLPA also requires the best readily available science be used in the redesign process, as well as the advice and assistance of scientists, resource managers, experts, stakeholders, and members of the public.

Porter-Cologne Water Quality Control Act

This Act authorizes the RWQCB to regulate the discharge of waste that could affect the quality of the State's waters. Projects that do not require a federal permit may still require review and approval by the RWQCB. The RWQCB focuses on ensuring that projects do not adversely affect the "beneficial uses" associated with waters of the State. In most cases, the RWQCB requires the integration of water quality control measures into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction Best Management Practices (BMPs).

California Environmental Quality Act

In addition to specific federal and State statutes for the protection of threatened and endangered species, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species may be considered rare or endangered if it can be shown that the species meets certain specified criteria. Modeled after definitions in the FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals, these criteria are given in CEQA Guidelines Section 15380(b). The effect of Section 15380(b) is to require public agencies to undertake reviews to determine if projects would result in significant effects on species not listed by either the USFWS or CDFW (i.e., candidate species). Through this process, agencies are provided with the authority to protect additional species from the potential impacts of a project until the appropriate government agencies have an opportunity to designate the species as protected, if deemed appropriate.

Local Regulations

Monterey Bay National Marine Sanctuary – Management Plan

In 1992, the Monterey Bay National Marine Sanctuary (MBNMS) was designated as a federally protected marine area offshore of California's central coast, comprised of 276 miles of shoreline and 5,322 square miles of ocean.¹ The MBNMS stretches from about Marin County at its northern most point to Cambria at its southern boundary. In November of 2008, the Office of National Marine Sanctuaries released the final Monterey Bay National Marine Sanctuary Management Plan (Management Plan). The Management Plan is a revision of the original plan adopted in 1992, the same year as the MBNMS designation.² The Management Plan establishes goals, policies, and regulations aimed at protecting the ocean and its resources within the boundaries of the National Marine Sanctuary, which includes coastal development activities.³ Coastal development is regulated through action plans, which further establish action plan strategies for coastal development activities such as coastal armoring, desalination, harbors and dredge disposal, and submerged cables.⁴

¹ Monterey Bay National Marine Sanctuary, 2008, Final Management Plan, page 13.

² Monterey Bay National Marine Sanctuary, 2008, Final Management Plan, page 13.

³ Monterey Bay National Marine Sanctuary, 2008, *Final Management Plan*, page 55.

⁴ Monterey Bay National Marine Sanctuary, 2008, Final Management Plan, page 60.

Capitola Local Coastal Program

In 1976 the State legislature passed the California Coastal Act of 1976, transferring most of the authority vested in the California Coastal Commission by the Coastal Act to local governments through adoption and certification of "Local Coastal Programs." Local Coastal Programs (LCP) include a local government's land use plan, zoning district maps, and other implementing actions that when taken together, meet the requirements of and implement the provisions and policies of the Coastal Act. An LCP reflects the coastal issues and concerns of the local jurisdiction and must be consistent with statewide policies of the Coastal Act. When certified, the LCP becomes legally binding on the City.

Capitola's Local Coastal Land Use Plan is a comprehensive long-term plan for land use and physical development within the City's coastal zone. Prior to the issuance of any permit for development within the coastal zone, the City of Capitola is required to prepare necessary findings that the development meets the standards set forth in all applicable Land Use policies.

Relevant Coastal Act policies pertaining to biological resources include, but are not limited to, the following:

- Section 30230. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.
- Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.
- Section 30240. a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas; b) development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.
- Policy VI-1. It shall be the policy of the City of Capitola to take measures within its purview to preserve and improve the quality of the waters of Monterey Bay, to support Marine Habitats, public recreation, and commercial pursuits consistent with sound resource management principles.
- Policy VI-2. It shall be the policy of the City of Capitola to protect, maintain and, where possible, enhance the environmentally sensitive and locally unique habitats within its coastal zone, including dedication and/or acquisition of scenic conservation easements for protection of the natural environment. All developments approved by the City within or adjacent to these areas must be found to be protective of the long-term maintenances of these habitats.

- Policy VI-3. It shall be the policy of the City of Capitola to maintain the maximum amount of native vegetation along Soquel Creek and other riparian areas, and to strongly support the California Department of Fish and Game in requiring a minimum flow that will support a healthy riparian habitat and permanent fishing resource in Soquel Creek.
- Policy VI-4. Parking lot and stream drains, and storm water run-off culverts shall be improved by installing energy dissipators and sand traps or other types of grease/sediment traps in conjunction with new development or intensification of use.
- Policy VI-5. The City shall, as a condition of new development, ensure that run-off does not significantly impact the water quality of Capitola's creeks and wetlands through increased sedimentation, biochemical degradation or thermal pollution.
- Policy VI-6. The City shall enact regulations to control erosion and runoff.
- Policy VI-7. The City should coordinate with Santa Cruz County and AMBAG to investigate and implement sound watershed management methods for the lands within Capitola to: a) maintain adequate stream flow for fish, wildlife, and riparian vegetation; b) control contaminated urban run-off, and c) encourage water conservation.
- Policy VI-8. The City shall maintain and, as feasible, continue to enhance the habitat values of Soquel Creek through the use of the Automatic Review Zone for the Soquel Creek Riparian Corridor and Lagoon (as designated on Map VI-1). When considering or granting a permit in this area, the City shall give special consideration to the environmental sensitivity of this area, including dedication of scenic conservation easements. In addition, the City shall encourage the use of appropriate native local riparian vegetation.
- Policy VI-9. The City shall maintain the habitat values of Noble Gulch where existing natural riparian corridors exist.
- Policy VI-10. a) It shall be the policy of the City of Capitola to protect the winter resting sites of the Monarch Butterfly in the eucalyptus groves of Escalona Gulch, New Brighton Gulch, and Soquel Creek as designated on Map VI-2 by requiring detailed analysis of the impacts of development on the habitat; b) it is the goal of the City to preserve the monarch butterfly overwintering site in the area known as Escalona Gulch.

Capitola Municipal Code

Chapter 12.12, Community Tree and Forest Management, of the City of Capitola Municipal Code (Capitola Municipal Code), establishes regulations relating to the protection, planting, maintenance, removal, and replacement of trees, and sets forth the process for development of a comprehensive plan for the planting and maintenance of a sustained community forest within the City.

Capitola Municipal Code Sections 12.12.090 and 12.12.100, establish the heritage tree historic context and tree list and nomination process. Heritage trees are defined as any locally significant, historic, scenic and/or mature tree growing on public or private property, that is listed on the city's adopted heritage tree list that is supported by the property owner and by the city council. Section 12.12.130 establishes tree protection, management, and maintenance requirements.

Capitola Municipal Code Chapter 17.95, Environmentally Sensitive Habitats, establishes regulations for the development of properties within environmentally sensitive habitats. General regulations are provided, as well as specific requirements pertaining to Soquel Creek and lagoon, Soquel Creek riparian corridor, Noble Gulch riparian corridor, Tannery Gulch riparian corridor, and Soquel Creek – Escalona Gulch Monarch butterfly habitat.

4.3.1.2 EXISTING CONDITIONS

Natural Resource Areas

The city contains the following natural resource areas; refer to Figure 4.3-1.

Monterey Bay

The southern portion of the city is fronted by the Monterey Bay waters. Monterey Bay is a complex ecosystem that supports a variety of different habitat types including kelp forests, tidepools, subtidal, intertidal, and deepwater areas. The waters of the Bay are inhabited by a wide range of marine organisms such as fish, invertebrates, kelp, sea birds and marine mammals. Many of these organisms are harvested for recreational and commercial purposes. Monterey Bay has high value due to its scenic, recreational, educational, commercial, and biological resources. One of the most significant resources in Capitola's coastal waters is the area of kelp beds. The kelp beds are a center of marine activity; the habitat for hundreds of species including the endangered sea otter.

Another important habitat associated with Monterey Bay is the waterbird foraging area below Depot Hill. The shoreline between the rock groin of Capitola Beach and the mouth of Tannery Gulch is frequented by numerous shorebirds during low tide. Many other waterbirds, including cormorants, gulls and the endangered California Brown Pelican, commonly forage immediately offshore in the waters adjacent to the kelp beds.

Soquel Creek and Lagoon

Soquel Creek runs through the middle of the city into the Monterey Bay. The creek is a year-round water source for the wildlife in the adjoining riparian corridor as well as an important wetland habitat. The creek is dammed up at the river mouth, both naturally and deliberately, during much of the year. The lagoon area of the creek is the only significant habitat for migratory non-marine waterbirds within the Capitola city limits. Duck, grebes, gulls, spotted sandpipers and black -crowned night herons are among the birds that can be seen at the lagoon during the winter months. In addition, the Creek and Lagoon supports steelhead with resident trout and non-sport species and southwestern pond turtles. Significant problems in recent years regarding Soquel Creek have been decreased downstream water flows and a decline in water quality.

Riparian Corridors

Riparian corridors in the city include the woodland along the west side of Soquel Creek from the Stockton Avenue Bridge to the Highway One overpass (Soquel Creek Riparian corridor), the Noble Gulch Riparian corridor, and the Tannery Gulch Riparian corridor. Woodland in these areas include Black Cottonwood trees, California Sycamores, Coast Live Oaks, Eucalyptus, Monterey Pine, Acacia and Willow trees. These corridors provide important natural



Source: City of Capitola, 2010.

Figure 4.3-1 Natural Resources resources, visual relief, and support for numerous wildlife and native vegetation. Trees within Capitola, such as Coast Live Oak, Bluegum, and Coast Redwood may provide suitable nesting habitat for several raptor species, which are afforded protection by the MBTA of 1918 and CEQA.

Monarch Butterfly Habitats

Monarch butterfly habitats are located along Soquel Creek and in the Escalona Gulch area. These areas provide overwintering sites for the migrating Monarch butterfly and are considered environmentally sensitive habitat areas (ESHA). Each fall, the Monarchs arrive to spend the winter on the branches of the eucalyptus trees. The orientation of the groves to wind and sun, the size and density of the trees, and the quiet, undisturbed setting are among the factors that make these sites among the few in the County suitable for the butterflies. Both Escalona Gulch and Soquel Creek Monarch butterfly groves lie within areas designated for preservation as open space.

Just outside the city limits between New Brighton Road and New Brighton State Park campground is another overwintering site for Monarch butterflies. This grove is partly on State Park property and partly on private residential parcels. Butterfly populations have fluctuated, perhaps due to the removal of some large windward trees sheltering the grove and trimming of lower hanging branches on some of the trees.

Sensitive and/or Special-Status Species

A query of the California Natural Diversity Database (CNDDB) was conducted on October 18, 2013 to identify special-status plant or wildlife species previously recorded in the Plan Area. The CNDDB lists historical and recently recorded occurrences of both special-status plant and wildlife species. The potential for special-status species to occur in the City is based on the proximity of the recorded occurrences listed in the CNDDB, geographic ranges of all special-status plant and wildlife species (whether recorded in the CNDDB or not) known to occur in the region, on-site vegetation and habitat quality, topography, elevation, soils, surrounding land uses, and habitat preferences. The areas searched include the U.S. Geological Survey (USGS) 7.5-minute quadrangle for Soquel, which includes the Plan Area and surrounding vicinity.

Special-Status Plant Species

According to the CNDDB, the following special-status plant species could occur within the Plan Area:

- Santa Cruz tarplant (Holocarpha macradenia)
- White-rayed pentachaeta (Pentachaeta bellidiflora)
- Robust spineflower (Chorizanthe robusta var. robusta)

Special-Status Wildlife Species

According to the CNDDB, the following special-status wildlife species could occur within the Plan Area:

- Santa Cruz long-toed salamander (Ambystoma macrodactylum croceum)
- Steelhead central California coast DPS (Oncorhynchus mykiss irideus)
- Tidewater goby (Eucyclogobius new berryi)

- Ohlone tiger beetle (*Cicindela ohlone*)
- Zayante band-winged grasshopper (*Trimerotropis infantilis*)

Previous environmental studies have also identified sensitive and/or special-status wildlife and plant species as occurring or potentially occurring within the City, including coho salmon (*Oncorhynchus kisutch*), which are now absent.⁵ Soquel Lagoon has historically provided good habitat for juvenile steelhead and has been estimated to support as many as 3,000 juvenile steelhead. Tidewater Goby (*Eucyclogobius newberryt*) have been reported to occur within Soquel Creek from SR 1 to Capitola Beach.⁶

The Rispin Mansion Project Draft EIR (June 2003) identified the following raptor species (California species of concern) as likely to occur within the site:⁷

- Red-tailed hawk (Buteo jamaicensis)
- Sharp-shinned hawk (Accipiter striatus)
- Red-shouldered hawk (Buteo Lineatus)

The following special-status bat species (California species of concern) were also identified as having the potential to occur within the Rispin Mansion site⁸:

- Pallid bat (Antrozous pallidus)
- Townsend's big-eared bat (Corynorhinus townsendii)
- Small-footed myotis (Myotis ciliolabrum).

JURISDICTIONAL WATERS AND WETLANDS

The Plan Area is primarily located within the Soquel Creek watershed. The Soquel Creek Watershed is located in Santa Cruz County between the cities of Santa Cruz and Watsonville along the Central Coast of California. It is located near the southern end of the Santa Cruz Mountains. It is the second largest watershed and is completely within Santa Cruz County with a drainage area of approximately 42 square miles. Soquel Creek empties into the Monterey Bay, a designated National Marine Sanctuary, after flowing nearly 50 miles from its headwaters at the crest of the Santa Cruz Mountains at the Santa Clara County border.⁹

Soquel Creek is the primary water body in the Plan Area that flows year-round; it flows from the Santa Cruz Mountains to Capitola and discharges to Monterey Bay. Soquel Creek is the primary drainage that makes up the Soquel watershed, which extends through the center of the city. There are also several other smaller drainages that drain into Soquel Creek or seasonally drain directly into Monterey Bay. The Arana-Rodeo watershed is located in the western third of the Plan Area, draining Arana Gulch and Rodeo Creek Gulch, which are located west of the

⁵ Draft Soquel Creek Watershed Assessment and Enhancement Plan, 2003.

⁶ Draft Soquel Creek Watershed Assessment and Enhancement Plan, 2003.

⁷ Revised Draft Environmental Impact Report for the Rispin Mansion Project, 2003.

⁸ Revised Draft Environmental Impact Report for the Rispin Mansion Project, 2003.

⁹ Draft Soquel Creek Watershed Assessment and Enhancement Plan, 2003.

City. Water bodies and drainages within the Plan Area are potentially under the jurisdiction of the Corps, RWQCB, and/or CDFW.

WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat, separating different populations of a single species. Corridors effectively act as links between these populations. Development exists throughout the Plan Area, limiting wildlife movement. The Plan Area does not provide connectivity between large areas of open space on a local or regional scale. However, Soquel Creek flows through the City from the Santa Cruz Mountains. This creek and other smaller drainages function as a wildlife movement corridor within the Plan Area, albeit to a limited extent. In addition, Monarch butterfly habitats are located along Soquel Creek and in the Escalona Gulch area, as well as just outside the city limits between New Brighton Road and New Brighton State Park campground. These areas provide overwintering sites for the migrating Monarch butterfly and are considered environmentally sensitive habitat areas (ESHA).

4.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would result in a significant biological resources impact if it would:

- 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 regional plans, policies, or regulations by the California Department of Fish and Game, or U.S. Fish and Wildlife Service.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. Conflict with any local policies or ordinances protecting biological resources.
- 6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

4.3.3 ENVIRONMENTAL IMPACT DISCUSSION

BIO-1 The proposed Plan would not result in significant impacts to special-status plant and animal species in the Plan Area.

Various special status plant and animal species are known to occur or could potentially occur within the Plan Area. Although development within natural resource areas or areas potentially containing special-status plant and animal species is not anticipated, there is the potential for future development associated with implementation of the proposed Plan to significantly impact, either directly, or through habitat modifications, special status plant and wildlife species.

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed Plan do not result in significant impacts to special-status plant and animal species. Federal, State, and local regulations described in Section 4.3.1.1 of this chapter would protect special-status species present or potentially present within the Plan Area and compliance with these regulations would minimize potential impacts. The federal and California Endangered Species Acts, MBTA, Fish and Game Code, and California Native Plant Protection Act all serve to prevent the potential "take" of State, federally, or CNPS (1B) listed species.

In addition, Capitola Municipal Code Chapter 17.95, Environmentally Sensitive Habitats, establishes regulations for the development of properties within environmentally sensitive habitats. General regulations are provided as well as specific requirements pertaining to Soquel Creek and Iagoon, Soquel Creek riparian corridor, Noble Gulch riparian corridor, Tannery Gulch riparian corridor, and Soquel Creek – Escalona Gulch Monarch butterfly habitat.

Subsequent projects under the proposed Plan that would involve development in areas where special status plant and animal species may occur would be subject to separate project-level environmental review pursuant to CEQA in order to identify and mitigate impacts to special-status species. Applicable federal, State, and local regulations, along with the proposed Plan goals, policies, and actions, described below, would reduce potential impacts to special-status plant and animal species.

The proposed Plan includes the following goals, policies, and actions that are intended to further minimize potential impacts to special-status plant and animal species:

- Goal OSC-6. Protect natural habitat and other biological resources.
- Policy OSC-6.1 Natural Diversity. Promote the preservation of native species, habitat, and vegetation types and overall natural diversity in Capitola.
- Policy OSC-6.2 Environmentally Sensitive Areas. Protect and enhance, and where possible, expand environmentally sensitive areas in Capitola, including:
 - Soquel Lagoon
 - Soquel Creek riparian corridor
 - Noble Gulch riparian corridor
 - Tannery Gulch riparian corridor

- Soquel Creek monarch butterfly habitat
- Escalona Gulch monarch butterfly habitat
- Policy OSC-6.3 Development Projects. Ensure that new development minimizes impacts to biological resources and sensitive habitat to the greatest extent possible.
- Policy OSC-6.4 Regulatory Compliance. Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.
- Policy OSC-6.6 Monterey Bay. Ensure that development and conservation activities in Capitola help to protect the environmental value of Monterey Bay
- Policy OSC-6.7 Regional Collaboration. Continue to participate in regional, State, and federal programs to biological resources in Capitola and the Monterey Bay region.
- Goal OSC-7. Preserve and enhance Capitola's creeks and wetlands.
- Policy OSC-7.1 Riparian Landscaping. Require landscaping for new developments along creeks or in wetlands to be native riparian vegetation.
- Policy OSC-7.2 Soquel Creek. Continue to work with the California Department of Fish and Game and other regulatory agencies to ensure adequate water flows to support a healthy riparian habitat and permanent fishing resources in Soquel Creek.
- Policy OSC-7.3 Creek Alterations. Prohibit channelizations or other substantial alterations of creeks and streams except for the following:
 - Necessary water supply projects where no feasible alternative exists.
 - Maintenance or enhancement of water supply.
 - Flood protection for existing development where there is no other feasible alternative.
 - The improvement of fish and wildlife habitat.
- Policy OSC-7.4 Creek Alteration Impacts. Require permitted channelizations or stream alterations to minimize impacts to coastal resources, including the depletion of groundwater, and to include maximum feasible mitigation measures to mitigate unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection over "hard" solutions such as concrete or riprap channels. Any creek alteration shall conform to the City's Stormwater Pollution and Protection Ordinance and any applicable state and federal regulations.
- Policy OSC-7.5 Creek Restoration. Restore culverted or buried channels to their natural state wherever feasible.
- Policy OSC-7.6 Wetland Protection. Protect and restore where feasible the biological productivity and quality
 of wetlands.
- Policy OSC-7.7 Biological Study. Require the submittal of a detailed biological study for proposed projects where an initial site inventory indicates the presence or potential for wetland species or indicators. The study shall contain a delineation of all wetland areas on the project site. Wetland delineations shall be based on the definitions contained in Section 13577(b) of Title 14 of the California Code of Regulations.

- Policy OSC-7.8 Wetland Habitat. Require proposed development projects to protect and preserve wetland habitats that meet one of the following conditions:
 - Wetlands that contribute to the habitat quality and value of undeveloped lands established or expected to be established in perpetuity for conservation purposes.
 - Wetlands contiguous to riparian or stream corridors or other permanently protected lands.
 - Wetlands located within or contiguous to other high value natural areas.
- Policy OSC-7.9 Creek Recreation and Access. Integrate creeks with trails and other recreational open space and encourage public access along creek corridors where compatible with the protection of the creek's resources.
- Action OSC-7.1 Riparian Plant List. Develop a native riparian plant list for landscaping along creeks and in wetlands.

Applicable Regulations:

- Federal Endangered Species Act
- Migratory Bird Treaty Act
- California Endangered Species Act
- California Fish and Game Code
- California Native Plant Protection Act
- California Environmental Quality Act
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.95 Environmentally Sensitive Habitats

Development under the proposed Plan would not result in significant impacts to special-status plant and animal species and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

BIO-2 The proposed Plan would not result in significant impacts to riparian habitat or other sensitive natural community.

Riparian corridors in the city include the woodland along the west side of Soquel Creek from the Stockton Avenue Bridge to the Highway One overpass (Soquel Creek Riparian corridor), the Noble Gulch Riparian corridor, and the Tannery Gulch Riparian corridor. These corridors provide important natural resources, visual relief, and support for numerous wildlife and native vegetation.

Impacts to riparian habitats and sensitive natural communities include both direct and indirect impacts that may occur. Direct impacts occur as a result of converting natural resources to developed properties, including the addition of impervious surfaces or hydrologic alterations. Habitat loss and degradation of existing habitat are direct impacts. Direct impacts may also be temporary impacts if they disturb a habitat that is subsequently restored after construction. An indirect impact is a physical change in the environment, which is not immediately related to,

but is caused by the project. For example, if development results in reducing the sizes of remaining habitats, the values and functions of that habitat would be reduced and indirect impacts would occur.

Although development within areas containing riparian habitat or other sensitive natural community is not anticipated, there is the potential for future development associated with implementation of the proposed Plan to significantly impact, either directly or indirectly, riparian habitat, or other sensitive natural community.

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed Plan do not result in significant impacts to riparian habitat or other sensitive natural community. Compliance with the LCP and Capitola Municipal Code (described above), along with the proposed Plan goals, policies, and actions, identified below, would minimize potential impacts to riparian habitat or other sensitive natural community. Subsequent projects under the proposed Plan that would involve development in areas where riparian habitat or other sensitive natural community may occur would be subject to separate project-level environmental review pursuant to CEQA to identify and mitigate impacts. Applicable regulations, along with the proposed Plan goals, policies, and actions, described below, would reduce potential impacts to riparian habitat or other sensitive natural community.

The proposed Plan includes the following goals, policies, and actions that are intended to further minimize potential impacts to riparian habitat or other sensitive natural community:

- Goal OSC-6. Protect natural habitat and other biological resources.
- Policy OSC-6.1 Natural Diversity. Promote the preservation of native species, habitat, and vegetation types and overall natural diversity in Capitola.
- Policy OSC-6.3 Development Projects. Ensure that new development minimizes impacts to biological resources and sensitive habitat to the greatest extent possible.
- Policy OSC-6.4 Regulatory Compliance. Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.
- Policy OSC-6.6 Monterey Bay. Ensure that development and conservation activities in Capitola help to protect the environmental value of Monterey Bay
- Policy OSC-6.7 Regional Collaboration. Continue to participate in regional, State, and federal programs to biological resources in Capitola and the Monterey Bay region.
- Goal OSC-7. Preserve and enhance Capitola's creeks and wetlands.
- Policy OSC-7.1 Riparian Landscaping. Require landscaping for new developments along creeks or in wetlands to be native riparian vegetation.
- Policy OSC-7.2 Soquel Creek. Continue to work with the California Department of Fish and Game and other regulatory agencies to ensure adequate water flows to support a healthy riparian habitat and permanent fishing resources in Soquel Creek.
- Policy OSC-7.3 Creek Alterations. Prohibit channelizations or other substantial alterations of creeks and streams except for the following:

- Necessary water supply projects where no feasible alternative exists.
- Maintenance or enhancement of water supply.
- Flood protection for existing development where there is no other feasible alternative.
- The improvement of fish and wildlife habitat.
- Policy OSC-7.4 Creek Alteration Impacts. Require permitted channelizations or stream alterations to minimize impacts to coastal resources, including the depletion of groundwater, and to include maximum feasible mitigation measures to mitigate unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection over "hard" solutions such as concrete or riprap channels. Any creek alteration shall conform to the City's Stormwater Pollution and Protection Ordinance and any applicable state and federal regulations.
- Policy OSC-7.5 Creek Restoration. Restore culverted or buried channels to their natural state wherever feasible.
- Policy OSC-7.6 Wetland Protection. Protect and restore where feasible the biological productivity and quality
 of wetlands.
- Policy OSC-7.7 Biological Study. Require the submittal of a detailed biological study for proposed projects where an initial site inventory indicates the presence or potential for wetland species or indicators. The study shall contain a delineation of all wetland areas on the project site. Wetland delineations shall be based on the definitions contained in Section 13577(b) of Title 14 of the California Code of Regulations.
- Policy OSC-7.8 Wetland Habitat. Require proposed development projects to protect and preserve wetland habitats that meet one of the following conditions:
 - Wetlands that contribute to the habitat quality and value of undeveloped lands established or expected to be established in perpetuity for conservation purposes.
 - Wetlands contiguous to riparian or stream corridors or other permanently protected lands.
 - Wetlands located within or contiguous to other high value natural areas.
- Policy OSC-7.9 Creek Recreation and Access. Integrate creeks with trails and other recreational open space and encourage public access along creek corridors where compatible with the protection of the creek's resources.
- Action OSC-7.1 Riparian Plant List. Develop a native riparian plant list for landscaping along creeks and in wetlands.

Applicable Regulations:

- Federal Clean Water Act
- Porter-Cologne Water Quality Control Act
- California Environmental Quality Act
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.95 Environmentally Sensitive Habitats

Development under the Plan would not result in significant impacts to riparian habitat or other sensitive natural community and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

BIO-3 The proposed Plan would not result in significant impacts to federally protected wetlands.

Federally protected wetlands are those which have been delineated as jurisdictional waters of the U.S. by the Corps. Pursuant to Section 404 of the Clean Water Act, the Corps maintains a policy of "no net loss" of wetlands and regulates the discharge into waters of the U.S. by requiring project applicants to obtain authorization from the Corps prior to discharging dredged or fill material into any water of the U.S. Where a project would adversely affect waters of the U.S., the Corps typically requires in-kind mitigation at a ratio of at least 1:1 before they will issue a permit authorizing development.

Future development and/or redevelopment activities within the Plan Area could potentially result in significant impacts to federally protected wetlands. Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed Plan do not cause a significant impact to federally protected wetlands. Compliance with the LCP and Capitola Municipal Code (described above), along with the proposed Plan goals, policies, and actions would minimize potential impacts to wetlands. Subsequent projects under the proposed Plan that would involve development in areas of potential wetlands would be subject to separate project-level environmental review pursuant to CEQA in order to identify and mitigate impacts. Applicable regulations, along with the proposed Plan goals, policies, and actions, described below, would reduce potential impacts to federally protected wetlands.

The proposed Plan includes the following goals, policies, and actions that are intended to further minimize potential impacts to federally protected wetlands:

- Goal OSC-6. Protect natural habitat and other biological resources.
- Policy OSC-6.1 Natural Diversity. Promote the preservation of native species, habitat, and vegetation types and overall natural diversity in Capitola.
- Policy OSC-6.2 Environmentally Sensitive Areas. Protect and enhance, and where possible, expand environmentally sensitive areas in Capitola, including:
 - Soquel Lagoon
 - Soquel Creek riparian corridor
 - Noble Gulch riparian corridor
 - Tannery Gulch riparian corridor
 - Soquel Creek monarch butterfly habitat
 - Escalona Gulch monarch butterfly habitat
- Policy OSC-6.3 Development Projects. Ensure that new development minimizes impacts to biological resources and sensitive habitat to the greatest extent possible.
- Policy OSC-6.4 Regulatory Compliance. Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.

- Policy OSC-6.6 Monterey Bay. Ensure that development and conservation activities in Capitola help to protect the environmental value of Monterey Bay
- Policy OSC-6.7 Regional Collaboration. Continue to participate in regional, State, and federal programs to biological resources in Capitola and the Monterey Bay region.
- Goal OSC-7. Preserve and enhance Capitola's creeks and wetlands.
- Policy OSC-7.1 Riparian Landscaping. Require landscaping for new developments along creeks or in wetlands to be native riparian vegetation.
- Policy OSC-7.2 Soquel Creek. Continue to work with the California Department of Fish and Game and other regulatory agencies to ensure adequate water flows to support a healthy riparian habitat and permanent fishing resources in Soquel Creek.
- Policy OSC-7.3 Creek Alterations. Prohibit channelizations or other substantial alterations of creeks and streams except for the following:
 - Necessary water supply projects where no feasible alternative exists.
 - Maintenance or enhancement of water supply.
 - Flood protection for existing development where there is no other feasible alternative.
 - The improvement of fish and wildlife habitat.
- Policy OSC-7.4 Creek Alteration Impacts. Require permitted channelizations or stream alterations to minimize impacts to coastal resources, including the depletion of groundwater, and to include maximum feasible mitigation measures to mitigate unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection over "hard" solutions such as concrete or riprap channels. Any creek alteration shall conform to the City's Stormwater Pollution and Protection Ordinance and any applicable state and federal regulations.
- Policy OSC-7.5 Creek Restoration. Restore culverted or buried channels to their natural state wherever feasible.
- Policy OSC-7.6 Wetland Protection. Protect and restore where feasible the biological productivity and quality of wetlands.
- Policy OSC-7.7 Biological Study. Require the submittal of a detailed biological study for proposed projects where an initial site inventory indicates the presence or potential for wetland species or indicators. The study shall contain a delineation of all wetland areas on the project site. Wetland delineations shall be based on the definitions contained in Section 13577(b) of Title 14 of the California Code of Regulations.
- Policy OSC-7.8 Wetland Habitat. Require proposed development projects to protect and preserve wetland habitats that meet one of the following conditions:
 - Wetlands that contribute to the habitat quality and value of undeveloped lands established or expected to be established in perpetuity for conservation purposes.
 - Wetlands contiguous to riparian or stream corridors or other permanently protected lands.
 - Wetlands located within or contiguous to other high value natural areas.

- Policy OSC-7.9 Creek Recreation and Access. Integrate creeks with trails and other recreational open space and encourage public access along creek corridors where compatible with the protection of the creek's resources.
- Action OSC-7.1 Riparian Plant List. Develop a native riparian plant list for landscaping along creeks and in wetlands.

Applicable Regulations:

- Federal Clean Water Act
- Porter-Cologne Water Quality Control Act
- California Environmental Quality Act
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.95 Environmentally Sensitive Habitats

Development under the Plan would not result in significant impacts to federally protected wetlands and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

BIO-4 The proposed Plan would not 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.

Given the highly urbanized context of the Plan Area and the extent of existing development, opportunities for wildlife movement in the urbanized portion of the city are limited. Existing development, including buildings, major roadways, or other similar improvements, represent substantial barriers to wildlife movement. However, Soquel Creek runs through the middle of the city into the Monterey Bay. The creek 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 the only significant habitat for migratory non-marine waterbirds within Capitola. In addition, the Creek and Lagoon supports steelhead with resident trout and non-sport species and southwestern pond turtles.

Monarch butterfly habitats are located along Soquel Creek and in the Escalona Gulch area. These areas provide overwintering sites for the migrating Monarch butterfly and are considered environmentally sensitive habitat areas (ESHA). The orientation of the groves to wind and sun, the size and density of the trees, and the quiet, undisturbed setting are among the factors that make these sites among the few in the County suitable for the butterflies. Both Escalona Gulch and Soquel Creek Monarch butterfly groves lie within areas designated for preservation as open space. Just outside the city limits between New Brighton Road and New Brighton State Park campground is another overwintering site for Monarch butterflies. This grove is partly on State Park property and partly on private residential parcels.

The Plan does not propose any changes to Soquel Creek or changes in land uses to areas containing Monarch butterfly habitats. Wildlife would continue to move within these areas. Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed Plan do not interfere with

wildlife movement. Compliance with the LCP and Capitola Municipal Code (described above), along with the proposed Plan goals, policies, and actions, identified below, would minimize potential impacts to wildlife movement.

The proposed Plan includes the following goals, policies, and actions that are intended to further minimize potential impacts to wildlife movement:

- Goal OSC-6. Protect natural habitat and other biological resources.
- Policy OSC-6.1 Natural Diversity. Promote the preservation of native species, habitat, and vegetation types and overall natural diversity in Capitola.
- Policy OSC-6.2 Environmentally Sensitive Areas. Protect and enhance, and where possible, expand environmentally sensitive areas in Capitola, including:
 - Soquel Lagoon
 - Soquel Creek riparian corridor
 - Noble Gulch riparian corridor
 - Tannery Gulch riparian corridor
 - Soquel Creek monarch butterfly habitat
 - Escalona Gulch monarch butterfly habitat
- Policy OSC-6.3 Development Projects. Ensure that new development minimizes impacts to biological resources and sensitive habitat to the greatest extent possible.
- Policy OSC-6.4 Regulatory Compliance. Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.
- Policy OSC-6.6 Monterey Bay. Ensure that development and conservation activities in Capitola help to protect the environmental value of Monterey Bay
- Policy OSC-6.7 Regional Collaboration. Continue to participate in regional, State, and federal programs to biological resources in Capitola and the Monterey Bay region.
- Goal OSC-7. Preserve and enhance Capitola's creeks and wetlands.
- Policy OSC-7.1 Riparian Landscaping. Require landscaping for new developments along creeks or in wetlands to be native riparian vegetation.
- Policy OSC-7.2 Soquel Creek. Continue to work with the California Department of Fish and Game and other regulatory agencies to ensure adequate water flows to support a healthy riparian habitat and permanent fishing resources in Soquel Creek.
- Policy OSC-7.3 Creek Alterations. Prohibit channelizations or other substantial alterations of creeks and streams except for the following:
 - Necessary water supply projects where no feasible alternative exists.
 - Maintenance or enhancement of water supply.
 - Flood protection for existing development where there is no other feasible alternative.

- The improvement of fish and wildlife habitat.
- Policy OSC-7.4 Creek Alteration Impacts. Require permitted channelizations or stream alterations to minimize impacts to coastal resources, including the depletion of groundwater, and to include maximum feasible mitigation measures to mitigate unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection over "hard" solutions such as concrete or riprap channels. Any creek alteration shall conform to the City's Stormwater Pollution and Protection Ordinance and any applicable state and federal regulations.
- Policy OSC-7.5 Creek Restoration. Restore culverted or buried channels to their natural state wherever feasible.
- Policy OSC-7.6 Wetland Protection. Protect and restore where feasible the biological productivity and quality of wetlands.
- Policy OSC-7.7 Biological Study. Require the submittal of a detailed biological study for proposed projects where an initial site inventory indicates the presence or potential for wetland species or indicators. The study shall contain a delineation of all wetland areas on the project site. Wetland delineations shall be based on the definitions contained in Section 13577(b) of Title 14 of the California Code of Regulations.
- Policy OSC-7.8 Wetland Habitat. Require proposed development projects to protect and preserve wetland habitats that meet one of the following conditions:
 - Wetlands that contribute to the habitat quality and value of undeveloped lands established or expected to be established in perpetuity for conservation purposes.
 - Wetlands contiguous to riparian or stream corridors or other permanently protected lands.
 - Wetlands located within or contiguous to other high value natural areas.
- Policy OSC-7.9 Creek Recreation and Access. Integrate creeks with trails and other recreational open space and encourage public access along creek corridors where compatible with the protection of the creek's resources.
- Action OSC-7.1 Riparian Plant List. Develop a native riparian plant list for landscaping along creeks and in wetlands.

Applicable Regulations:

- Federal Endangered Species Act
- Migratory Bird Treaty Act
- California Endangered Species Act
- California Fish and Game Code
- California Native Plant Protection Act
- California Environmental Quality Act
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.95 Environmentally Sensitive Habitats

Significance Before Mitigation: Less than significant. Development of the project would not result in significant impacts to wildlife movement and impacts would be *less than significant*.

BIO-5 The proposed Plan would not conflict with Capitola's Community Tree and Forest Management Ordinance.

Capitola Municipal Code Chapter 12.12, Community Tree and Forest Management, establishes regulations relating to the protection, planting, maintenance, removal, and replacement of trees, and sets forth the process for development of a comprehensive plan for the planting and maintenance of a sustained community forest within the City. The proposed Plan would not directly involve removal of trees; however, future development and redevelopment activities associated with implementation of the proposed Plan could potentially involve the removal of trees within the City. The Community Tree and Forest Management Ordinance requires a tree permit prior to the removal of any non-fruit bearing trees within the City. Permits for heritage tree removal are discretionary and are approved by the planning commission only in accordance with CEQA and if specific findings can be made. Permits for non-heritage tree removal are ministerial and are approved by the community development director or designee if specific findings can be made. Thus, compliance with the Capitola Municipal Code will ensure impacts are less than significant.

The proposed Plan includes an action (Action OSC-4.3) that calls for amending the Tree Protection Ordinance to allow for solar access and passive solar design in new and existing development. The amendment could potentially allow for the removal of additional trees beyond existing conditions. However, the proposed Plan would not directly involve the removal of trees. Furthermore, any proposed amendment to the Tree Protection Ordinance would be reviewed for consistency with the General Plan.

The proposed Plan includes the following goal and policies that are intended to further minimize potential impacts to biological resources, including trees:

- Goal OSC-6. Protect natural habitat and other biological resources.
- Policy OSC-6.1 Natural Diversity. Promote the preservation of native species, habitat, and vegetation types and overall natural diversity in Capitola.
- Policy OSC-6.2 Environmentally Sensitive Areas. Protect and enhance, and where possible, expand environmentally sensitive areas in Capitola, including:
 - Soquel Lagoon
 - Soquel Creek riparian corridor
 - Noble Gulch riparian corridor
 - Tannery Gulch riparian corridor
 - Soquel Creek monarch butterfly habitat
 - Escalona Gulch monarch butterfly habitat
- Policy OSC-6.3 Development Projects. Ensure that new development minimizes impacts to biological resources and sensitive habitat to the greatest extent possible.
- Policy OSC-6.4 Regulatory Compliance. Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.

Applicable Regulations:

- Local Coastal Program
- City of Capitola Municipal Code, Chapter 12.12 Community Tree and Forest Management

Development under the proposed Plan would not conflict with Capitola's Community Tree and Forest Management Ordinance and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

BIO-6 The proposed Plan would not conflict with the Monterey Bay National Marine Sanctuary Management Plan.

As discussed in Chapter 4.8, Land Use and Planning, of this Draft EIR, the Monterey Bay National Marine Sanctuary Management Plan (MBNMSP) is the only conservation related plan that is applicable to Capitola.

Along with the Capitola LCP, the proposed Plan contains numerous policies that would seek to achieve protection of the ocean and its resources, consistent with the MBNMSP, including:

- Policy LU-3.7 Regional Outlook. Support land uses in Capitola that contribute to a more environmentally sustainable development regional development pattern in Santa Cruz and the Monterey Bay Area. Consider the benefits and impacts of new development in Capitola to neighboring jurisdictions and the region as a whole.
- Policy LU-13.4 New Brighton State Beach. Cooperate with the California Department of Parks and Recreation and other agencies to maintain, improve, and preserve New Brighton State Beach in a natural state to serve the region with a variety of nature-oriented and passive recreational opportunities.
- Policy LU-13.6 Beach Management. Manage activities and uses in the beach area so that the beach continues to be a safe and enjoyable place for people of all ages and abilities.
- Policy LU-13.7 Beach Structures. Prohibit permanent structures on the open, sandy beach area except for facilities required for public health and safety, to improve public access, or to maintain the health of the beach. Additions to the Capitola Wharf to improve public access and enjoyment are encouraged.
- Action LU-14.3 Coastal Recreation. Explore opportunities to increase coastal recreational activities in Capitola, particularly activities that support environmental awareness and stewardship of the marine and coastal environment.
- Goal OSC-6. Protect natural habitat and other biological resources.
- Policy OSC-6.1 Natural Diversity. Promote the preservation of native species, habitat, and vegetation types and overall natural diversity in Capitola.

- Policy OSC-6.2 Environmentally Sensitive Areas. Protect and enhance, and where possible, expand environmentally sensitive areas in Capitola, including:
 - Soquel Lagoon
 - Soquel Creek riparian corridor
 - Noble Gulch riparian corridor
 - Tannery Gulch riparian corridor
 - Soquel Creek monarch butterfly habitat
 - Escalona Gulch monarch butterfly habitat
- Policy OSC-6.3 Development Projects. Ensure that new development minimizes impacts to biological resources and sensitive habitat to the greatest extent possible.
- Policy OSC-6.4 Regulatory Compliance. Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.
- Policy OSC-6.6 Monterey Bay. Ensure that development and conservation activities in Capitola help to protect the environmental value of Monterey Bay
- Policy OSC-6.7 Regional Collaboration. Continue to participate in regional, State, and federal programs to biological resources in Capitola and the Monterey Bay region.
- Policy OSC-6.8 Eco-Tourism. Support the development of new eco-tourism and other businesses that provide education and recreation services to clients and support the Bay and beach environment.

Applicable Regulations:

Monterey Bay National Marine Sanctuary Plan

Development under the proposed Plan would not conflict with the Monterey Bay National Marine Sanctuary Management Plan and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

4.3.4 CUMULATIVE IMPACT DISCUSSION

The cumulative impacts analysis takes into consideration the past, present, and reasonably foreseeable projects within the Plan Area and surrounding area. Future development in the Plan Area and the region may encounter biological resources. During the growth anticipated to occur with implementation of the proposed Plan, it is possible that cumulative development could potentially result in the adverse impacts to biological resources. New developments would be required to comply with existing federal, State, and local regulations concerning the protection of biological resources on a project-by-project basis, as described above. Additionally, implementation of the proposed Plan goals, policies, and actions, and mitigation measures, would reduce potential impacts to biological resources to less-than-significant levels. Therefore, past, present, and reasonably foreseeable projects would not result in a cumulatively considerable contribution to impacts on biological resources.

Applicable Regulations:

- Federal Endangered Species Act
- Migratory Bird Treaty Act
- California Endangered Species Act
- California Fish and Game Code
- California Native Plant Protection Act
- California Environmental Quality Act
- Monterey Bay National Marine Sanctuary Plan
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.95 Environmentally Sensitive Habitats
- City of Capitola Municipal Code, Chapter 12.12 Community Tree and Forest Management

4.3.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant project-specific or cumulative impacts to biological resources upon implementation of the federal, State, and local regulations as well as the proposed Plan goals, policies, and actions and, therefore, no mitigation measures are required.

4.4 CULTURAL RESOURCES

This chapter discusses the regulatory framework, existing conditions, and impacts of the proposed Plan related to cultural resources. Cultural resources include historically and architecturally significant resources, as well as archaeological and paleontological resources.

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 REGULATORY FRAMEWORK

This section summarizes existing federal, State, and local policies and regulations that apply to cultural resources in Capitola.

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (National Register) as the official designation of historical resources, including districts, sites, buildings, structures, and objects. For a property to be eligible for listing in the National Register, it must be significant in American history, architecture, archaeology, engineering, or culture, and must retain integrity in terms of location, design, setting, materials, workmanship, feeling, and association. Resources less than 50 years in age, unless of exceptional importance, are not eligible for the National Register. Though a listing in the National Register does not prohibit demolition or alteration of a property, California Environmental Quality Act (CEQA) requires the evaluation of project effects on properties that are listed in the National Register.

State Regulations

The California Environmental Quality Act

Section 15064.5 of CEQA Guidelines states that a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines define four ways that a property can qualify as a historical resource for purposes of CEQA compliance:

- The resource is listed in, or determined eligible for, listing in the California Register of Historical Resources, as determined by the State Historical Resources Commission.
- The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- The lead agency determines the resource to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record.
- The lead agency determines that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1 (CEQA Guidelines Section 15064.5) which means, in part, that it may be eligible for the California Register.

In addition, Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines specify lead agency responsibilities to determine whether a project may have a significant effect on archaeological resources. If it can be demonstrated that a project will damage a unique archaeological resource, the lead agency may require reasonable efforts for the resources to be preserved in place or left in an undisturbed state. Preservation in place is the preferred approach to mitigation. The Public Resources Code also details required mitigation if unique archaeological resources are not preserved in place.

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These provisions protect such remains from disturbance, vandalism, and inadvertent destruction; establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establish the Native American Heritage Commission (NAHC) as the authority to identify the most likely descendant and mediate any disputes regarding disposition of such remains.

California Register of Historical Resources

The California Register of Historical Resources (California Register) establishes a list of properties to be protected from substantial adverse change (Public Resources Code Section 5024.1). The State Office of Historic Preservation (OHP) has determined that buildings, structures and objects 45 years or older may be of historical value. A historical resource may be listed in the California Register if it meets any of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- It is associated with the lives of persons important in California's past.
- It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic value.
- It has yielded or is likely to yield information important in prehistory or history.

The California Register includes properties that are listed or have been formally determined eligible for listing in the National Register, State Historical Landmarks, and eligible Points of Historical Interest. Other resources that may be eligible for the California Register, and which require nomination and approval for listing by the State Historic Resources Commission, include resources contributing to the significance of a local historic district, individual historical resources, historical resources identified in historic surveys conducted in accordance with OHP procedures, historic resources or districts designated under a local ordinance consistent with the procedures of the State Historic Resources Commission, and local landmarks or historic properties designated under local ordinance.

Additionally, for a resource to be eligible for the California Register of Historic Resources, it must retain sufficient integrity to be recognizable as a historical resource and to convey its significance.

2010 California Historical Building Code, California Code of Regulations, Title 24, Part 8

The California Historical Building Code (CHBC) (as set forth in Sections 18950 to 18961 of Division 13, Part 2.7 of Health and Safety Code and as subject to the rules and regulations set forth in 24 CCR Part 8), provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction), or relocation of historical buildings, structures, and properties deemed by any level of government as having importance to the history, architecture, or culture of an area.

Health and Safety Code Section 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disinterment of remains known to be human, without authority of law, is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

California State Senate Bill 18

Senate Bill (SB) 18, which went into effect January 1, 2005, set forth requirements for local governments (cities and counties) to consult with Native American tribes to aid in the protection of traditional tribal cultural places through local land use planning.¹ The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early stage of planning for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy prior to a local government making individual site-specific, project-level land use designations.

Public Resources Code Section 5097

Public Resources Code Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on non-federal public lands. The disposition of Native American burials falls within the jurisdiction of the NAHC, which prohibits willfully damaging any historical, archaeological, or vertebrate paleontological site or feature on public lands.

¹ SB 18 amends Government Code Sections 65040.2, 65092, 65351, and 65560, while adding Government Code sections 65352.3, 65352.4, and 65562.5.

Local Regulations

Capitola Local Coastal Program

In 1976 the State legislature passed the California Coastal Act of 1976, transferring most of the authority vested in the California Coastal Commission by the Coastal Act to local governments through adoption and certification of "Local Coastal Programs." Local Coastal Programs (LCP) include a local government's land use plan, zoning district maps, and other implementing actions that, when taken together, meet the requirements and implement the provisions and policies of the Coastal Act. An LCP reflects the coastal issues and concerns of the local jurisdiction and must be consistent with Statewide policies of the Coastal Act. When certified, the LCP becomes legally binding on the City.

Capitola's Local Coastal Land Use Plan is a comprehensive long-term plan for land use and physical development within the City's coastal zone. Prior to the issuance of any permit for development within the coastal zone, the City of Capitola is required to prepare necessary findings that the development meets the standards set forth in all applicable land use policies.

Relevant Coastal Act policies pertaining to cultural resources include the following:

- Section 30244. Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation shall be required.
- Policy 1-3. It shall be the policy of the City of Capitola to provide for the protection, preservation, and proper disposition (where necessary) of archaeological, historical, and paleontological resources within Capitola. This policy shall be implemented in cooperation with the landowners, developers, State Historic Preservation Office and the Archaeological Research Center (see Map 1-1).

Capitola Municipal Code

Chapter 17.11, Archaeological/Paleontological Resources District, of the City of Capitola Municipal Code (Capitola Municipal Code) establishes development standards for the maintenance and protection of archaeological and paleontological resources within the city. New land uses and development are required to incorporate all site planning and design features necessary to avoid or mitigate impacts to archaeological resources. An archaeological survey report is required for any development located within "Archaeological/Paleontological Sensitivity Areas," 750 feet of a known archaeological resource, or an area with probability of containing archaeological resources. The report is required to be approved by the city. Where construction on, or construction impacts to, an identified archaeological or paleontological site cannot be avoided, a mitigation plan shall be required for the project. The plan shall recommend preservation measures in accordance with the guidelines of the State Office of Historic Preservation and the NAHC. If the plan contains recommendations that will impose any continuing restrictions or obligations on the property, an agreement binding the property's owner to the restrictions or requirements, approved by the city attorney, shall be recorded, and the consulting archaeologist shall file the report with the State Office of Historic Preservation. The archaeologist would be required to compile a final report on preservation activities and submit it to the City. The report must include at a minimum, a field survey by the archaeologist, survey of available state resource information at the Northwest Regional Information Center of the California Archaeological Inventory, description of the site's sensitivity and any identified

archaeological resources, appropriate levels of development on the site, and recommended mitigation measures. Further, development proposed on parcels with known archaeological resources shall be subject to an environmental assessment under the CEQA guidelines.

Capitola Municipal Code Chapter 17.87, Historic Features, identifies the procedures for establishing or designating a historic feature. A historic feature is any improvement, or group of improvements, on a single site of historic significance which, because of special aesthetic, cultural, architectural, archaeological, and/or paleontological characteristics, has been so designated by the City Council upon the recommendation of the Planning Commission. In order to be designated as a historic feature, the Planning Commission or City Council is required to make findings that the potential historic feature evidences one or more of the qualities outlined. Upon final determination, the feature is added to the register of historic features.

Once a property has been designated by the City Council as a historic resource, any proposed "significant alteration" to the property requires Planning Commission approval of a Conditional Use Permit. When evaluating whether a proposed project would significantly alter a historic resource, the Planning Commission generally considers whether the project conforms to the Secretary of the Interior's Standards for the Treatment of Historic Properties. These standards, prepared by the federal government, describe the means for preserving and modifying historic structures without negatively affecting their historic significance. If the Planning Commission determines that a proposed project conforms to these standards, the Planning Commission will generally approve the project. All decisions of the Planning Commission may be appealed to the City Council for a final decision.

4.4.1.2 EXISTING CONDITIONS

This section provides an overview of the history of Capitola and of resources of paleontological, archaeological, and historical significance that may be affected by the proposed Plan.

History of Capitola²

Capitola is built on the location of an Indian village that existed for more than a 1,000 years. Native inhabitants, known as the Soquel Indians, were removed to the Mission Santa Cruz when it was established in 1791. Nearly all traces of the Soquel "rancheria" and its culture vanished. In the Mexican Era that followed, the territory became part of the Soquel Rancho granted to Martina Castro and husband Michael Lodge in 1833.

California became a state in 1850 and Santa Cruz County was formed in 1850, shortly before German immigrant Frederick Hihn, a pioneer credited with developing much of the county's early industry, acquired the site of present-day Capitola from the Castro family.

² City of Capitola, *Capitola History*, written by Carolyn Swift, http://www.cityofcapitola.org/general/page/capitola-history, accessed on September 12, 2013.

As settlers engaged in logging and agriculture, the beach became a busy shipping point known as Soquel Landing. A wharf built in 1857 was expanded to 1,200 feet a few years later. Gradually, a small fishing colony of Italian immigrants settled at its base.

Drawn by cool mists and the smooth beach at the mouth of Soquel Creek, travelers stopped and often stayed as long as they were permitted. Increasingly, vacationers thirsting for a break from hot weather in the Santa Clara Valley found the seashore inviting for an overnight camp. After roads over the Summit were built and improved in the mid-1860s, word about the sanctuary reached further into the State's interior to places like Hollister, Fresno, Modesto, and Stockton, towns that would in a few years lend their names to the streets of Capitola.

Hihn leased the beach flat to Soquel pioneer Samuel A. Hall in 1869. Hall saw that the landscape that provided refuge from the summer heat could also be profitable. His foresight created the place known now as the oldest resort on the Pacific Coast.

July 4, 1874 was the official opening of "Camp Capitola." Hall's daughter, Lulu, christened Capitola for the heroine featured in popular novels by E.D.E.N. Southworth. The camp's success was guaranteed by passenger service on the Santa Cruz-Watsonville Railroad, completed in 1876.

Once Capitola prospered, Hihn took over direct control of the enterprise, and subdivided lots for sale beginning in 1882. Over time, the old camping spot grew into "Capitola by the Sea," a vacation spa with a 160-room hotel, hot salt-water baths, and trolley service from Santa Cruz.

Hihn died in 1913, but his daughter waited until after World War I to sell off the Capitola portion of his estate. Henry Allen Rispin, a speculator from San Francisco, bought Capitola in 1919 with plans to build an updated, fashionable haven. Among his ventures were a reconfiguration of the Esplanade, construction of the Venetian Courts, and development of a golf course. Overextended and losing his estate to foreclosures by 1927, Rispin left Capitola after the start of the Great Depression of 1929, and never returned.

Capitola's community of permanent residents stepped forward to guide Capitola in the following decades. The village became the third city in Santa Cruz County after an incorporation election in January 1949.

Paleontological Resources

Paleontological resources (fossils) are the remains of prehistoric plant and animal life. Paleontological resources do not include human remains or artifacts. Fossil remains such as bones, teeth, shells, and wood are found in geologic formations. Paleontological resources are limited, non-renewable, sensitive scientific and educational resources. The potential for fossil remains at a location can be predicted based on whether or not previous fossil finds have been made in the vicinity, and the age of the geologic formations.

The City of Capitola lies on a marine terrace incised by coastal streams including Soquel Creek. The Pliocene Purisma formation underlies the region and consists of interbedded siltstone and sandstone approximately three to six million years old. Essentially, the entire coastal bluff area in Capitola is composed at least partially of the Purisima Formation. Capitola's Coastal Zone contains an important fossil record dating back long before human occupation. Most of these paleontological resources are found in the Purisima formation. Therefore, there is a high potential for paleontological resources to occur along all the bluffs in Capitola. A significant number of fossils (including a whale skull) have been found in the bluffs below Grand Avenue.

An archaeological sensitivity map (Map I-1 of the LCP) was previously prepared by the California Archaeological Site Survey, which designates areas of the city where there is a likelihood of prehistoric cultural resources. The sensitivity map considers both archaeological and paleontological resources. Although specific sites are not identified, specific information on recorded sites is available to the City.

Archeological Resources

Archaeological resources are defined as the material remains of any area's pre-historic (aboriginal/Native American) or historic (European and Euro-American) human activity. Archaeological resources are known to occur within the Plan Area. The archaeological sensitivity map of the LCP (Map I-1) designates areas of the city where there is a likelihood of prehistoric cultural resources, including archaeological resources.

Historical Resources

Historic Districts

A National Register Historic District is an area recognized by the federal government as containing a high concentration of structures that are architecturally or historically significant. Within each district there are "contributing structures" that contribute to the historic character of the district, and "non-contributing structures" that lack historic significance due to major remodeling or other factors. Non-contributing structures are generally subject to historic preservation requirements that are less strict than those applying to contributing structures.

As shown on Figure 4.4-1, there are four National Register Historic Districts within the city:

- The Venetian Court Historic District. Located at the juncture of the Soquel Creek and the Capitola Beach, the Venetian Court was built in 1924 and consists of 24 residential units and a 19-unit hotel.
- The Six Sisters and Lawn Way Historic District. The Six Sisters duplexes, located on the Esplanade in the Village, were originally built in 1903 and provide vacationers with oceanfront rental housing. The Lawn Way subdivision, located in the village center, was completed in 1911 and today features a high concentration of historic structures.
- The Rispin Historic District. The Rispin property is located along Wharf Road and the Soquel Creek. The historic Rispin Mansion, currently vacant, is located within this district.
- The Old Riverview Historic District. This district is located along the Soquel Creek just north of the Stockton Bridge and contains cottages adjacent to the Creek and the Riverview Pathway.

Historic Structures

According to the City of Capitola Historic Structures List prepared in 2005, there are 65 designated historic structures in Capitola. Designated historic structures are listed or are eligible for listing on the National Register of

CULTURAL RESOURCES



Source: City of Capitola, 2010.

Figure 4.4-1 Historic Resources
Properties Listed on the National Register of Historic Places and the California Register of Historic Places					
404 A&B Blue Gum Avenue	201 Monterey Avenue	441 Riverview Avenue			
406 Blue Gum Avenue	305 Riverview Avenue	443 Riverview Avenue			
408 Blue Gum Avenue	311 Riverview Avenue	488 Riverview Drive			
109 Capitola Avenue	317 & 317A Riverview Avenue	489 Riverview Drive			
421 Capitola Avenue	319 Riverview Avenue	501 Riverview Drive			
425 Capitola Avenue	321A & 321B Riverview Avenue	506 Riverview Drive			
427 Capitola Avenue	323 Riverview Avenue	507 Riverview Drive			
110 Esplanade	326 Riverview Avenue	509 & 509A Riverview Drive			
112 Esplanade	Union Pacific Railroad Trestle	510 Riverview Drive			
118 Esplanade	397 Riverview Avenue	1400 Wharf Road (Wharf)			
120 Esplanade	399 Riverview Avenue	1500 Wharf Road (District)			
104 (East) Lawn Way	401 Riverview Avenue	1720 & 1720A Wharf Road			
106 (East) Lawn Way	409 Riverview Avenue	2200 Wharf Road (District)			
114 (East) Lawn Way	415 Riverview Avenue	Cherry Avenue Retaining Wall			
115 and 117 (East) Lawn Way	417 Riverview Avenue	Hihn Park Stairs			
116 Lawn Way	422 Riverview Avenue	Depot Hill Staircase			
130 (North) Lawn Way	425 Riverview Avenue	Lagoon Pool 1 231 Esplanade			
131 (North) Lawn Way	429 Riverview Avenue	Monterey Avenue Palm Tree			
133 (North) Lawn Way	432 Riverview Avenue	Monterey Avenue Retaining Wall			
134 (North) Lawn Way	435 Riverview Avenue	East Hill Pathway			
127 Monterey Avenue	437 Riverview Avenue	Stockton Avenue Bridge			
131-133 Monterey Avenue	439 Riverview Avenue				

TABLE 4.4-1 DESIGNATED HISTORIC STRUCTURES

Source: City of Capitola, 2005.

Historic Places, the California Historic Resources Inventory, or the Capitola Register of Historic Features. The designated historic structures are listed in Table 4.4-1 and shown in Figure 4.4-1. As illustrated in Figure 4.4-1, the majority of designated historic structures are located in the Village or along Soquel Creek, immediately north of the Trestle Bridge.

In addition to designated historic structures, there are also potential historic structures in Capitola. A potential historic structure is a structure that is 50 years or older and possesses the general characteristics of structures listed on the National, California, or Capitola registers, but has not yet been officially designated as a historic structure. The 1986 Capitola Architectural Survey and draft lists of historic resources prepared by the City's Historic

Resources Subcommittee and the Capitola Museum Director identify 105 potential historic structures in Capitola. These potential historic structures are listed in Table 4.4-2 and shown in Figure 4.4-1. The majority of these structures are concentrated in the Village and the Depot Hill neighborhood, with additional structures located in the Jewel Box and Upper Village neighborhoods.

4.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would result in a significant cultural resources impact if it would:

- 1. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- 2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- 3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- 4. Disturb any human remains, including those interred outside of formal cemeteries.

4.4.3 ENVIRONMENTAL IMPACT DISCUSSION

CULT-1 The Plan would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Pursuant to CEQA, a historical resource is a resource listed in or eligible for listing in the California Register of Historical Resources, a resource included in a local register of historical resources, a resource determined to be significant by the lead agency, or a resource determined by the Lead Agency to be a historical resource as defined in the Public Resources Code.

There are 65 designated historic structures that are listed or are eligible for listing on the National Register of Historic Places, the California Historic Resources Inventory, or the Capitola Register of Historic Features within the city. In addition to designated historic structures, there are also several potential historic structures that have been identified by the City. Additionally, four areas of the city are identified as National Register Historic Districts. Future development and/or redevelopment activities within or adjacent to these sites or districts could potentially cause a substantial adverse change in the significance of a historical resource.

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed Plan do not cause a substantial adverse change to a historic resource. As described in Section 4.4.1.1, Regulatory Framework, Title 24, Part 8 of the California Code of Regulations provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction), or relocation of historical

TABLE 4.4-2 POTENTIAL HISTORIC STRUCTURES				
800 Bay Avenue	405 Pine Street	105 Fanmar Way		
101 Capitola Avenue	407 Pine Street	107 Fanmar Way		
110 Capitola Avenue	1530 Prospect Avenue	307 Hill Street		
201 Capitola Avenue	315 Riverview Avenue	212 Hollister Avenue		
216 Capitola Avenue	611 Riverview Drive	120 Monterey Avenue		
307 Capitola Avenue	126 San Jose Avenue	216 Monterey Avenue		
314 Capitola Avenue	220 San Jose Avenue	221 Monterey Avenue		
529 Capitola Avenue	221 San Jose Avenue	240 Monterey Avenue		
609 Capitola Avenue	102 Stockton Avenue	250 Monterey Avenue		
911 Capitola Avenue	103 Stockton Avenue	216 Oakland Avenue		
919 Capitola Avenue	719 Sunset Drive	405 Pine Street		
4910 Capitola Road	219 Terrace Way	407 Pine Street		
116 Central Avenue	1810 Wharf Road	1530 Prospect Avenue		
104 Cherry Avenue	800 Bay Avenue	315 Riverview Avenue		
106 Cherry Avenue	101 Capitola Avenue	126 San Jose Avenue		
202 Cherry Avenue	110 Capitola Avenue	221 San Jose Avenue		
317 Cherry Avenue	201 Capitola Avenue	219 Terrace Way		
325 Cherry Avenue	307 Capitola Avenue	1810 Wharf Road		
112 Cliff Avenue	314 Capitola Avenue	116 Central Avenue		
118 Cliff Avenue	529 Capitola Avenue	112 Cliff Avenue		
4980 Cliff Drive	609 Capitola Avenue	118 Cliff Avenue		
620 El Salto Drive	911 Capitola Avenue	240 Monterey Avenue		
4555 Emerald Street	919 Capitola Avenue	250 Monterey Avenue		
105 Fanmar Way	4910 Capitola Road	106 Saxon Avenue		
107 Fanmar Way	116 Central Avenue	107 Saxon Avenue		
307 Hill Street	104 Cherry Avenue	108 Saxon Avenue		
212 Hollister Avenue	106 Cherry Avenue	109 Saxon Avenue		
404 McCormick Avenue	202 Cherry Avenue	114 Saxon Avenue		
120 Monterey Avenue	317 Cherry Avenue	117 Saxon Avenue		
216 Monterey Avenue	325 Cherry Avenue	205 Saxon Avenue		
221 Monterey Avenue	112 Cliff Avenue	206 Saxon Avenue		
240 Monterey Avenue	118 Cliff Avenue	207 Saxon Avenue		
250 Monterey Avenue	4980 Cliff Drive	208 Saxon Avenue		
504 Monterey Avenue	620 El Salto Drive	212 Saxon Avenue		
216 Oakland Avenue	4555 Emerald Street	217 Saxon Avenue		

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buildings, structures, and properties deemed by any level of government as having importance to the history, architecture, or culture of an area.

Furthermore, Chapter 17.87 of Capitola's Municipal Code, identifies the procedures for establishing or designating a historic feature. Once a property has been designated by the City Council as a historic resource, any proposed "significant alteration" to the property requires Planning Commission approval of a Conditional Use Permit. When evaluating whether a proposed project would significantly alter a historic resource, the Planning Commission generally considers whether the project conforms to the Secretary of the Interior's Standards for the Treatment of Historic Properties. These regulations would reduce potential impacts to historical resources to less-thansignificant levels.

The proposed Plan also includes the following goals, policies, and actions that are intended to further minimize potential impacts to historical resources:

- Goal LU-2. Preserve historic and cultural resources in Capitola.
- Policy LU-2.1 Historic Structures. Encourage the preservation, maintenance, and adaptive reuse of important historic structures in Capitola.
- Policy LU-2.2 Modification Standards. Use the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties as a guide for exterior modifications to identified historic resources.
- Policy LU-2.3 Preservation Incentives. Promote the maintenance, restoration, and rehabilitation of historical resources through the use of Federal Rehabilitation Tax Credits, State incentives including the Mills Act, the California Cultural and Historical Endowment, and the California State Historical Building Code and other incentives as they arise.
- Policy LU-2.4 Public Awareness. Work with the Capitola Museum Curator to encourage public education and awareness of the history of Capitola and the community's historical and cultural resources through public outreach, preparing promotional materials, and other similar initiatives.
- Action LU-2.1 Historic Structures List. Update the City of Capitola Historic Structures List as new information becomes available, for example, during project review or if historic research yields additional information.
- Action LU-2.2 Public Outreach. Continue to work with Soquel Union Elementary and Santa Cruz City school districts to educate the public about Capitola's history and historical and cultural resources
- Action LU-2.3 Historic Preservation Guidelines. Develop Historic Preservation Guidelines to enhance and protect Capitola's historic resources. Guidelines will clarify:
 - Process and criteria to determine the historic significance of properties.
 - Permits and approvals needed to make modifications to identified historic resources.
 - Process and criteria to determine the historic significance of properties
 - Design standards and guidelines for modifications to a historic resource
 - Incentives for historic preservation
- Action LU-2.4 Local Register. Consider establishing a local register of historic resources.

- Goal LU-7. Ensure a high quality and distinctive design environment in Capitola Village.
- Policy LU-7.1 New Development Design. Require all new development to enhance the unique character of the Village.
- Policy LU-7.3 Scenic Resources. Protect and enhance significant scenic views and resources that contribute to the unique identity and public enjoyment of the Village. Scenic resources include:
 - The general pedestrian-oriented and coastal village character of existing development in the Village.
 - Public and semi-public gathering places, including Esplanade Park, Lawn Way, Capitola Beach, Soquel Creek path, and the Capitola Wharf.
 - Landscaping and streetscape amenities.
 - Historic structures, including contributing structures to Capitola's four National Register Historic Districts and structures listed on the official City of Capitola Historic Structures List.
 - Natural features such as Capitola Beach, Soquel Creek and Lagoon, cliffs and bluffs, and vegetated banks.

Applicable Regulations:

- National Historic Register
- California Register of Historical Resources
- California Historic Building Code
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.87 Historic Features

Development under the Plan would not adversely affect the significance of any relevant historic resources and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

CULT-2 Construction activities associated with implementation of the proposed Plan could potentially cause a substantial adverse change in the significance of a known or unknown archaeological resource.

The City of Capitola contains areas identified by the Local Coastal Program as having a likelihood of prehistoric cultural resources, including archaeological resources. Future development and/or redevelopment activities within these areas could potentially cause a substantial adverse change in the significance of a known or unknown archaeological resource.

Several existing regulations would help to ensure that development and redevelopment activities associated with the proposed Plan do not cause a substantial adverse change to an archaeological resource. Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines specify lead agency responsibilities to determine whether a project may have a significant effect on archaeological resources. If it can be demonstrated that a project

will damage a unique archaeological resource, the lead agency may require reasonable efforts for the resources to be preserved in place or left in an undisturbed state. Preservation in place is the preferred approach to mitigation. The Public Resources Code also describes required mitigation if unique archaeological resources are not preserved in place.

The California Coastal Act also requires mitigation to address adverse impacts to archaeological resources within the coastal zone. As a part of the coastal permit process, the California Coastal Commission has conditioned permits to require protection of the archaeological and paleontological resources. These requirements have included review of the site by a qualified professional archaeologist or paleontologist to determine its value, resiting or redesigning the project to minimize impact on archaeological or paleontological resources, and preparation and implementation of an archaeological mitigation plan which could include excavation or protection of the resource for future study by covering with fill.

Furthermore, Chapter 17.11 of Capitola's Municipal Code contains development standards for the maintenance and protection of archaeological/paleontological resources within the city. All new land uses and development are required to incorporate site planning and design features necessary to avoid or mitigate impacts to archaeological resources. All development proposed on parcels with known archaeological resources will be subject to an environmental assessment under the CEQA guidelines. These regulations help to reduce potential impacts to archaeological resources to a less-than-significant level.

The proposed Plan also includes the following goal, policy, and action that are intended to further minimize potential impacts to archaeological resources:

- Goal LU-2. Preserve historic and cultural resources in Capitola.
- Policy LU-2.4 Public Awareness. Work with the Capitola Museum Curator to encourage public education and awareness of the history of Capitola and the community's historical and cultural resources through public outreach, preparing promotional materials, and other similar initiatives.
- Action LU-2.2 Public Outreach. Continue to work with the Soquel Union Elementary and Santa Cruz City school districts to educate the public about Capitola's history and historical and cultural resources.

Applicable Regulations:

- California Public Resources Code Section 21083.2
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.11 Archaeological/Paleontological Resources District

There is the potential that construction associated with future development not located within the archaeological and paleontological sensitivity areas could inadvertently unearth unknown or unanticipated cultural resources. This would be a *significant* impact.

Significance Before Mitigation: Significant.

CULT-3 Construction activities associated with implementation of the proposed Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

The City of Capitola contains areas identified within the Local Coastal Program (Map I-1) as having a likelihood of prehistoric cultural resources, including paleontological resources. The entire coastal bluff area in Capitola is composed at least partially of the Purisima Formation. Paleontological resources found within the city have been located in this Purisima Formation. Future development and/or redevelopment within Archaeological/ Paleontological Sensitivity Areas could potentially destroy a unique paleontological resource.

Similar to archaeological resources, several existing regulations will help to ensure that development and redevelopment associated with the proposed Plan do not significantly impact a paleontological resource. As described in Section 4.4.1.1, Regulatory Framework, the Coastal Act requires mitigation to address adverse impacts to paleontological resources within the coastal zone. Further, Chapter 17.11 of Capitola's Municipal Code, as described under Impact CULT-2, establishes development standards for the maintenance and protection of archaeological and paleontological resources within the city. New land uses and development are required to incorporate all site planning and design features necessary to avoid or mitigate impacts to archaeological and paleontological resources.

The proposed Plan contains the following goal, policy, and action that address potential impacts to paleontological resources:

- Goal LU-2. Preserve historic and cultural resources in Capitola.
- Policy LU-2.4 Public Awareness. Work with the Capitola Museum Curator to encourage public education and awareness of the history of Capitola and the community's historical and cultural resources through public outreach, promotional materials, and other similar initiatives.
- Action LU-2.2 Public Outreach. Continue to work with the Soquel Union Elementary and Santa Cruz City school districts to educate the public about Capitola's history and historical and cultural resources.

Applicable Regulations:

- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.11 Archaeological/Paleontological Resources District

There is the potential that construction associated with future development not located within the archaeological and paleontological sensitivity areas could inadvertently unearth unknown or unanticipated cultural resources. This would be a *significant* impact.

Significance Before Mitigation: Significant.

CULT-4 Construction activities associated with implementation of the proposed Plan could disturb human remains, including those interred outside of formal cemeteries.

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The proposed Plan could have a significant environmental impact if it would disturb human remains, including those interred outside of formal cemeteries. The City of Capitola is built on the location of an Indian village that existed for more than a 1,000 years and contains areas identified within the Local Coastal Program (Map I-1) as having a likelihood of prehistoric cultural resources.

Compliance with the provisions for Native American consultation pursuant to SB18 as well as with the regulations pertaining to procedures in the event of discovery of human remains contained in California Health and Safety Code Section 7052 and 7050.5 and California Public Resources Code Section 5097 and 15064.5 would reduce potential impacts. If human remains were found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Sections 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. In addition, the requirements and procedures set forth in California Public Resources Code Section 5097.98 would be implemented. If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlie adjacent remains until the County coroner has been called out, the remains have been investigated, and appropriate recommendations have been made for the treatment and disposition of the remains. Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These provisions protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to identify the most likely descendant and mediate any disputes regarding disposition of such remains.

Applicable Regulations:

- Health and Safety Code Section 7052 and 7050.5
- Public Resources Code Section 5097
- California State Senate Bill 18

There is the potential that construction associated with future development could inadvertently unearth unknown or unanticipated human remains. This would be a *significant* impact.

Significance Before Mitigation: Significant.

4.4.4 CUMULATIVE IMPACT DISCUSSION

CULT-5 The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to cultural resources.

The cumulative impacts analysis takes into consideration the past, present, and reasonably foreseeable projects within the Plan Area and surrounding area. Future development in the Plan Area and the region may encounter cultural resources. During the growth anticipated to occur with implementation of the proposed Plan, it is possible that cumulative development could potentially result in the adverse modification or destruction of historic,

archaeological, and/or paleontological resources. Undiscovered archaeological and/or paleontological resources or human remains could also be impacted. New developments would be required to comply with existing federal, State, and local regulations concerning the protection of historic, archaeological, and paleontological resources on a project-by-project basis, as described above. Additionally, implementation of the proposed Plan goals, policies, and actions, and mitigation measures, would reduce potential impacts to cultural resources to less than significant. Therefore, past, present, and reasonably foreseeable projects would not result in a cumulatively considerable contribution to impacts on historical resources, archaeological resources, unique paleontological resources, unique geologic features, or human remains and the impact would be *less than significant*.

Applicable Regulations:

- National Historic Register
- California Register of Historical Resources
- California Historic Building Code
- Health and Safety Code Section 7052 and 7050.5
- California Public Resources Code Section 21083.2
- California State Senate Bill 18
- Public Resources Code Section 5097
- Local Coastal Program
- City of Capitola Municipal Code, Chapter 17.87 Historic Features
- City of Capitola Municipal Code, Chapter 17.11 Archaeological/Paleontological Resources District

Significance Before Mitigation: Less than significant.

4.4.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

CULT-2 Construction activities associated with implementation of the proposed Plan could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Mitigation Measure CULT-2: If cultural resources or human remains are accidentally discovered during construction, work shall be halted within 50 meters (150 feet) of the find until it can be evaluated by a qualified professional archaeologist and/or paleontologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented. Disturbance shall not resume until the significance of the cultural resource is determined and appropriate mitigations to preserve the resource on the site are established. If human remains are encountered during construction or any other phase of development, work in the area of discovery must be halted, the Santa Cruz County coroner notified, and the provisions of Public Resources Code 5097.98-99, Health and Safety Code 7050.5, carried out. If the remains are determined to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours as required by Public Resources Code 5097.

Significance After Mitigation: Less than significant.

CULT-3 Construction activities associated with implementation of the proposed Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Mitigation Measure CULT-3: Refer to Mitigation Measure CULT-2.

Significance After Mitigation: Less than significant.

CULT-4 Construction activities associated with implementation of the proposed Plan could disturb human remains, including those interred outside of formal cemeteries.

Mitigation Measure CULT-4: Refer to Mitigation Measure CULT-2.

Significance After Mitigation: Less than significant.

This chapter discusses existing conditions in the Plan Area and potentially significant impacts associated with the adoption and implementation of the proposed Plan related to geology, soils, and seismicity.

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 REGULATORY FRAMEWORK

This section summarizes existing federal, State, regional, and local policies and regulations that apply to geology, soils, and seismicity.

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures used for human occupancy. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on top of the traces of active faults. Although the Act addresses the hazards associated with surface fault rupture, it does not address other earthquake-related hazards, such as seismically induced ground shaking or landslides.

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults, and to publish appropriate maps that depict these zones. The maps are then distributed to all affected cities, counties, and State agencies for their use in planning and controlling development. In general, construction within 50 feet of an active fault zone is prohibited.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, passed in 1990, addresses earthquake hazards other than surface fault rupture, including liquefaction and seismically induced landslides. Seismic hazard zones are mapped by the State Geologist to assist local governments in land use planning. The Act states that "it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety."¹ Section 2697(a) of the Act states that "cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard."²

¹ California Public Resources Code, Division 2, Chapter 7.8, Section 2691(c).

² California Public Resources Code, Division 2, Chapter 7.8, Section 2697(a).

California Building Code

The California Building Standards Code, also known as Title 24 of the California Code of Regulations (CCR), reflects various building criteria that have been derived from different sources. One of these sources is the International Building Code (IBC), a model building code adopted across the United States that has been modified to suit conditions in the State, thereby creating what is known as the California Building Code (CBC), or Part 2 of CCR Title 24. The CBC is updated every 3 years, and the current 2010 CBC took effect on January 1, 2011. The 2013 CBC is scheduled to go into effect in January 2014.

Local Regulations

Local Hazard Mitigation Plan

The City has prepared a Local Hazard Mitigation Plan (LHMP) to help prepare for and mitigate the effects of potential hazards in the city. The LHMP documents and plans for mitigation of natural and human-made hazards in Capitola, and it makes the City eligible for federal financial assistance related to natural hazards. The specific hazards covered in Capitola's LHMP are earthquakes and liquefaction, coastal storms and flooding, sea level rise, drought, windstorms, coastal erosion and bluff failure, tsunami, hazardous materials, wildfire, and landslides and mudflows.

Capitola Local Coastal Program

In 1976 the State legislature passed the California Coastal Act of 1976, transferring most of the authority vested in the California Coastal Commission by the Coastal Act to local governments through adoption and certification of "Local Coastal Programs." Local Coastal Programs (LCP) includes a local government's land use plan, zoning district maps, and other implementing actions that when taken together, meet the requirements of and implement the provisions and policies of the Coastal Act. An LCP reflects the coastal issues and concerns of the local jurisdiction and must be consistent with statewide policies of the Coastal Act. When certified, the LCP becomes legally binding on the City.

Capitola's Local Coastal Land Use Plan is a comprehensive long-term plan for land use and physical development within the city's coastal zone. Prior to the issuance of any permit for development within the coastal zone, the City of Capitola is required to prepare necessary findings that the development meets the standards set forth in all applicable land use policies.

Relevant Coastal Act policies pertaining to geology, soils, and seismicity include the following:

- Section 30253 New development shall:
 - Minimize risks to lie and property in areas of high geologic, flood and fire hazard.
 - Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

- Policy VII-1 It shall be the policy of the City of Capitola to adequately plan for natural hazards in new development, reduce risks to life and property, and revise all plans and Zoning Ordinances to be in conformance with all the policies of the Coastal Act relating to hazards and shoreline structures.
- Policy VII-2 All geologic/engineering reports required by the City pursuant to the policies of this component shall be prepared according to the guidelines for practice issued by the California Division of Mines and Geology, specifically CDMG notes Numbers 37 (Guidelines to Geologic/Seismic Reports), 43 (Recommended Guidelines for Determining the Maximum Probably Earthquakes), 44 (Recommended Guidelines for Preparing Engineering Geologic Reports) and interpretive Coastal Commission for BluffTop Development.
- Policy VIII-3 The City shall require all new building plans, for public use structures or multi-residential (more than three units), to conform with the Uniform Building Code construction standards.
- Policy VII-5 A geologic/engineering report which indicated methods of achieving structural stability and mitigation measures to prevent erosion shall be submitted for any structure which is to be constructed on a slope in excess of 30 percent.
- Policy VII-7 Bluff and clifftop development shall be approved only if design and setback provisions are adequate to assure stability and structural integrity for the expected economic lifespan (at least 50 years) of the development and if the development (including storm runoff, foot traffic, grading, and irrigation) will neither create nor contribute significantly to erosion problems or geologic instability of the site or surrounding are. This policy shall be carried out by requiring geologic reports as per Policy VII-8.
- Policy VII-8 A geologic/engineering report shall be submitted for any blufftop or cliff development proposed within 200 feet of the cliff edge.

The City may designate a lesser area of demonstration in specific areas of known geologic stability (as determined by adequate geologic evaluation and historic evidence) or where adequate protective works already exist. The City may designate a greater area of demonstration or exclude development entirely in areas of known high instability.

The geology report shall be prepared by a registered geologist or professional civil engineer with expertise in soils or foundation engineering or by a certified engineering geologist. The report shall consider and analyze any information required by Policy VII-2.

City of Capitola Municipal Code

Chapter 15.28, Excavation and Grading, of the City of Capitola Municipal Code (Municipal Code) establishes guidelines, rules, regulations, and minimum standards to control excavation, grading, clearing, erosion control, and maintenance, including cut and fill embankments; requires control of all existing and potential conditions of accelerated erosion; establishes administrative procedures for issuance of permits; and provides for approval of plans and inspections during construction and maintenance. Section 15.28.060, Permit application and requirements, requires each application for a permit include an engineering geology report, unless waived by the grading official, that describes the geology of the site; description of potential geologic hazards; conclusions and recommendations regarding the effects of geologic conditions on the proposed development; and opinions and recommendations covering the adequacy and stability of the geologic subsurface of cuts and fill loads to be

developed by the proposed grading. Recommendations included in the report, when approved by the grading official, shall be incorporated in the plans and specifications.

Municipal Code Chapter 17.48, Geologic Hazards District, is designed to inform property owners and potential property owners of lands which are located in areas containing geological hazards, including, but not limited to, floodplains, fault zones, known landslide areas, bluffs, tsunami inundation areas, and high liquefaction areas. Geologic/engineering reports are required for all developments located on a beach, bluff or cliff, special study zone pursuant to Public Resources Code Section 2622, landslide area, slope in excess of 30 percent or other areas of geologic hazards. All geologic/engineering reports required by this chapter shall be prepared according to the guidelines for practice issued by the California Division of Mines and Geology (CDMG), specifically, No. 37 Guidelines for Preparing Engineering Geological Reports and Coastal Commission Guidelines for Bluff Top Development. The required geological reports for all developments shall be prepared by a registered geologist or professional engineer with expertise in soils or foundations engineering, or by a certified engineering geologist.

4.5.1.2 EXISTING CONDITIONS

This section describes existing conditions in the Plan Area and in the surrounding area related to geology, soils, and seismicity.

Geologic Setting

The City of Capitola lies on a marine terrace incised by coastal streams including Soquel Creek. The Pliocene Purisima formation underlies the region and consists of interbedded siltstone and sandstone. This geologic unit strikes northwest and dips slightly southwest. Local outcrops of severely weathered soft, light grayish-brown sandstone can be found in the steeper, lower portions of the bluff west of Soquel Creek. The southwest to northeast orientation of the local shoreline is nearly parallel to the dominant direction of approach for refracted waves in the northern portion of Monterey Bay. As a result, littoral drift is rapid, inhibiting formation of a continuous protected beach. Instead, a series of pocket beaches, which are sensitive to seasonal change and human intervention, have formed. At New Brighton State Beach, the shoreline turns to a northwest to southwest orientation, which is more conducive to the formation of a wide, continuous beach.

Seismicity and Faults

Capitola is located in one of the most seismically active areas of the country. Significant earthquakes occur along well-defined, active faults zones that trend northwesterly. The regional faults of significance potentially affecting Capitola include the San Andreas, the Zayante, and the Palo Colorado-San Gregorio. The most probable seismic hazards to Capitola are from the San Andreas Fault, in the Santa Cruz Mountains, and the Palo Colorado-San Gregorio fault, further south. Seismic historical records of the area show that earthquakes of 6.5 to 7.0 magnitude occur periodically on the San Andreas Fault. The locations of the San Andreas and Zayante Faults are shown in Figure 4.5-1.



Source: United States Geological Survey, 1999 and RBF Consulting, 2011.

Figure 4.5-1 Regional Fault Zones The main trace of the San Andreas Fault is approximately 9 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 and measured 7.1 on the Richter scale. Ground shaking in Capitola from the 1989 Loma Prieta earthquake caused vertical and horizontal ground accelerations of 0.6 g and 0.54 g, respectively (where g = acceleration of gravity). The epicenter of the Loma Prieta earthquake was approximately 5 miles southeast of Capitola.

The Zayante fault is located approximately 5 miles northeast of Capitola and the Palo Colorado-San Gregorio is located approximately 14 miles southwest of Capitola. The CDMG and Geology 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 or more years.

Soil Liquefaction

Liquefaction, differential compaction of near surface soils, and lateral spreading can present seismic hazards during earthquakes. The potential for these hazards to occur are dependent on soil conditions and geologic patterns.

Soil liquefaction occurs when loose, saturated sandy soil deposits lose internal strength and transform from a solid to a liquefied state due to reduced stresses within the soils mass. The phenomenon is most often induced by strong ground shaking associated with earthquakes. Soils susceptible to liquefaction are sands of low to medium relative density, relatively free of silt and clay, and saturated. Liquefaction variables include duration of earthquake loading, earthquake acceleration, depth to groundwater, and the potential influence of man-mad structures.

Soil differential compaction occurs when an earthquake causes non-uniform compaction of the soil and movement of near-surface soils. Lateral spreading is a form of planar failure. It occurs in both soil and rock masses, when the soil mass strains along a weak plane and spreads toward an area of stress release, such as an open water body, channel, or excavation. As blocks free, the stress release regresses from the release area to the head. Failure is unpredictable due to uncertainty in the location of the first tension crack.

As shown in Figure 4.5-2, significant portions of Capitola have either a "High" or "Very High" potential for liquefaction. These areas generally extend eastward from Soquel Creek and along several drainages to the east. More specifically, areas identified as "Very High" include the northern end of Bay Avenue, including the Highway 1/Bay Avenue/Porter Avenue interchange, and a large portion of Capitola Village. Areas identified as "High" include the residential and commercial areas along the southern portion of Bay Avenue and along Capitola Avenue.

Landslides and Ground Failure

Landslides and slope instability are characterized by the movement of soils and surficial deposits, known as colluvium, and bedrock down steep slopes. This movement results from wet weather, adverse structures, seismic shaking, and/or improper grading and drainage. Based on State of California Department of Conservation and Santa Cruz County mapping data, Capitola does not contain areas that are designated as having landslide hazards. However, according to the LHMP, Capitola contains areas with slopes greater than 50 percent, which are



Source: Geology and Liquefaction Potential of Quaternary Deposits in Cruz County, William R. Dupre, 1975.

susceptible to landslides and mudflows; refer to Figure 4.5-3. 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 10 feet. 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. 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.

Soils and Soil Hazards

Table 4.5-1, identifies the types of soils within the Plan Area and their respective acreages. These soil map units are illustrated on Figure 4.5-4.

Shrink-Swell Potential

Certain types of soil are inherently expansive, meaning they expand and contract significantly as their water content fluctuates. This dynamic, known as "shrink-swell potential," can cause seasonal uplifting of structural foundations and roads, accompanied by significant and often dangerous cracking. It follows that soils with high shrink-swell potential have limitations as substrates for engineering and construction purposes. Soils with a moderate to high shrink/swell potential can damage foundations, flatwork, and pavements unless recognized and mitigated by appropriate design measures.

In Capitola, a majority of the soils consist of loam and sandy loam soils which have been characterized as welldrained alluvial soils with low permeability. Given these characteristics, they have a low shrink-swell potential.

In-Land Erosion Potential

Erosion is defined as the displacement of sediment, soil rock, and other solids by wind, water or down slope movement. The potential for erosion generally increases with steepness of slope, rainfall, and in areas where the protective soil and/or vegetation cover has been removed by fire or grading. In Capitola, erosion hazards outside of coastal areas are considered slight to nonexistent with vegetation coverage.

Coastal Erosion Potential

Capitola Beach

Capitola Beach is a gently rising beach. Because of the jetty located at the eastern edge, the beach has remained relatively stable. Seasonal changes cause the amount of sand to change whereby winter storms deplete the sand supply, which is then replenished during the summer months. Capitola has a source of funds from the California Coastal Commission to import sand when needed, however this has only been done once, in 2005.



Source: City of Capitola, 2010; Santa Cruz County, 2012.



Source: City of Capitola, 2010; Santa Cruz County, 2010.

Map Unit	Soil Name	Acres Within City Limits	Acres Within Sphere of Influence
104	Baywood Loam Sand, 0 to 2 percent slopes	6	<1
109	Beaches	10	15
124	Danville loam, 0 to 2 percent slopes	105	41
125	Danville loam, 2 to 9 percent slopes	16	0
129	Elder sandy loam, 0 to 2 percent slopes	14	0
130	Elder sandy loam, 2 to 9 percent slopes	14	0
133	Elkhorn sandy loam, 2 to 9 percent slopes	373	190
135	Elkhorn sandy loam, 15 to 30 percent slopes	59	0
136	Elkhorn-Pfeiffer complex, 30 to 50 percent slopes	8	11
162	Pinto loam, 2 to 9 percent slopes	22	12
170	Soquel loam, 0 to 9 percent slopes	59	0
171	Soquel loam, 2 to 9 percent slopes	15	0
174	Tierra-Watsonville complex, 15 to 30 percent slopes	38	2
176	Watsonville loam, 0 to 2 percent slopes	56	66
177	Watsonville loam, 2 to 15 percent slopes	187	68
178	Watsonville loam, thick surface, 0 to 2 percent slopes	36	240
179	Watsonville loam, thick surface, 2 to 15 percent slopes	6	45
185	Water	22	22

TABLE 4.5-1 CAPITOLA SOIL MAP UNITS

Source: Soil Survey of Santa Cruz County, California, prepared by the United States Department of Agriculture, Natural Resource Conservation Service, dated 2010.

Capitola Cliffs

Capitola's cliffs along Cliff Drive and the Depot Hill neighborhood have experienced very high levels of coastal erosion. These cliffs, typical along the northern coast of Monterey Bay, are characterized by gently dipping, late Tertiary sedimentary rocks that are generally overlain by nearly horizontal, Quaternary terrace deposits (primarily of Marine origin).

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.

Because erosion was threatening Cliff Drive, an important access road in and out of the Village, the bluff top was stabilized in the late 1990s. Riprap was also installed at the toe of the cliff to help reduce erosion potential. At

present, the cliff appears relatively stable. Capitola has identified a Capital Improvement Project to further stabilize the toe, which could include a proper seawall; however, this project remains unfunded.

The cliffs along the Depot Hill neighborhood, however, have been eroding for many years and have resulted in the closure of a portion of Grand Avenue to automobile travel, which parallels the edge of the cliff.

In 2004, the Depot Hill Seawall Draft EIR was prepared to analyze the potential environmental impacts of constructing a seawall along the base of the cliff. The project was part of a long-term strategy by homeowners known as the Geologic Hazards Abatement District. A description of the erosion conditions, as discussed in the EIR, is summarized below.

Due to the lack of a protective beach, surf erosion is an active process at the toe of the cliff. Although surf erosion is concentrated at the toe of the cliff, it eventually affects the entire sea cliff. Surf erosion at the toe of the cliff results in the removal of basal support for the slope. Secondary failure of the upper portions of the cliff follows as the lower support disappears.

The lower cliff fails by piecemeal, episodic rock falls of the Purisima Formation bedrock. Many of the failures are controlled by near-vertical bedrock joints oriented parallel to the coastline, as surf activity erodes a notch into the base of the cliff. Because the joints in the Purisima bedrock are located at intervals ranging between 5 and 25 feet, a given segment of the lower cliff face will remain essentially unchanged for several years and then will retreat five to 25 feet instantaneously as a result of a particularly large ocean storm. Along the 300 block of Grand Avenue, this notching action has been accentuated because weak, fossilferous lenses in the gently inclined Purisima Formation intersect the uppermost surf zone at this point. When this horizontal notch intercepts one of the near vertical joints in the bedrock, the undercut portion of the cliff face along the joint falls to the beach, temporarily armoring the base of the cliff. Wave activity then removes the debris. The rate of removal depends on the type and size of material (i.e., soil or rock), and wave and surf conditions.

Primary failure of the lower cliff face (Purisima bedrock) triggers a time-lagged, secondary failure of the upper cliff face (underlain by terrace deposits). The terrace deposits are weaker than the Purisima Formation and over the long term cannot maintain a slope much steeper than 33 degrees (the approximate angle of repose). Thus, when a portion of the lower cliff fails, the upper cliff becomes weak and thus fails gradually through piecemeal sloughing and slumping. Evidence of these processes can be seen at various points along the cliff edge. High groundwater levels, storm runoff, seismic shaking, and loading from human activity are some of the factors that can hasten this secondary failure of the upper bluff deposits.

Secondary failure of the upper cliff face commonly lags behind. In the short term, the retreat at the top edge tends to be somewhat less episodic than the retreat at the cliff toe. Given a long enough period, however, the average rate of retreat will be same for both the top and the bottom of the cliff. According to Rogers E. Johnson & Associates, the rate of bluff retreat in the 1990s has been about 0.5 feet per year. However, this rate of retreat may reflect a "lag effect" as there are several areas along the base of the bluff in the project area with deep

undercuts. Once the sandstone blocks above those undercuts fail, the short-term retreat rate will once again approximate the long-term average rate of 0.9 feet per year.³

At the historic rate of retreat (0.9 feet per year), the pedestrian pathway would be largely unusable within 10 to 15 years and the Grand Avenue right-of-way almost entirely gone (including County sanitary sewer lines) within 25 years. The first houses would be threatened or damaged in about 50 years, and most would be damaged or destroyed within about 75 years. After 100 years, some of the second-line houses would be threatened.

4.5.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact regarding geology and soils if it would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death

involving:

- Surface rupture along a known active fault, including those faults identified on recent Alquist-Priolo a. Earthquake Fault Zoning Maps issued by the State Geologist, or active faults identified through other means (i.e., site-specific geotechnical studies, etc.).
- b. Strong seismic ground shaking.
- Seismic-related ground failure, including liquefaction. c.
- d. Landslides.
- Result in substantial soil erosion or the loss of topsoil. 2.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, 3. and potentially result in on- or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse.
- 4. Be located on expansive soil, as defined in Table 18-1-b of the Uniform Building Code (1994), creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal 5. systems where sewers are not available for the disposal of wastewater.

³ Rogers E. Johnson & Associates, 2000, Geologic Investigation, Deport Hill Geologic Hazard Abatement District, Deport Hill Seawall.

4.5.3 ENVIRONMENTAL IMPACT DISCUSSION

GEO-1 The proposed Plan would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving surface rupture along a known active fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.

The proposed Plan would have a significant environmental impact if it would expose people or structures to potentially substantial adverse effects including the risk of loss, injury, or death involving surface rupture along a known active fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.

Fault Rupture

As stated, no Alquist-Priolo Earthquake Fault Zones have been identified within the Plan Area. Therefore, the risk of surface fault rupture within the Plan Area is considered low.

Strong Seismic Ground Shaking

Capitola is located in one of the most seismically active areas of the country. The Plan Area is subject to seismic ground shaking due to the close proximity and potential earthquake magnitude of the San Andreas, the Zayante, and the Palo Colorado-San Gregorio faults. The proposed Plan would allow for increased growth and development within the City, potentially exposing a greater number of people or structures to strong seismic ground-shaking. The intensity of groundshaking and degree of impact would depend upon the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the development site. Additionally, the soil and geologic structure underlying the development site would influence the amount of damage that the site may experience. Potential damage to existing and new structures cannot be precluded. Structural vulnerabilities in older buildings that are less earthquake resistant are most likely to contribute to the largest source of injury and economic loss, as a result of an earthquake. Damage to infrastructure, including roadways, bridges, water and wastewater lines, gas lines, power poles, storm drainage, and other public facilities, could also occur due to an earthquake event. Therefore, project implementation could result in significant impacts regarding the exposure of people and structures to potential substantial adverse effects involving strong seismic ground shaking.

Seismic-Related Ground Failure

Significant portions of Capitola have either a "High" or "Very High" potential for liquefaction; refer to Figure 4.5-2. Areas identified as "Very High" include the northern end of Bay Avenue, including the Highway 1/Bay Avenue/Porter Avenue interchange, and a large portion of Capitola Village. Areas identified as "High" include the residential and commercial areas along the southern portion of Bay Avenue and along Capitola Avenue. According to the California Geological Survey, lateral spreading is commonly induced by liquefaction of material during an earthquake. Given the high susceptibility to liquefaction within certain areas of the City, the potential for lateral spreading is also considered high. The proposed Plan would allow for increased growth and development within

the City. Therefore, project implementation could result in significant impacts regarding the exposure of people and structures to potential substantial adverse effects involving seismic-related ground failure.

Seismic-Related Landslides

Capitola contains areas with slopes greater than 50 percent, which are susceptible to landslides and mudflows; refer to Figure 4.5-3. 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 10 feet. Coastal bluff areas within Capitola that have steep topography include Cliff Drive and surrounding open space as well as shoreline residences and open space areas of the Depot Hill neighborhood, between the Village and New Brighton State Park. 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. The proposed Plan would allow for increased growth and development within the City. Therefore, project implementation could result in significant impacts regarding the exposure of people and structures to potential substantial adverse effects involving seismic-related landslides.

Conclusion

As stated, no Alquist-Priolo Earthquake Fault Zones have been established within the Plan Area. Thus, impacts associated with fault rupture are less than significant.

Numerous controls would be imposed on future developments/improvements through the City's permitting process, in order to lessen impacts associated with primary (i.e., seismic ground shaking and resultant failure of structures) and secondary (i.e., liquefaction, lateral spreading, subsidence, settlement, and landslides) hazards generated by earthquakes. In general, the City regulates development (and reduces potential impacts from seismic hazards) through compliance with the Municipal Code (i.e., Building and Zoning Codes), General Plan Goals, Policies, and Actions, and project-specific mitigation measures. The City's structures would be subject to compliance with the CBC, which include regulations for how buildings are designed, engineered, and constructed, and are intended to ensure the maximum structural integrity and safety of private and public buildings. Municipal Code Section 15.28.060 requires each application for a permit include an engineering geology report, unless waived by the grading official, that describes the geology of the site; description of potential geologic hazards; conclusions and recommendations covering the adequacy and stability of the geologic subsurface of cuts and fill loads to be developed by the proposed grading. Recommendations included in the report, when approved by the grading official, shall be incorporated in the plans and specifications.

Municipal Code Chapter 17.48 requires geologic/engineering reports for all developments located on a beach, bluff or cliff, special study zone pursuant to Public Resources Code Section 2622, landslide area, slope in excess of 30 percent or other areas of geologic hazards. All geologic/engineering reports are required to be prepared according to the guidelines for practice issued by the CDMG and Geology, specifically, No. 37 Guidelines for Preparing Engineering Geological Reports and Coastal Commission Guidelines for Bluff Top Development. The required geological reports for all developments shall be prepared by a registered geologist or professional engineer with expertise in soils or foundations engineering, or by a certified engineering geologist. The primary and secondary effects of earthquakes would be sufficiently mitigated for structures designed and constructed in conformance with the Municipal Code and industry-accepted engineering standards. Any future modifications to

buildings constructed prior to 1934 would be subject to compliance with the CBC, which would sufficiently mitigate potential impacts from seismic-related hazards. Future development/infrastructure would be designed to resist seismic forces in accordance with the criteria and seismic design parameters contained in the most current version of the CBC. Pursuant to Policy SN-2.1 and SN-2.2, the City would prohibit structural development in areas where seismic and geological hazards cannot be mitigated and monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated. Policy SN-2.9 would ensure the City continues to enforce all applicable requirements of the current California Building Code and the California Building Standards to minimize public exposure to seismic and geologic hazards. Additionally, the City of Capitola has adopted an LHMP, which is intended to help prepare for and mitigate the effects of potential hazards in the city, including codes, and public safety standards would reduce impacts associated with strong seismic ground shaking, seismic-related ground failure, and seismic-related landslides to less-than-significant levels.

Furthermore, the following goals, policies, and actions contained in the proposed Plan would ensure that new development projects under the proposed Plan would minimize seismic-related impacts:

- Goal SN-2 Minimize loss of life, injury, and property damage due to seismic and geologic hazards.
- Policy SN-2.1 Development Restrictions. Prohibit structural development in areas where seismic and geological hazards cannot be mitigated, e.g., unstable bluff edges.
- Policy SN-2.2 Mitigation. Monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.
- Policy SN-2.3 Seismic Analysis. Continue to incorporate seismic risk analysis into the City's on-going building inspection program.
- Policy SN-2.4 Bluff Erosion. Ensure that new development is located, designed, and maintained in a manner that reduces hazards resulting from bluff erosion.
- Policy SN-2.5 Retrofits. Encourage retrofitting of structures, particularly older buildings, to withstand earthquake shaking and landslides, consistent with State Building Codes and Historic Building Codes.
- Policy SN-2.6 Hazard Considerations. Continue to incorporate geotechnical hazard data into future land use decision-making, site design and construction standards.
- Policy SN-2.7 Public Outreach. Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.
- Policy SN-2.8 Critical Facilities and Services. Ensure that seismic hazards are mitigated to the greatest extent
 possible for critical public facilities, infrastructure, and emergency services.
- Policy SN-2.9 State Standards. Continue to enforce all applicable requirements of the current California Building Code and the California Building Standards to minimize public exposure to seismic and geologic hazards.
- Action SN-2.1 Funding. Identify funding sources to assist in necessary seismic upgrades to City facilities.

- Action SN-2.2 Transportation Infrastructure. Work with Caltrans, the Santa Cruz County Regional Transportation Commission, and other relevant agencies to ensure the seismic safety and structural integrity of all bridges and overpasses in Capitola.
- Action SN-2.3 Data Accuracy. Periodically review the General Plan, Zoning Ordinance, Subdivision Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic hazards is current and accurate.
- Action SN-2.4 URM Program. Continue the un-reinforced masonry (URM) program to retrofit all remaining non-complying buildings seeking structural building permits.

Applicable Regulations:

- Seismic Hazards Mapping Act
- California Code of Regulations, Title 24
- Local Coastal Program
- Capitola Municipal Code, Chapter 15.28 Excavation and Grading
- Capitola Municipal Code, Chapter 17.48 Geologic Hazards District
- Local Hazard Mitigation Plan

Development of the project would not expose people or structures to substantial adverse effects involving fault rupture, strong seismic ground shaking, or seismic-related ground failure and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

GEO-2 Implementation of the proposed Plan would not result in substantial soil erosion or the loss of topsoil.

Soil erosion can become a problem when human activities accelerate the rate at which soils are displaced. Sheet flow drainage, impervious surfaces (e.g., concrete or asphalt paving and structures), construction activities, and unpaved roads can all accelerate the rate at which soils are removed. Generally, the long-term effects of wind and water erosion, which occur on vacant properties, decrease as development and improvements are implemented. Erosion hazards outside of the coastal areas of Capitola are considered slight to nonexistent with vegetation coverage. In order to minimize soil erosion or the loss of topsoil, future development projects are subject to the requirements of Municipal Code Chapter 15.28, Grading and Excavation, which establishes design standards for erosion and sediment control. Potential soil erosion impacts associated with development within inland areas of the City would be reduced to less-than-significant levels.

Capitola Beach and Capitola's cliffs, along Cliff Drive and the Depot Hill neighborhood, have experienced high levels of coastal erosion. Although significant new development is not anticipated within these areas, implementation of the proposed Plan would allow for increased development within the city.

The City regulates development (and reduces potential impacts associated with geologic hazards) through compliance with the Municipal Code (i.e., Building and Zoning Codes), General Plan goals, policies, and actions,

and project-specific mitigation measures. Municipal Code Section 15.28.060 requires each application for a permit include an engineering geology report, unless waived by the grading official, that describes the geology of the site; description of potential geologic hazards; conclusions and recommendations regarding the effects of geologic conditions on the proposed development; and opinions and recommendations covering the adequacy and stability of the geologic subsurface of cuts and fill loads to be developed by the proposed grading. Recommendations included in the report, when approved by the grading official, shall be incorporated in the plans and specifications.

Municipal Code Chapter 17.48 requires geologic/engineering reports for all developments located on a beach, bluff or cliff, special study zone pursuant to Public Resources Code Section 2622, landslide area, slope in excess of 30 percent or other areas of geologic hazards. All geologic/engineering reports are required to be prepared according to the guidelines for practice issued by the CDMG, specifically, No. 37 Guidelines for Preparing Engineering Geological Reports and Coastal Commission Guidelines for Bluff Top Development. The required geological reports for all developments shall be prepared by a registered geologist or professional engineer with expertise in soils or foundations engineering, or by a certified engineering geologist.

Pursuant to Policy SN-2.4, new development would be required to be is located, designed, and maintained in a manner that reduces hazards resulting from bluff erosion. LCP Policy VII-7 requires bluff and clifftop development to be approved only if design and setback provisions are adequate to assure stability and structural integrity for the expected economic lifespan (at least 50 years) of the development and if the development (including storm runoff, foot traffic, grading, and irrigation) will neither create nor contribute significantly to erosion problems or geologic instability of the site or surrounding area. Policy VII-8 requires a geologic/engineering report be submitted for any blufftop or cliff development proposed within 200 feet of the cliff edge. Therefore, compliance with the City's Municipal Code and General Plan and LCP policies would reduce impacts associated with soil erosion to less-than-significant levels.

Furthermore, the following goals, policies, and actions contained in the proposed Plan would ensure that new development projects under the proposed Plan would minimize soil erosion impacts:

- Goal SN-2. Minimize loss of life, injury, and property damage due to seismic and geologic hazards.
- Policy SN-2.1 Development Restrictions. Prohibit structural development in areas where seismic and geological hazards cannot be mitigated, e.g., unstable bluff edges.
- Policy SN-2.2 Mitigation. Monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.
- Policy SN-2.4 Bluff Erosion. Ensure that new development is located, designed, and maintained in a manner that reduces hazards resulting from bluff erosion.
- Policy SN-2.6 Hazard Considerations. Continue to incorporate geotechnical hazard data into future land use decision-making, site design and construction standards.
- Policy SN-2.7 Public Outreach. Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.
- Policy SN-2.8 Critical Facilities and Services. Ensure that seismic hazards are mitigated to the greatest extent
 possible for critical public facilities, infrastructure, and emergency services.

- Policy SN-2.9 State Standards. Continue to enforce all applicable requirements of the current California Building Code and the California Building Standards to minimize public exposure to seismic and geologic hazards.
- Action SN-2.2 Transportation Infrastructure. Work with Caltrans, the Santa Cruz County Regional Transportation Commission, and other relevant agencies to ensure the seismic safety and structural integrity of all bridges and overpasses in Capitola.
- Action SN-2.3 Data Accuracy. Periodically review the General Plan, Zoning Ordinance, Subdivision
 Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic
 hazards is current and accurate.

Applicable Regulations:

- California Code of Regulations, Title 24
- Local Coastal Program
- Capitola Municipal Code, Chapter 15.28 Excavation and Grading
- Capitola Municipal Code, Chapter 17.48 Geologic Hazards District
- Local Hazard Mitigation Plan

Development of the project would not result in substantial soil erosion or the loss of topsoil and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

GEO-3 Development under the proposed Plan would not result in a significant impact related to development on unstable geologic units and soils or result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Based on State of California Department of Conservation and Santa Cruz County mapping data, Capitola does not contain areas that are designated as having landslide hazards. However, according to the Capitola Local Hazard Mitigation Plan (2013), Capitola does contain areas with slopes greater than 50 percent, which are susceptible to landslides and mudflows (see Figure 4.5-3). Additionally, significant portions of Capitola have either a "High" or "Very High" potential for liquefaction (see Figure 4.5-2). Given the high susceptibility to liquefaction within certain areas of the city, the potential for lateral spreading is also considered high.

The proposed Plan would allow for increased growth and development within the city. The City regulates development (and reduces potential impacts associated with geologic hazards) through compliance with the Municipal Code (i.e., Building and Zoning Codes), General Plan goals, policies, and actions, and project-specific mitigation measures. Municipal Code Section 15.28.060 requires each application for a permit include an engineering geology report. Municipal Code Chapter 17.48 requires geologic/engineering reports for all developments located on a beach, bluff or cliff, special study zone pursuant to Public Resources Code Section 2622, landslide area, slope in excess of 30 percent or other areas of geologic hazards. All geologic/engineering reports are required to be prepared according to the guidelines for practice issued by the CDMG, specifically, No.

37 Guidelines for Preparing Engineering Geological Reports and Coastal Commission Guidelines for Bluff Top Development. The required geological reports for all developments shall be prepared by a registered geologist or professional engineer with expertise in soils or foundations engineering, or by a certified engineering geologist.

Furthermore, the following goals, policies, and actions contained in the proposed Plan would ensure that new development projects under the proposed Plan would minimize impacts associated with development on unstable geologic units and soils, or related to landslide, lateral spreading, subsidence, liquefaction or collapse:

- Goal SN-2. Minimize loss of life, injury, and property damage due to seismic and geologic hazards.
- Policy SN-2.1 Development Restrictions. Prohibit structural development in areas where seismic and geological hazards cannot be mitigated, e.g., unstable bluff edges.
- Policy SN-2.2 Mitigation. Monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.
- Policy SN-2.3 Seismic Analysis. Continue to incorporate seismic risk analysis into the City's on-going building inspection program.
- Policy SN-2.4 Bluff Erosion. Ensure that new development is located, designed, and maintained in a manner that reduces hazards resulting from bluff erosion.
- Policy SN-2.5 Retrofits. Encourage retrofitting of structures, particularly older buildings, to withstand earthquake shaking and landslides, consistent with State Building Codes and Historic Building Codes.
- Policy SN-2.6 Hazard Considerations. Continue to incorporate geotechnical hazard data into future land use decision-making, site design and construction standards.
- Policy SN-2.7 Public Outreach. Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.
- Policy SN-2.8 Critical Facilities and Services. Ensure that seismic hazards are mitigated to the greatest extent possible for critical public facilities, infrastructure, and emergency services.
- Policy SN-2.9 State Standards. Continue to enforce all applicable requirements of the current California Building Code and the California Building Standards to minimize public exposure to seismic and geologic hazards.
- Action SN-2.1 Funding. Identify funding sources to assist in necessary seismic upgrades to City facilities.
- Action SN-2.2 Transportation Infrastructure. Work with Caltrans, the Santa Cruz County Regional Transportation Commission, and other relevant agencies to ensure the seismic safety and structural integrity of all bridges and overpasses in Capitola.
- Action SN-2.3 Data Accuracy. Periodically review the General Plan, Zoning Ordinance, Subdivision Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic hazards is current and accurate.

 Action SN-2.4 URM Program. Continue the un-reinforced masonry (URM) program to retrofit all remaining non-complying buildings seeking structural building permits.

Applicable Regulations:

- Seismic Hazards Mapping Act
- California Code of Regulations, Title 24
- Local Coastal Program
- Capitola Municipal Code, Chapter 15.28 Excavation and Grading
- Capitola Municipal Code, Chapter 17.48 Geologic Hazards District
- Local Hazard Mitigation Plan

Development of the project would not result in a significant impact related to development on unstable geologic units and soils or result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

GEO-4 Development under the proposed Plan would not create substantial risks to life or property as a result of its location on expansive soil.

Certain types of soil are inherently expansive, meaning they expand and contract significantly as their water content fluctuates. This dynamic, known as "shrink-swell potential," can cause seasonal uplifting of structural foundations and roads, accompanied by significant and often dangerous cracking.

In Capitola, a majority of the soils consist of loam and sandy loam soils which have been characterized as welldrained alluvial soils with low permeability. Given these characteristics, they have a low shrink-swell potential. Thus, impacts associated with expansive soils would be less than significant.

As stated, the City regulates development (and reduces potential impacts associated with geologic hazards) through compliance with the Municipal Code (i.e., Building and Zoning Codes), General Plan goals, policies, and actions, and project-specific mitigation measures. Compliance with the City's Municipal Code and General Plan policies would reduce impacts associated with expansive soils to less-than-significant levels.

Furthermore, the following goals, policies, and actions contained in the proposed Plan would ensure that new development projects under the proposed Plan would minimize impacts associated with development on potentially expansive soils:

- Goal SN-2. Minimize loss of life, injury, and property damage due to seismic and geologic hazards.
- Policy SN-2.1 Development Restrictions. Prohibit structural development in areas where seismic and geological hazards cannot be mitigated, e.g., unstable bluff edges.
- Policy SN-2.2 Mitigation. Monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.

- Policy SN-2.6 Hazard Considerations. Continue to incorporate geotechnical hazard data into future land use decision-making, site design and construction standards.
- Policy SN-2.7 Public Outreach. Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.
- Policy SN-2.9 State Standards. Continue to enforce all applicable requirements of the current California Building Code and the California Building Standards to minimize public exposure to seismic and geologic hazards.
- Action SN-2.3 Data Accuracy. Periodically review the General Plan, Zoning Ordinance, Subdivision
 Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic
 hazards is current and accurate.

Applicable Regulations:

- Seismic Hazards Mapping Act
- California Code of Regulations, Title 24
- Local Coastal Program
- Capitola Municipal Code, Chapter 15.28 Excavation and Grading
- Capitola Municipal Code, Chapter 17.48 Geologic Hazards District
- Local Hazard Mitigation Plan

Development of the project would not result in a significant impact related to development on expansive soils and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

GEO-5 Development under the proposed Plan would not result in impacts associated with the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.

Development within the Plan Area would not require the use of septic tanks or alternative wastewater disposal systems. Wastewater would be discharged into the existing public sanitary sewer system in the Plan Area, which is serviced by the Santa Cruz County Sanitary District, a non-profit public agency which provides sewage collection, treatment, and disposal services to the Live Oak, Capitola, Soquel, and Aptos areas. Thus, there would be no impact associated with the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater within the Plan Area.

Development of the project would not result in an impact related to the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater within the Plan Area and impacts would be *less than significant*

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

4.5.4 CUMULATIVE IMPACT DISCUSSION

GEO-6 The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to geology and soils.

The cumulative impacts analysis takes into consideration the past, present, and reasonably foreseeable projects within the Plan Area and surrounding area. Seismic, geologic, and soil conditions in the region would vary by location and their suitability for development would not be uniform. Future development sites may exhibit constraints to development that would be addressed at the geotechnical engineering level. Implementation of the proposed Plan combined with cumulative development projects would incrementally increase the number of people and/or structures potentially subject to a seismic or geologic hazard. Unsafe seismic, geologic, and soil conditions exist throughout the area and new development in such areas could result in potentially significant impacts. These potential impacts would be evaluated on a project-by-project basis in accordance with CEQA. Such exposure would be minimized through strict engineering guidelines for development at each respective development site. Future development would be subject to compliance with the provisions of Capitola's Municipal Code (i.e., Building and Zoning Codes), which would require geologic/engineering reports. Geologic/engineering reports would identify mitigation measures to be incorporated on a project-by-project basis, which would reduce potential cumulative seismic, geologic, and soil impacts to a less than significant level. If a specific site were determined to create a significant impact that could not be feasibly mitigated, the site would not be appropriate for development.

These processes, along with compliance with Safety Element goals, policies, and actions, federal and State laws, local building codes, and public safety standards would result in less than significant cumulative impacts related to potential seismic, geologic, and soil hazards. Therefore, the project's contribution to these impacts would not be cumulatively considerable and cumulative impacts associated with geology and soils within the region would be less than significant.

Furthermore, the following goals, policies, and actions contained in the proposed Plan would ensure that new development projects under the proposed Plan would minimize cumulative geology and soils impacts:

- Goal SN-2. Minimize loss of life, injury, and property damage due to seismic and geologic hazards.
- Policy SN-2.1 Development Restrictions. Prohibit structural development in areas where seismic and geological hazards cannot be mitigated, e.g., unstable bluff edges.
- Policy SN-2.2 Mitigation. Monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.

- Policy SN-2.3 Seismic Analysis. Continue to incorporate seismic risk analysis into the City's on-going building inspection program.
- Policy SN-2.4 Bluff Erosion. Ensure that new development is located, designed, and maintained in a manner that reduces hazards resulting from bluff erosion.
- Policy SN-2.5 Retrofits. Encourage retrofitting of structures, particularly older buildings, to withstand earthquake shaking and landslides, consistent with State Building Codes and Historic Building Codes.
- Policy SN-2.6 Hazard Considerations. Continue to incorporate geotechnical hazard data into future land use decision-making, site design and construction standards.
- Policy SN-2.7 Public Outreach. Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.
- Policy SN-2.8 Critical Facilities and Services. Ensure that seismic hazards are mitigated to the greatest extent
 possible for critical public facilities, infrastructure, and emergency services.
- Policy SN-2.9 State Standards. Continue to enforce all applicable requirements of the current California Building Code and the California Building Standards to minimize public exposure to seismic and geologic hazards.
- Action SN-2.1 Funding. Identify funding sources to assist in necessary seismic upgrades to City facilities.
- Action SN-2.2 Transportation Infrastructure. Work with Caltrans, the Santa Cruz County Regional Transportation Commission, and other relevant agencies to ensure the seismic safety and structural integrity of all bridges and overpasses in Capitola.
- Action SN-2.3 Data Accuracy. Periodically review the General Plan, Zoning Ordinance, Subdivision
 Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic
 hazards is current and accurate.
- Action SN-2.4 URM Program. Continue the un-reinforced masonry (URM) program to retrofit all remaining non-complying buildings seeking structural building permits.

Applicable Regulations:

- Seismic Hazards Mapping Act
- California Code of Regulations, Title 24
- Local Coastal Program
- Capitola Municipal Code, Chapter 15.28 Excavation and Grading
- Capitola Municipal Code, Chapter 17.48 Geologic Hazards District
- Local Hazard Mitigation Plan

Future development and redevelopment within the City under the proposed Plan will not result in significant cumulative impacts with respect to geology and soils and impacts in this regard are *less than significant*.

Significance Before Mitigation: Less than significant.

4.5.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan will not result in any significant Plan-specific or cumulative impacts to geology, soils, and seismicity and therefore no mitigation measures are required.
This chapter discusses existing conditions in the Plan Area and potentially significant impacts associated with the adoption and implementation of the proposed project related to hazardous materials, airport hazards, emergency response plans, and wildland fires. Potential impacts related to fire protection services other than wildland fires are discussed in Chapter 4.11, Public Services.

4.6.1 ENVIRONMENTAL SETTING

4.6.1.1 REGULATORY FRAMEWORK

This section summarizes existing federal, State, regional, and local policies and regulations that apply to hazards and hazardous materials.

Federal Programs and Regulations

The following federal agencies oversee hazards and hazardous materials concerns.

Environmental Protection Agency

The United States Environmental Protection Agency's (EPA) laws and regulations ensure the safe production, handling, disposal, and transportation of hazardous materials. Laws and regulations established by the EPA are enforced in Santa Cruz County by the California EPA.

U.S. Department of Transportation

Transportation of chemicals and hazardous materials are governed by the United States Department of Transportation (DOT), which stipulates the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) oversees administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets (MSDS) from materials manufacturers. Material safety data sheets describe the risks, as well as proper handling and procedures, related to particular hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

State Regulations

California Health and Safety Code and Code of Regulations

California Health and Safety Code Chapter 6.95 and Title 19 and Title 22, Division 4.5, of the California Code of Regulations set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on site. A business which uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities.

California Environmental Protection Agency

One of the primary agencies that regulates hazardous materials is the California Environmental Protection Agency (CalEPA), which is authorized by the EPA to enforce and implement federal hazardous materials laws and regulations. The Department of Toxic Substance Control (DTSC), a department of the CalEPA, protects California and Californians from exposure to hazardous waste, primarily under the authority of the federal Resource Conservation Recovery Act (RCRA) of 1976 and the California Health and Safety Code. DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans (HMBPs). DTSC programs include dealing with aftermath clean-ups of improper hazardous waste management; evaluation of samples taken from sites; enforcement of regulations regarding use, storage, and disposal of hazardous materials; and encouragement of pollution prevention. In addition, DTSC's School Property Evaluation and Cleanup Division is responsible for assessing, investigating, and cleaning up proposed school sites. The Division's goal is to ensure that proposed school properties are free of contamination or that they have been cleaned to a level that protects the students and staff who will occupy the new school. School sites that will receive State funding for acquisition or construction are required to go through an environmental review and cleanup process under DTSC's oversight.

California Division of Occupational Safety and Health

Like OSHA at the federal level, the California Division of Occupational Safety and Health (Cal OSHA) is the responsible State-level agency for ensuring workplace safety. Cal OSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a site is contaminated, a Site Safety Plan must be crafted and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or building.

California Building Code

The State of California provided a minimum standard for building design through the 2010 California Building Code (CBC), which is located in Part 2 of Title 24 of the California Code of Regulations. The 2010 CBC is based on the 2009 International Building Code, but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city and county building officials for compliance with the CBC.

Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

California Emergency Management Agency

The California Emergency Management Agency (CAL EMA) was established as part of the Governor's Office on January 1, 2009. CAL EMA was created by Assembly Bill 38 (Nava), which merged the duties, powers, purposes, and responsibilities of the former Governor's Office of Emergency Services with those of the Governor's Office of Homeland Security. Cal EMA is responsible for the coordination of overall state agency response to major disasters in support of local government. The agency is responsible for assuring the State's readiness to respond to and recover from all hazards, including natural and manmade emergencies and disasters as well as for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California. CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threat. Additionally, CAL FIRE produced a 2010 Strategic Fire Plan for California, which contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments.

California Fire Code (2010)

The CBC contains the California Fire Code (CFC), included as Part 9 of that title. Updated every 3 years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. The Central Fire Protection District provides fire protection services for the City of Capitola.

The California Department of Transportation

The California Department of Transportation (Caltrans) manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on those highway and freeway lanes and inter-city rail services.

State Water Resources Control Board

The Central Coast Regional Water Quality Control Board (RWQCB) is authorized by the State Water Resources Control Board (SWRCB) to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This act gives the Central Coast RWQCB authority to require groundwater investigations when the quality of groundwater or surface waters of the State is threatened and to require remediation actions, if necessary.

Materials-Specific Programs and Regulations

Asbestos-Containing Materials Regulations

State-level agencies, in conjunction with the federal EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing materials (ACMs). Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations and medical evaluation and monitoring is required for employees performing activities that could expose them to asbestos. Additionally, the regulations include warnings that must be heeded and practices that must be followed to reduce the risk for asbestos emissions and exposure. Finally, federal, State, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

Polychlorinated Biphenyls

The EPA prohibited the use of polychlorinated biphenyls (PCBs) in the majority of new electrical equipment starting in 1979 and initiated a phase-out for much of the existing PCB-containing equipment. The inclusion of PCBs in electrical equipment and the handling of those PCBs are regulated by the provisions of the Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq. (TSCA). Relevant regulations include labeling and periodic inspection requirements for certain types of PCB-containing equipment and outline highly specific safety procedures for their disposal. The State likewise regulates PCB-laden electrical equipment and materials contaminated above a certain threshold as hazardous waste; these regulations require that such materials be treated, transported, and disposed of accordingly. At lower concentrations for non-liquids, regional water quality control boards may exercise discretion over the classification of such wastes.

Lead-Based Paint

Cal OSHA's Lead in Construction Standard is contained in Title 8, Section 1532.1 of the California Code of Regulations. The regulations address permissible exposure limits (PELs); exposure assessment; compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical surveillance; medical removal protection (MRP); employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

Local Programs and Regulations

Santa Cruz County Department of Environmental Health Services

The Santa Cruz County Department of Environmental Health Services (DEHS) is the agency responsible for enforcing State hazardous materials and waste regulations in Capitola, including implementing actions required by the DTSC Certified Unified Program Agency (CUPA). This includes administration of the Hazardous Materials Business Plan Program, Hazardous Waste Generator Program, Underground Storage Tank (UST) Program, California Accidental Release Program, Tiered Permitting Program, and Aboveground Storage Tank Program.

Household hazardous waste is collected, free of charge, by the Santa Cruz County Hazardous Waste Program. The closest hazardous waste collection facility to Capitola is the Buena Vista Landfill, which is located approximately 15 miles south of Capitola off Buena Vista Drive.

Operational Area Emergency Management Plan

The Santa Cruz County Operational Area Emergency Management Plan establishes a comprehensive approach to managing emergency situations in Santa Cruz County, including prevention, preparedness, response, and recovery. The Operational Area Emergency Management Plan also identifies the organizational structure for emergency management responsibilities in the Santa Cruz County Operational Area. In addition, this Plan contains a threat summary for Santa Cruz County, which addresses the potential for natural, technological, and domestic security threats. Capitola is also within the region covered by the Bay Area Urban Area Security Initiative (UASI), which provides federal financial assistance for terrorism preparedness planning.

Local Hazard Mitigation Plan

The City has prepared a Local Hazard Mitigation Plan (LHMP) to help prepare for and mitigate the effects of potential hazards in the City. The LHMP documents and plans for mitigation of natural and human-made hazards in Capitola, and it makes the City eligible for federal financial assistance related to natural hazards. The specific hazards covered in Capitola's LHMP are earthquakes and liquefaction, coastal storms and flooding, sea level rise, drought, windstorms, coastal erosion and bluff failure, tsunami, hazardous materials, wildfire, and landslides and mudflows.

Capitola Local Coastal Program

In 1976 the State legislature passed the California Coastal Act of 1976, transferring most of the authority vested in the California Coastal Commission by the Coastal Act to local governments through adoption and certification of "Local Coastal Programs." Local Coastal Programs (LCP) include a local government's land use plan, zoning district maps, and other implementing actions that, when taken together, meet the requirements and implement the provisions and policies of the Coastal Act. An LCP reflects the coastal issues and concerns of the local jurisdiction and must be consistent with statewide policies of the Coastal Act. When certified, the LCP becomes legally binding on the City.

Capitola's Local Coastal Land Use Plan is a comprehensive long-term plan for land use and physical development within the City's coastal zone. Prior to the issuance of any permit for development within the coastal zone, the City of Capitola is required to prepare necessary findings that the development meets the standards set forth in all applicable Land Use policies.

Relevant Coastal Act policies pertaining to hazards and hazardous materials include the following:

Section 30232 – Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

City of Capitola Municipal Code

Chapter 8.42, Hazardous Materials, of the City of Capitola's Municipal Code (Capitola Municipal Code) adopts Chapter 7.100 (regarding Hazardous Materials) of the Santa Cruz County Code. Through County Code Chapter 7.100, it is the City's intent to foster the best available industrial processes and best available practical control technology to minimize or eliminate the use of hazardous materials in the City, and minimize or eliminate potential contamination by hazardous materials. This Chapter conditions any permitted use of hazardous materials by placing an obligation on the users to strictly control the discharges and releases. The City also requires that hazardous materials users monitor any discharges into the environment and keep records of the effectiveness of their hazardous materials management practices as a means of enforcing the obligations established by this Chapter. Through this County Code, the City also recognizes the community's right to know basic information on the use and storage of hazardous materials in the City and establishes an orderly system for the provision of such information.

4.6.1.2 EXISTING CONDITIONS

This section describes existing conditions in the Plan Area and in the surrounding area related to hazardous materials, airport hazards, and wildland fires.

Hazardous Materials

A "hazardous material" is defined by California Health and Safety Code Section 25501 as "any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment." Improper handling of hazardous materials or waste may result in significant impacts on human health and the environment. Many businesses and residents in the City use hazardous materials and generate some amount of hazardous waste. Common hazardous waste is generated from gasoline service stations, dry cleaners, automotive mechanics, auto body repair shops, machine shops, printers and photo processors, and agriculture.

Transport, Use, and Disposal of Hazardous Materials

Major transportation routes within the Plan Area include the Cabrillo Highway (Highway 1) and 41st Street. These transportation routes are used to transport hazardous materials from suppliers to users. Transportation accidents involving hazardous materials could occur on any of the routes, potentially resulting in explosions, physical contact by emergency response personnel, environmental degradation, and exposure to the public.

Known Hazardous Materials Sites

The majority of properties within the city containing hazardous materials are located along 41st Avenue. Additional concerns include Highway 1, railroad, oil spills, and the water treatment facility in the Jewel Box neighborhood (located between Capitola Village and 41st Avenue).

Cortese Database

Government Code Section 65962.5 (the Cortese Database) requires DTSC and the SWRCB to compile and update a regulatory sites listing (per the criteria of the Section). The State Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste. Multiple properties are listed on the Cortese Database maintained by the SWRCB pursuant to Government Code Section 65962.5.¹ No properties are listed by the DTSC, State Department of Health Services, or other local agencies pertaining to solid waste disposal facilities.²

The GeoTracker database is the SWRCB's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (e.g., USTs, Department of Defense sites, and Site Cleanup Program) as well as permitted facilities, such as operating USTs and land disposal sites. GeoTracker also contains well, tank, and pipeline data in California. Pursuant to the Cortese Database, 13 properties in Capitola have been listed by the SWRCB as a result of contamination. The facility, location, type of contamination, and status information about each of these sites is provided in Table 4.6-1. Of these 13 properties, three properties are leaking underground storage tank (LUST) cleanup sites that have not yet received case closure. One of these properties is an "other" cleanup site, which is also currently open.

Airport Hazards

There are no airports or private airstrips in the city. The nearest airport, the Monterey Bay Academy airstrip, is located approximately 6.5 miles southeast of the city. The Watsonville Municipal Airport, located in the City of Watsonville, is situated approximately 8 miles southeast of Capitola. Capitola is located outside the airport influence areas for both of these airports.

Wildland Fire Hazard

CAL FIRE evaluates fire hazard severity risks according to areas of responsibility (i.e., federal, State, and local). According to CAL FIRE, the eastern edge of the Plan Area is located in a High and Moderate fire hazard severity zone within a Local Responsibility Area (LRA), as shown on Figure 4.6-1. These areas contain significant vegetation, in particular large stands of Eucalyptus trees in and around New Brighton State Park and along Park Avenue. These trees are highly flammable due to the large amounts of leaf litter on the ground and the oil content of the leaves.

¹ California Environmental Protection Agency, http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm, accessed on August 29, 2013.

² California Environmental Protection Agency, http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm, accessed on August 29, 2013.



Source: Fire and Resource Assessment Program, California Department of Forestry & Fire Protection, September 17, 2007.

Name	Address	Туре	Status
Former Exxon 7-3604	836 Bay Avenue	LUST Cleanup Site	Completed – Case Closed
Soquel Pump Station	809 Bay Avenue	LUST Cleanup Site	Completed – Case Closed
San Lorenzo Lumber Co	2435 41st Avenue	LUST Cleanup Site	Completed – Case Closed
BP No. 11240	2178 41st Avenue	LUST Cleanup Site	Open – Eligible for Closure
Tosco Service Station #4902	2255 41st Avenue	LUST Cleanup Site	Completed – Case Closed
Capitola Pumping Station	End of Esplanade	LUST Cleanup Site	Completed – Case Closed
Capitola Mall/Brown Bulb Ranch	41 st Avenue	LUST Cleanup Site	Completed – Case Closed
BP Oil Facility No. 11240	2178 41st Avenue	LUST Cleanup Site	Completed – Case Closed
Redtree Properties	819 Bay Avenue	LUST Cleanup Site	Open – Eligible for Closure
Chevron Station	600 Bay Avenue	LUST Cleanup Site	Completed – Case Closed
Capitola Corporation Yard	430 Kennedy Drive	LUST Cleanup Site	Completed – Case Closed
Shell Service Station	1649 41 st Avenue	LUST Cleanup Site	Completed – Case Closed
Noble Gulch Storm Drain	370 Bay Avenue	Other Cleanup Sites	Open - Assessment and Interim Remedial Action

 TABLE 4.6-1
 HAZARDOUS MATERIALS SITES IN CAPITOLA

Note: LUST= Leaking Underground Storage Tank; Bold = Open Case Status.

Source: California Environmental Protection Agency, http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm, accessed on August 29, 2013.

4.6.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact regarding hazards and hazardous materials if it would:

- 1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 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.
- 3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¹/₄-mile of an existing or proposed school.
- 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, create a significant hazard to the public or the environment.
- 5. Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, result in a safety hazard for people residing or working in the Project Area.

- 6. Be within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the Project Area.
- 7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- 8. 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.

4.6.3 ENVIRONMENTAL IMPACT DISCUSSION

HAZ-1 The proposed Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

A number of facilities currently operate within the City of Capitola that use, store, or dispose of hazardous materials. These operations, if improperly designed or managed, could create a significant hazard to the public or the environment through the routine transport, use, or disposal of such materials. However, compliance with applicable federal, State, and local laws and regulations described above in Section 4.6.1.1 regarding the handling of these materials minimize this risk.

The proposed Plan also includes the following goals, policies, and actions that are intended to further minimize this risk:

- Goal SN-4. Protect the community from the harmful effects of hazardous materials.
- Policy SN-4.1 Mitigation Processes. Mitigate hazard exposure from new development projects through the environmental review process, design criteria, and standards enforcement.
- Policy SN-4.3 Sensitive Receptors. Prohibit land uses and development that emit obnoxious odors, particulates, light glare, or other environmentally sensitive contaminants from being located near schools, community centers, senior homes, and other sensitive receptors.
- Policy SN-4.4 Green Building. Encourage green building practices that reduce potentially hazardous construction materials.
- Policy SN-4.5 County Coordination. Continue to coordinate with the Santa Cruz County Department of Environmental Health Services on enforcement of State and local statutes and regulations pertaining to hazardous materials and waste storage, use, and disposal.
- Action SN-4.1 City Staff Training. Provide ongoing training for appropriate City personnel in hazardous materials response and handling.
- Action SN-4.2 Municipal Code Review. Review Chapter 7.100 (Hazardous Materials) of the Santa Cruz County Code, which is incorporated by reference into the Capitola Municipal Code; determine whether these provisions remain appropriate for Capitola; and amend them as needed.

Applicable Regulations:

- DOT Hazardous Materials Transport Act-Code of Federal Regulations (CFR) 49
- EPA Resource Conservation and Recovery Act (RCRA)
- EPA Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- Cal OSHA
- California Health and Safety Code (Chapters 6.95 and 19)
- California Code of Regulations (Section 2729)
- California Building Code
- DEHS (CUPA Program)
- Capitola Municipal Code (Chapter 8.42)

Development under the Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

HAZ-2 The proposed Plan would not 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.

The proposed Plan would facilitate new development, including residential, commercial, and mixed-use, within the city. Some new development, particularly in non-residential areas, could occur on properties that could be contaminated. Construction of new buildings and improvements would have the potential to release potentially hazardous materials, including contaminated soils, into the environment during site grading and excavation operations. Similarly, demolition of existing structures would potentially result in the release of hazardous building materials (e.g., asbestos, lead paint) into the environment. Use of hazardous materials after construction could potentially include cleaning solvents, fertilizers, pesticides, and other materials used in the regular maintenance and operation of the proposed uses.

However, compliance with applicable federal, State, and local laws and regulations regarding handling of these materials (described in Section 4.6.1.1) would minimize the release of hazardous materials into the environment. The proposed Plan also includes the following goals, policies, and actions that are intended to further minimize this risk:

- Goal SN-4. Protect the community from the harmful effects of hazardous materials.
- Policy SN-4.1 Mitigation Processes. Mitigate hazard exposure from new development projects through the environmental review process, design criteria, and standards enforcement.
- Policy SN-4.2 Site Assessments. Where deemed necessary, based on the history of land use, require site assessments for hazardous and toxic soil contamination prior to approving development project applications.

- Policy SN-4.3 Sensitive Receptors. Prohibit land uses and development that emit obnoxious odors, particulates, light glare, or other environmentally sensitive contaminants from being located near schools, community centers, senior homes, and other sensitive receptors.
- Policy SN-4.4 Green Building. Encourage green building practices that reduce potentially hazardous construction materials.
- Policy SN-4.5 County Coordination. Continue to coordinate with the Santa Cruz County Department of Environmental Health Services on enforcement of State and local statutes and regulations pertaining to hazardous materials and waste storage, use, and disposal.
- Action SN-4.1 City Staff Training. Provide ongoing training for appropriate City personnel in hazardous materials response and handling.
- Action SN-4.2 Municipal Code Review. Review Chapter 7.100 (Hazardous Materials) of the Santa Cruz County Code, which is incorporated by reference into the Capitola Municipal Code; determine whether these provisions remain appropriate for Capitola; and amend them as needed.
- Goal SN-5. Maintain effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.
- Policy SN-5.1 Coordination with Other Agencies. Coordinate preparation efforts for natural and human-made disasters with the Santa Cruz County Office of Emergency Services, neighboring jurisdictions, and other governmental agencies.
- Policy SN-5.2 Community Groups. Support the efforts of neighborhood and civic organizations to prepare for disasters.
- Policy SN-5.3 Emergency and Evacuation Routes. Maintain a current and complete system of emergency and evacuation routes serving all areas of the city.
- Policy SN-5.4 Urban Area Security Initiative. Continue to coordinate with the Bay Area Urban Area Security Initiative to enhance preparedness efforts.
- Action SN-5.1 Emergency Response Plan. Work with the Santa Cruz County Emergency Services Administrator to periodically review the Countywide Emergency Response Plan and revise as needed to ensure adequate disaster preparedness.
- Action SN-5.2 County Preparedness Exercises. Continue to participate in Santa Cruz County Office of Emergency Services preparedness exercises and disaster simulations.
- Action SN-5.3 Preparedness Training. Continue to provide basic training for all City employees in disaster preparedness, first aid, and cardiopulmonary resuscitation (CPR).
- Action SN-5.4 Preparedness Outreach. Periodically provide disaster preparedness information to residents through City newsletters, eNotify, information booths at public events, newspaper articles, or other methods. Information should address emergency supplies, training, evacuation routes, communication systems, shelter locations, and other similar topics.

- Action SN-5.5 Critical Facilities. Continue to study opportunities to relocate police, fire, and other first responders out of flood hazard areas.
- Action SN-5.6 Local Hazard Mitigation Plan. Periodically review Capitola's Local Hazard Mitigation Plan and amend as needed to reflect changed conditions and new information.

Applicable Regulations:

- CalEPA (State's Environmental Protection Laws)
- DTSC (2011-2016 Strategic Plan)
- RWQCB (Porter-Cologne Water Quality Control Act)
- California Health and Safety Code (Chapter 6.95 and 19)
- DEHS (CUPA Program)
- Capitola Municipal Code (Chapter 8.42)

Development under the Plan would not 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 and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

HAZ-3 The proposed Plan would not result in significant impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.

New Brighton Middle School and Opal Cliff's Elementary School are located within the Plan Area. Both of these school sites are surrounded by residential neighborhoods and are located more than ¹/₄-mile from any existing or planned non-residential land uses.

While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to maintain risk at acceptable levels. Compliance with measures established by federal, State, and local regulatory agencies are considered adequate to offset the negative effects related to the use, storage, emission, and transport of hazardous materials at future development sites within ¹/₄-mile of a school. The proposed Plan also includes the following goals, policies, and actions that are intended to further minimize this risk:

- Goal SN-4. Protect the community from the harmful effects of hazardous materials.
- Policy SN-4.1 Mitigation Processes. Mitigate hazard exposure from new development projects through the environmental review process, design criteria, and standards enforcement.
- Policy SN-4.2 Site Assessments. Where deemed necessary, based on the history of land use, require site
 assessments for hazardous and toxic soil contamination prior to approving development project applications.

- Policy SN-4.3 Sensitive Receptors. Prohibit land uses and development that emit obnoxious odors, particulates, light glare, or other environmentally sensitive contaminants from being located near schools, community centers, senior homes, and other sensitive receptors.
- Policy SN-4.4 Green Building. Encourage green building practices that reduce potentially hazardous construction materials.
- Policy SN-4.5 County Coordination. Continue to coordinate with the Santa Cruz County Department of Environmental Health Services on enforcement of State and local statutes and regulations pertaining to hazardous materials and waste storage, use, and disposal.
- Action SN-4.1 City Staff Training. Provide ongoing training for appropriate City personnel in hazardous
 materials response and handling.
- Action SN-4.2 Municipal Code Review. Review Chapter 7.100 (Hazardous Materials) of the Santa Cruz County Code, which is incorporated by reference into the Capitola Municipal Code; determine whether these provisions remain appropriate for Capitola; and amend them as needed.
- Goal SN-5. Maintain effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.
- Policy SN-5.1 Coordination with Other Agencies. Coordinate preparation efforts for natural and human-made disasters with the Santa Cruz County Office of Emergency Services, neighboring jurisdictions, and other governmental agencies.
- Policy SN-5.2 Community Groups. Support the efforts of neighborhood and civic organizations to prepare for disasters.
- Policy SN-5.3 Emergency and Evacuation Routes. Maintain a current and complete system of emergency and evacuation routes serving all areas of the city.
- Policy SN-5.4 Urban Area Security Initiative. Continue to coordinate with the Bay Area Urban Area Security Initiative to enhance preparedness efforts.
- Action SN-5.1 Emergency Response Plan. Work with the Santa Cruz County Emergency Services Administrator to periodically review the Countywide Emergency Response Plan and revise as needed to ensure adequate disaster preparedness.
- Action SN-5.2 County Preparedness Exercises. Continue to participate in Santa Cruz County Office of Emergency Services preparedness exercises and disaster simulations.
- Action SN-5.3 Preparedness Training. Continue to provide basic training for all City employees in disaster preparedness, first aid, and cardiopulmonary resuscitation (CPR).
- Action SN-5.4 Preparedness Outreach. Periodically provide disaster preparedness information to residents through City newsletters, eNotify, information booths at public events, newspaper articles, or other methods. Information should address emergency supplies, training, evacuation routes, communication systems, shelter locations, and other similar topics.

- Action SN-5.5 Critical Facilities. Continue to study opportunities to relocate police, fire, and other first responders out of flood hazard areas.
- Action SN-5.6 Local Hazard Mitigation Plan. Periodically review Capitola's Local Hazard Mitigation Plan and amend as needed to reflect changed conditions and new information.

Applicable Regulations:

- DTSC (School Property Evaluation and Cleanup Program)
- California Department of Education (School Facility)

Development under the Plan would not create a significant associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within ¹/₄-mile of an existing or proposed school and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

HAZ-4 Implementation of the Plan would not create a significant hazard to the public or the environment as a result of development on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

As discussed in Section 4.6.1 above, a number of sites in the city are listed on the Cortese Database, compiled pursuant to Government Code Section 65962.5. Some of the sites are listed as closed, indicating that they have been investigated and/or remediated to the satisfaction of the lead responsible agency (i.e., RWQCB, DTSC, or DEHS).

The proposed Plan would facilitate new development, including residential, commercial, and mixed use within the city. Some of the new development could occur on properties that could be contaminated. Construction of new buildings and improvements would have the potential to release potentially hazardous materials, including contaminated soils, into the environment during site grading and excavation. Similarly, demolition of existing structures would potentially result in the release of hazardous building materials into the environment. However, compliance with applicable federal, State, and local laws and regulations regarding cleanup and reuse of a listed hazardous materials site, described above in Section 4.6.1.1, would minimize the risk of creating a significant hazard to the public or the environment. Additionally, the proposed Plan includes the following goals, policies, and actions, which are intended to further minimize this risk:

- Goal SN-4. Protect the community from the harmful effects of hazardous materials.
- Policy SN-4.1 Mitigation Processes. Mitigate hazard exposure from new development projects through the environmental review process, design criteria, and standards enforcement.
- Policy SN-4.2 Site Assessments. Where deemed necessary, based on the history of land use, require site assessments for hazardous and toxic soil contamination prior to approving development project applications.

- Policy SN-4.5 County Coordination. Continue to coordinate with the Santa Cruz County Department of Environmental Health Services on enforcement of State and local statutes and regulations pertaining to hazardous materials and waste storage, use, and disposal.
- Action SN-4.2 Municipal Code Review. Review Chapter 7.100 (Hazardous Materials) of the Santa Cruz County Code, which is incorporated by reference into the Capitola Municipal Code; determine whether these provisions remain appropriate for Capitola; and amend them as needed.

Applicable Regulations:

- CalEPA (State's Environmental Protection Laws)
- DTSC (2011-2016 Strategic Plan)
- RWQCB (Porter-Cologne Water Quality Control Act)
- California Health and Safety Code (Chapter 6.95 and 19)
- DEHS (CUPA Program)
- Capitola Municipal Code, Chapter 8.42

Development under the Plan would not result in a significant hazard to the public or the environment as a result of development on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

HAZ-5 Implementation of the proposed Plan would not result in a safety hazard for people residing or working in the area due to development within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

As described above in Section 4.6.2, there are no public use airports within the Plan Area. The nearest public airport, the Watsonville Municipal Airport, is located in the City of Watsonville, approximately 8 miles southeast of the city. Capitola is located outside of the airport influence area for this airport. Given the distance from the nearest public use airport, the Plan Area is not subject to any airport safety hazards. The proposed Plan would not have an adverse effect on aviation safety or flight patterns.

Applicable Regulations:

None

Capitola is not located within an airport plan area and there is no airport located within 2 miles of the Plan Area. Therefore, *no impacts* would occur.

Significance Before Mitigation: No impact.

HAZ-6 Implementation of the proposed Plan would not result in a safety hazard for people residing or working in the Plan Area due to development in the vicinity of a private airstrip.

There are no private airstrips within or in the near vicinity of the Plan Area. The nearest airstrip, the Monterey Bay Academy airstrip, is located approximately 6.5 miles southeast of the city. Given the distance of Capitola from this airstrip, there will be no associated impact from implementation of the proposed Plan.

Applicable Regulations:

None

The Plan Area is not located in the vicinity of a private airstrip. Thus, no impact would occur.

Significance Before Mitigation: No impact.

HAZ-7 The proposed Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

As described above in Section 4.6.1, the Santa Cruz County Operational Area Emergency Management Plan establishes a comprehensive approach to the organizational structure and emergency management responsibilities in Santa Cruz County, including prevention, preparedness, response, and recovery. Capitola is also within the region covered by the Bay Area Urban Area Security Initiative (UASI), which provides federal financial assistance for terrorism preparedness planning. The proposed Plan also includes the following goals, policies and actions to minimize conflicts with emergency operations in the Plan Area:

- Goal SN-5 Maintain effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.
- Policy SN-5.1 Coordination with Other Agencies. Coordinate preparation efforts for natural and human-made disasters with the Santa Cruz County Office of Emergency Services, neighboring jurisdictions, and other governmental agencies.
- Policy SN-5.2 Community Groups. Support the efforts of neighborhood and civic organizations to prepare for disasters.
- Policy SN-5.3 Emergency and Evacuation Routes. Maintain a current and complete system of emergency and evacuation routes serving all areas of the city.
- Policy SN-5.4 Urban Area Security Initiative. Continue to coordinate with the Bay Area Urban Area Security Initiative to enhance preparedness efforts.
- Action SN-5.1 Emergency Response Plan. Work with the Santa Cruz County Emergency Services Administrator to periodically review the Countywide Emergency Response Plan and revise as needed to ensure adequate disaster preparedness.
- Action SN-5.2 County Preparedness Exercises. Continue to participate in Santa Cruz County Office of Emergency Services preparedness exercises and disaster simulations.

- Action SN-5.3 Preparedness Training. Continue to provide basic training for all City employees in disaster preparedness, first aid, and cardiopulmonary resuscitation (CPR).
- Action SN-5.4 Preparedness Outreach. Periodically provide disaster preparedness information to residents through City newsletters, eNotify, information booths at public events, newspaper articles, or other methods. Information should address emergency supplies, training, evacuation routes, communication systems, shelter locations, and other similar topics.
- Action SN-5.5 Critical Facilities. Continue to study opportunities to relocate police, fire, and other first responders out of flood hazard areas.
- Action SN-5.6 Local Hazard Mitigation Plan. Periodically review Capitola's Local Hazard Mitigation Plan and amend as needed to reflect changed conditions and new information.

Applicable Regulations:

- Cal EMA (Strategic Plan 2010-2015)
- Operational Area Emergency Management Plan

Development under the Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts will be *less than significant*.

Significance Before Mitigation: Less than significant.

HAZ-8 Implementation of the proposed Plan would not 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.

According to CAL FIRE, the eastern edge of the Plan Area is located in a High and Moderate fire hazard severity zone within a Local Responsibility Area (LRA), as shown in Figure 4.6-1. These areas contain significant vegetation, in particular large stands of Eucalyptus trees in and around New Brighton State Park and along Park Avenue. These trees are highly flammable due to the large amounts of leaf litter on the ground and the oil content of the leaves.

Future development in the Plan Area would be constructed pursuant to the CBC, CFC, and the Capitola Municipal Code. The following proposed Plan goals, policies, and actions would further minimize risks involving wildland fires:

- Goal SN-3 Protect lives and property from risks associated with urban fires.
- Policy SN-3.1 Cooperative Agreements. Maintain cooperative fire protection and fire prevention agreements with the Central Fire Protection District of Santa Cruz County.
- Policy SN-3.2 Public Education. Continue to support the Central Fire Protection District fire safety and fire
 prevention public education programs.
- Policy SN-3.3 City-Owned Space. Maintain City-owned open space in a manner that minimizes fire hazards.

- Policy SN-3.4 Development Review. Encourage early review of proposed development project plans by the Central Fire Protection District.
- Policy SN-3.5 Fire Hazard Risk Assessment. Ensure that the development project review process addresses fire risk, including an assessment of both construction- and project-related fire risks, particularly in areas with significant amounts of vegetation.
- Policy SN-3.6 Fire Safety Plans. Continue to review fire safety plans for new development within designated wildland/urban interface areas. Fire safety plans shall address emergency access site design for maintenance of defensible space, and use of non-combustible materials, as requjired by California Public Resources Code (PRC) 4290 and 4291..
- Policy SN-3.7 District Support. Support Central Fire Protection District efforts to minimize fire hazards through the removal of vegetation, hazardous structures and materials, and debris.
- Action SN-3.1 Invasive Species. Consistent with California Department of Forestry and Fire Protection to reduce any identified significant fire threat resulting from invasive species such as eucalyptus groves, which are not a constituent of protected habitat areas.
- Action SN-3.2 Sign/Address Marking Visibility. Monitor the visibility of road signs and address markings of businesses and residences, and address visibility issues to maximize fire response times.
- Action SN-3.3 Emergency Access. Coordinate with public safetey providers to implement feasible improvements and/or access plans for roadways with identified fire and emergency access deficiencies.
- Goal SN-5 Maintain effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.
- Policy SN-5.1 Coordination with Other Agencies. Coordinate preparation efforts for natural and human-made disasters with the Santa Cruz County Office of Emergency Services, neighboring jurisdictions, and other governmental agencies.
- Policy SN-5.2 Community Groups. Support the efforts of neighborhood and civic organizations to prepare for disasters.
- Policy SN-5.3 Emergency and Evacuation Routes. Maintain a current and complete system of emergency and evacuation routes serving all areas of the city.
- Policy SN-5.4 Urban Area Security Initiative. Continue to coordinate with the Bay Area Urban Area Security Initiative to enhance preparedness efforts.
- Action SN-5.1 Emergency Response Plan. Work with the Santa Cruz County Emergency Services Administrator to periodically review the Countywide Emergency Response Plan and revise as needed to ensure adequate disaster preparedness.
- Action SN-5.2 County Preparedness Exercises. Continue to participate in Santa Cruz County Office of Emergency Services preparedness exercises and disaster simulations.

- Action SN-5.3 Preparedness Training. Continue to provide basic training for all City employees in disaster preparedness, first aid, and cardiopulmonary resuscitation (CPR).
- Action SN-5.4 Preparedness Outreach. Periodically provide disaster preparedness information to residents through City newsletters, eNotify, information booths at public events, newspaper articles, or other methods. Information should address emergency supplies, training, evacuation routes, communication systems, shelter locations, and other similar topics.
- Action SN-5.5 Critical Facilities. Continue to study opportunities to relocate police, fire, and other first responders out of flood hazard areas.
- Action SN-5.6 Local Hazard Mitigation Plan. Periodically review Capitola's Local Hazard Mitigation Plan and amend as needed to reflect changed conditions and new information.

Applicable Regulations:

- California Fire Code (Part 9 CCR)
- California Building Code (Part 2 CCR)
- CAL FIRE (2010 Strategic Fire Plan)
- Capitola Municipal Code (Chapter 8.42)

Development under the Plan would not 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. Therefore, impacts would be *less than significant*.

Significance Before Mitigation: Less than significant.

4.6.4 CUMULATIVE IMPACT DISCUSSION

HAZ-9 The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to hazards and hazardous materials.

The analysis of cumulative hazards and hazardous materials impacts considers the larger context of future development within the city. Cumulative impacts can occur when impacts that are significant or less than significant from a project combine with similar impacts from other past, present, or reasonably foreseeable future projects in the same geographic area.

As discussed previously, future development within the city requires compliance with federal, State, and local regulations to ensure that potential contamination or exposure to hazardous materials is avoided or controlled to minimize the risk to the public or the environment on a case-by-case basis. The proposed Plan goals, policies, and actions, as listed topically in HAZ-1 through HAZ-8, will further ensure that future development in the city does not contribute to a cumulative increase in risk associated with hazards or hazardous materials.

Applicable Regulations:

- DOT Hazardous Materials Transport Act (CFR 49)
- EPA RCRA/CERCLA
- California Health and Safety Code (Chapters 6.95 and 19)
- California Code of Regulation (Section 2729)
- California Building Code
- CalEPA (State's Environmental Protection Laws)
- DTSC (2011-2016 Strategic Plan)
- RWQCB (Porter-Cologne Water Quality Control Act)
- DEHS (CUPA Program)
- Capitola Municipal Code

Development under the Plan, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to hazards and hazardous materials and impacts will be *less than significant*.

Significance Before Mitigation: Less than significant.

4.6.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant project-specific or cumulative impacts related to hazards and/or hazardous materials upon implementation of the federal, State, and local laws and regulations as well as the proposed Plan goals, policies, and actions and, therefore, no mitigation measures are required.

4.7 HYDROLOGY AND WATER QUALITY

This chapter discusses the regulatory framework, existing conditions and impacts of the proposed Plan related to hydrology and water quality.

4.7.1 ENVIRONMENTAL SETTING

4.7.1.1 REGULATORY FRAMEWORK

This section summarizes existing federal, State, regional, and local policies and regulations that apply to hydrology and water quality.

Federal Programs and Regulations

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. FEMA's minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

Minimum NFIP floodplain management building requirements are applicable to some properties in the Plan Area per Volume 44 Code of Federal Regulations, Sections 59 through 65. As required by these regulations, all buildings constructed within a riverine floodplain (i.e., Flood Zones A, AO, AH, AE, and A1 through A30, as delineated on the FIRM) must be elevated so that the lowest floor is at or above the base flood elevation level in accordance with the effective FIRM. Also, if the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any development must not increase base flood elevation levels. The term "development" is defined by FEMA as any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials. Per these regulations, if development, and must demonstrate that the development does not cause any rise in base flood elevation levels, as no rise is permitted within regulatory floodways.

All buildings constructed within a coastal high hazard area, defined as any of the "V" Flood Zones as delineated on the FIRM, must be elevated on pilings and columns so that the lowest horizontal structural member, excluding the pilings and columns, is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision, as soon as practicable, but not later than six months after such data becomes available.

Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA, codified at 33 U.S.C. Sections 1251-1376) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA, as well as the states. Various elements of the CWA address water quality, and they are discussed below. Wetland protection elements, including permits to dredge or fill wetlands, are administered by the U.S. Army Corps of Engineers (Corps) under Section 404 of the CWA.

Under Section 401 of the CWA, an applicant for a Section 404 permit to discharge dredged or fill material into waters of the United States must first obtain a certificate from the appropriate State agency stating that the fill is consistent with the State's water quality standards and criteria. In addition, a Water Quality Certification must be sought for any activity that would result in the placement of structures in waters of the United States that are not jurisdictional to the Corps, such as isolated wetlands, to ensure that the proposed activity complies with State water quality standards. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to its nine Regional Water Quality Control Boards (RWQCBs).

Under federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations (40 CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: designated beneficial uses of the water body in question and criteria that protect the designated uses.

Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. In California, the EPA has designated the SWRCB and its RWQCBs with authority to identify beneficial uses and adopt applicable water quality objectives.

When water quality does not meet CWA standards and compromises designated beneficial uses of a receiving water body, Section 303(d) of the CWA requires that water body be identified and listed as "impaired." Once a water body has been designated as impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total amount of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards, with a factor of safety included. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, codified in Division 7 of the California Water Code) of 1969 is California's statutory authority for the protection of water quality. Under the Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use and enjoyment of the people. Such "waters of the State" include streams, groundwater, isolated wetlands, and other bodies of water that are not under federal jurisdiction as "waters of the United States" (under the Clean Water Act). These waters include those that are not tributary to navigable waterways. The Act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans (Basin Plans). Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California.

The Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge (RWD) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), National Pollutant Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

State Water Resources Control Board and Regional Water Quality Control Boards

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy, and exercises the powers delegated to the State by the federal government under the CWA. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) for drinking water regulations, the California Department of Pesticide Regulation, the California Department of Fish and Wildlife (CDFW), and the Office of Environmental Health and Hazard Assessment.

Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt Basin Plans for all areas in the region and establish water quality objectives in the plans. The City of Capitola is within the jurisdiction of the Central Coast RWQCB (Region 3).

The Central Coast RWQCB adopted a Basin Plan for the Central Coastal Region that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan.

Dewatering activities are subject to the RWQCB construction dewatering permit requirements. Discharge of any sediment-laden water from a dewatering site into waters of the State is prohibited. Discharge of uncontaminated groundwater from dewatering is a conditionally exempted discharge by the RWQCB. However, if the excavation and dewatering occurs within an area where previous groundwater contamination has been reported and still exists, the extracted groundwater would require treatment prior to discharge. The disposal of dewatered discharges would require a permit or a waiver (exemption) from the RWQCB for discharge to surface creeks and groundwater. The applicable water district is the appropriate agency if permits are required for dewatering wells and local agencies should be contacted if the discharge will be released to storm or sanitary sewers.

California Fish and Game Code

The California Department of Fish and Wildlife (CDFW) protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the CDFW, incorporating necessary mitigation and obtaining a streambed alteration agreement. CDFW's jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

SWRCB Construction General Permit (Statewide 2013-0001-DWQ)

Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (Statewide 2013-0001-DWQ, adopted on February 5, 2013, and effective July 1, 2013). Under the terms of the permit, applicants must file Permit Registration Documents (PRDs), including a Notice of Intent (NOI), risk assessment, annual fee, and a signed certification statement with the SWRCB. Applicants must also demonstrate conformance with applicable Best Management Practices (BMPs) and prepare a Stormwater Pollution Prevention Plan (SWPPP), containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the site. The operative Construction General Permit (Statewide 2013-0001-DWQ) requires stormwater pollution prevention controls, including the imposition of minimum BMPs.

The Water Conservation Act of 2009 (Senate Bill X7-7 (2009))

Senate Bill X7-7, which was enacted in 2009, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of a ten percent reduction in per capita water use by 2015.

State Updated Model Landscape Ordinance (Assembly Bill 1881 (2006))

The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance (MO). Until the City of Capitola adopts a different ordinance, the provisions of the MO are in effect.

Non-Point Source Pollution Control Program

The purpose of the Non-Point Source Pollution (NPS) Control Program (NPS Program Plan) is to improve the State's ability to effectively manage NPS pollution and conform to the requirements of the CWA and the Federal Coastal Zone Act Reauthorization Amendments of 1990. These documents were developed by staff of the SWRCB's Division of Water Quality and the California Coastal Commission (CCC), in coordination with the RWQCBs and staff from over 20 other State agencies.

Local Programs and Regulations

Storm Water Management Program

The Storm Water Management Program (SWMP) builds on locally popular efforts to preserve and enhance Santa Cruz County watersheds and is the County of Santa Cruz and the City's response to the new statewide NPDES General Permit requirements for agencies designated by the SWRCB. It is the County and City's intent that the SWMP is complimentary to other local and regional urban runoff efforts (such as other local SWMPs and the Monterey Bay Sanctuary's Water Quality Protection Program). The SWMP is also consistent with the RWQCB's Resolution No. R3-2013-0032 pertaining to LID and hydromodification control.

The SWMP describes how pollutants in local stormwater runoff will be controlled and describes BMPs designed to address the six minimum measures. The objectives of the SWMP are to:

- Reduce the discharge of pollutants to stormwater to the "maximum extent practicable" (MEP).
- Protect Water Quality.
- Provide long term protection of the watershed.
- Satisfy the appropriate water quality requirements of the Clean Water Act.
- Educate residents and businesses about stormwater pollution and efforts being made to improve water quality.

Under the General Permit, the agencies will implement specific types of urban runoff pollutant control measures and submit reports to the Central Coast RWQCB. Urban runoff includes stormwater that is discharged by municipal storm drainage systems and any other water that flows, is discharged, or infiltrates into the storm drainage system.

Soquel Creek Water District

Water for the City is provided by the Soquel Creek Water District (SqCWD) primarily for areas east of 41st Avenue. The SqCWD provides approximately 90 percent of the total water used in the Plan Area. The SqCWD relies entirely on groundwater for their water supply. Public and private groundwater users have and continue to exceed the estimated sustainable yield of the Soquel-Aptos Groundwater Basin, thus increasing the potential for seawater intrusion (i.e., the movement of salt water into freshwater supplies, which can contaminate drinking water supplies). In addition, the sustainable yield of the Soquel-Aptos Groundwater Basin may be less than currently estimated. To help address this supply issue, the SqCWD has instituted a number of water conservation programs.

The California Urban Water Management Planning Act (Act) requires an Urban Water Management Plan (UWMP) from specified water suppliers. The Act became part of the California Water Code in 1983 with the passage of Assembly Bill 797. The Act has been amended and expanded since its inception to address new water related issues as they develop. The main purposes of the Act are to achieve proper water supply planning and conservation.

Every urban water supplier providing more than 3,000 acre-feet (AF) of water annually or providing to more than 3,000 customers must prepare and adopt an UWMP every 5 years (in years ending in zero and five). SqCWD falls under the requirement category and accordingly has produced an UWMP in 1985, which was last updated in 2000.

The 2005 UWMP Update provides important information on SqCWD's water supply planning and studies, emergency response, and conservation activities. The UWMP is one of several documents that SqCWD uses as a long-range planning tool.

City of Santa Cruz Water Department

Approximately 10 percent of the water for the City is provided by the City of Santa Cruz Water Department (SCWD) primarily for areas west of 41st Avenue. The SCWD relies almost entirely on surface water sources, and during drought conditions does not have sufficient supply to meet demand. As stated, to help address this supply issue, the SCWD and the SqCWD have instituted a number of water conservation programs and are coordinating on the Regional Seawater Desalination Program (discussed above). This would improve water supply reliability for both SqCWD and SCWD users.

City of Capitola Regulations

Capitola Local Coastal Program

In 1976 the State legislature passed the California Coastal Act of 1976, transferring most of the authority vested in the California Coastal Commission by the Coastal Act to local governments through adoption and certification of "Local Coastal Programs." Local Coastal Programs (LCP) includes a local government's land use plan, zoning district maps, and other implementing actions that when taken together, meet the requirements of and implement the provisions and policies of the Coastal Act. An LCP reflects the coastal issues and concerns of the local jurisdiction and must be consistent with statewide policies of the Coastal Act. When certified, the LCP becomes legally binding on the City.

Capitola's Local Coastal Land Use Plan is a comprehensive long-term plan for land use and physical development within the City's coastal zone. Prior to the issuance of any permit for development within the coastal zone, the City of Capitola is required to prepare necessary findings that the development meets the standards set forth in all applicable Land Use policies.

The City's LCP states that the City can do several things to control the water quality of the lower reaches of Soquel Creek and Noble Gulch. Pollutants generally come from two sources: the streets and the land. Street pollution enters streams as runoff during storms or from overflowing sewer lines. The City currently operates a vacuum sweeper, which removes 95 percent of sediment and nutrients from urban streets, according to the Association of Monterey Bay Area Governments (AMBAG).

To control siltation of the streams, regulations for grading and construction techniques are needed. This is particularly important along Soquel Creek where areas of vacant buildable land front the stream. In other areas, adherence to the standard Uniform Building Code grading ordinance that the City has adopted is adequate.

Prevention of the depletion of groundwater supplies is required by Coastal Act Section 30231. Capitola is located within the Soquel-Aptos basin, a 50-square-mile area whose boundaries are roughly Branciforte Creek-San Lorenzo River on the west, the divide separating the Pajaro River basin from the Soquel-Aptos basin (located approximately at La Selva) on the east, the San Andreas Fault on the north, and Monterey Bay on the south. Water

for the portion of Capitola west of 41st Avenue is supplied by the City of Santa Cruz, from surface sources north of that city. Most of Capitola, however, is served by the Soquel Creek County Water District, which draws its water exclusively from groundwater supplies.

Relevant Coastal Act and LCP policies pertaining to hydrology and water quality include the following:

- Policy VI-1. It shall be the policy of the City of Capitola to take measures within its purview to preserve and improve the quality of the waters of Monterey Bay, to support Marine Habitats, public recreation, and commercial pursuits consistent with sound resource management principles.
- Policy VI-4. Parking lot and stream drains, and storm water run-off culverts shall be improved by installing energy dissipators and sand traps or other types of grease/sediment traps in conjunction with new development or intensification of use.
- Policy VI-5. The City shall, as a condition of new development, ensure that run-off does not significantly
 impact the water quality of Capitola's creeks and wetlands through increased sedimentation, biochemical
 degradation or thermal pollution.
- Policy VI-6. The City shall enact regulations to control erosion and runoff.
- Policy VI-7. The City should coordinate with Santa Cruz County and AMBAG to investigate and implement sound watershed management methods for the lands within Capitola to:
 - a) maintain adequate stream flow for fish, wildlife, and riparian vegetation;
 - b) control contaminated urban runoff; and
 - c) encourage water conservation.

Relevant Coastal Act policies pertaining to natural hazards in Capitola's coastal zone include the following:

- Sections 30253 (1) and (2). New development shall:
 - 1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
 - 2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.
- Section 30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.
- Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Soquel Creek Lagoon Management and Enhancement Plan

It is the intent of the Soquel Creek Lagoon Management and Enhancement Plan to protect the lagoon's wildlife and fisheries habitat as well as reduce fecal coliform bacteria to a level that would allow swimming. Some policies and actions within this plan include those pertaining to sediment reduction (Policies 1.6.1 through 1.6.11), high bacterial counts in the Lagoon and along the beach (Policies 2.1 through 2.6), watershed impacts (Policies 3.1 through 3.6), non-point source pollution (Policies 7.1 through 7.13), and stream bank erosion in the Nob Hill Ranch (Policies 8.1 through 8.7).

City of Capitola Municipal Code

Chapter 13.16, Storm Water Pollution Prevention and Protection, of the City of Capitola Municipal Code (Capitola Municipal Code) establishes regulations for controlling the introduction of pollutants into the storm water system to ensure the City's compliance with provisions of the SWRCB's NPDES General Permit and Waste Discharge Requirements. These regulations will provide for the health, safety, and general welfare of the citizens of the City through the regulation of non-storm-water discharges to the storm drainage system as required by federal and State law.

Capitola Municipal Code Section 15.28.110 (C), Design Standards For Cut and Fill Setbacks, addresses stream and riparian setbacks. Tops and toes of cut and/or filled slopes shall be set back far enough to prevent encroachment upon streams, floodplains, channels, or bodies of standing water and provide and maintain an undisturbed protective strip between the grading and the riparian corridor. This strip shall have sufficient filter capacity as determined by the grading official to prevent degradation of water quality. If it is determined that the filter capacity of the protective strip is insufficient, additional erosion control may be required by increasing the width of the protective strip or with structural measures and/or by seeding, planting, mulching of bare soil areas.

Capitola Municipal Code Chapter 17.50, Floodplain District, promotes the public health, safety, and general welfare, and minimizes public and private losses due to flood conditions in specific areas by legally enforceable regulations applied uniformly throughout the community to all publicly and privately owned land within flood prone, mudslide (i.e., mudflow) or flood related erosion areas.

Capitola Municipal Code Title 17.97, Water-Efficient Landscaping, provides guidelines for the use of droughttolerant plants and water-efficient irrigation systems as part of all new commercial and residential construction. It should be noted that this ordinance is not consistent with the State's recently adopted Water Efficient Landscape Act (AB 1881) and that the City is intending to revise this ordinance and refer to the requirements of each respective water supplier, both of which have revised their water-efficient landscaping requirements to be at least as stringent as AB 1881.

4.7.1.2 EXISTING CONDITIONS

This section describes existing conditions in the Plan Area related to hydrology and water quality.

Regional Hydrology

The City encompasses approximately 1.7 square miles centrally located in the County of Santa Cruz. The main watersheds located within Santa Cruz County are the San Lorenzo River and Soquel Creek watersheds. The lower reaches of the Soquel Creek watershed are located within the City of Capitola. Active water ways in the city include Soquel Creek and Noble Gulch both of which drain to Monterey Bay, located at the city's southern boundary. The city's geography includes coastal bluffs and plateaus, river valleys, and a beach and lagoon at the mouth of Soquel Creek.

Soquel Creek is the primary water body in the Plan Area that flows year round; it flows from the Santa Cruz Mountains to Capitola and discharges to Monterey Bay. Soquel Creek is the primary drainage that makes up the Soquel watershed, which, as shown in Figure 4.7-1, serves the majority of the city. There are also several other smaller drainages that drain into Soquel Creek or seasonally drain directly into Monterey Bay. The Arana-Rodeo watershed is located in the western third of the Plan Area, draining Arana Gulch and Rodeo Creek Gulch, which are located west of the city.

Historically, Soquel Creek was allowed to flow freely into Monterey Bay. However, since the mid-1900s when Henry Rispin developed a summer resort, Soquel Creek has been blocked to create Soquel Lagoon and expand the beach area during summer months. Currently, a berm is placed across the mouth of Soquel Creek during the summer months only; during this time, a pipe outlets creek flow to discharge onto the beach.

Stormwater System

The City of Capitola maintains its street drainage systems and relies on the County to provide major storm drain services through the Santa Cruz County Flood Control and Water Conservation District Zone 5. The infrastructure associated with flood protection and stormwater drainage includes underground systems, above ground drainage ditches and water courses, and pump stations, catch basins, and outfalls. Five storm drain outfalls discharge stormwater into Soquel Creek. Three outfalls flow directly to the beach and four outfalls discharge stormwater onto the coastal cliffs (three on Grand Avenue and one on Cliff Drive). Storm drainage from most of the 41st Avenue area flows to a County flood control drainage basin near 38th Avenue and Brommer Street, and then flows into Moran Lake, north and west of the city.

In the past, Capitola has experienced minor intersection flooding which was corrected through maintenance. In 2002, the City received a grant from the SWRCB to prepare a storm drain master plan for the Village area to identify key components to water quality and to design and build dry weather diversions. As part of this effort, the City constructed the Lawn Way pump station in 2004 to alleviate localized flooding.

GENERAL PLAN UPDATE EIR CITY OF CAPITOLA

HYDROLOGY AND WATER QUALITY



Source: Santa Cruz County, 2011.

Figure 4.7-1 Regional Watersheds

Groundwater

The Plan Area is underlain by the Purisima Formation. Symptoms of decline have appeared in the aquifer, indicating that sustainable levels of pumping have been exceeded, thereby increasing the potential for saltwater intrusion. Technical studies of the groundwater basin conditions for the SqCWD's service area indicate that, even with conservation savings, a supplemental source of supply needs to be developed within the near future because overdrafting and saltwater intrusion are occurring and these conditions could worsen if groundwater continues to be the sole source of water for the SqCWD. These conditions can affect both water supply and quality to the point that the SqCWD would no longer be able to meet customers' needs.

In addition to the SqCWD's water rights to the Purisima Formation, the SCWD also uses drinking water from this aquifer via three production wells and the Live Oak Treatment Plant. The Live Oak Treatment Plant treats groundwater to remove iron and manganese and has a capacity of 2 million gallons per day (mgd). Groundwater only constitutes approximately 4 percent of the entire District's water supply on an annual basis.

Water Quality

Urban runoff transporting non-point source pollution is widely regarded as the nation's leading threat to water quality. Pollutants may include toxic metals, hydrocarbons, nutrients, suspended solids, and many other chemicals that are detrimental to aquatic life. Urbanization and increases in population directly affect the type of pollution that enters storm drains. Impervious surfaces such as roads and parking lots prevent storm water from penetrating into the ground. These surfaces become conduits for pollutants. Some common examples include oil that washes off roads, fertilizers and pesticides from lawns, and detergents from car washing and commercial activities.

The primary pollutants of concern specific to Santa Cruz County and the City of Capitola are fecal indicator bacteria, sediment, and nutrients. Periodically, the waters at Capitola Beach are posted as being unsafe for body contact. From 2001 to 2004, and again in 2009, Capitola Beach was listed by the non-profit volunteer group Heal the Bay as being one of the 20 worst beaches in California due to high fecal coliform counts. As with all coastal lagoons in Santa Cruz County, Soquel Lagoon is permanently posted as unsafe for human contact. The waters off the beach are monitored by Santa Cruz County and posted when bacteria levels are high.

RWQCB assessed waters within the Plan Area include Porter Gulch Creek, Soquel Creek, Nobel Gulch Creek, Robs Creek, Rodeo Creek Gulch, and the Pacific Ocean. Of these waters, the following are listed as a Section 303(d) impaired water body:¹

- Soquel Creek due to the presence of Enterococcus, Escherichia coli (E. coli), fecal coliform, and turbidity.
- Nobel Gulch Creek due to the presence of E. coli.
- Rodeo Creek Gulch due to the presence of pH and turbidity.
- The Pacific Ocean (from Point Ano Nuevo to Soquel Point) due to the presence of Dieldrin.

¹ State Water Resources Control Board, 2010 Integrated Report – All Assessed Waters,

http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml, accessed on September 16, 2013.

Bacterial contamination on Capitola Beach and Soquel Lagoon is attributed to many factors, including high numbers of birds roosting around the Lagoon and beach and urban runoff in the upper and lower watershed. Birds are the major source of contamination, contributing to 77 percent of the bacterial load at Capitola Beach. In 2008, the City constructed a biofiltration treatment wetland on 0.25-acre of City-owned property adjacent to Soquel Lagoon to treat stormwater in order to assist with water quality improvement in the Lagoon.

These pollutants of concern are addressed through implementation of the City's SWMP. In developing the various programs of the SWMP, the City has prioritized BMP's that will reduce the discharge of pollutants of concern that originate from the stormwater system and will benefit waterbodies listed on the Section 303(d) list. These BMPs are related to drainage infrastructure, including, but not limited to, outfall inspection and cleaning, annual storm drain cleaning in the fall, and zero discharge sidewalk cleaning.

Flooding

According to FEMA, all of Soquel Creek (within the city limits) and a portion of Noble Gulch are located within the 100-year flood zone (see Figure 4.7-2). The flood zone is relatively narrow and generally follows the flow path of the main channel. Moving upstream from the creek mouth, the elevation of the 100-year flood zone (i.e., the base flood elevation) becomes progressively higher than the water surface elevations associated with the periodic formation of the Lagoon during the summer months.

Noble Gulch is a significant drainage that flows into Soquel Creek at the Village. Approximately 30 years ago, the last approximately 2,000 feet of the Gulch (east 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 of 2011, rushing water overwhelmed the drainage pipe creating an upwards surge that tore apart the ground beneath several mobile homes. The water cascaded down Capitola Avenue into the Village, causing considerable damage to homes and businesses.

This storm event and the failed drainage pipe, demonstrates the potential risks and vulnerability of flooding in the Village. Storm events occur relatively frequently and the Village is located at the end of Soquel Creek which is a very large watershed. Flows associated with these large storm events, often result in significant amounts of vegetation debris including trees and limbs which can get blocked, particularly at the Stockton Bridge, further exacerbating flood conditions.

Dam Inundation

Based on the Local Hazard Mitigation Plan, there are no levees or dams that would impact the City upon failure.



Source: City of Capitola, 2010; Santa Cruz County, 2010.

Tsunami, Seiche, and Mudflow

Tsunami

A tsunami is a series of traveling ocean waves generated by some kind of rare, catastrophic event, including earthquakes, submarine landslides, and volcanic eruptions. Tsunamis can travel over the ocean surface at speeds of 400 to 500 miles per hour (mph) or more, and wave heights at the shore can range from inches to an excess of 50 feet. Factors influencing the size and speed of a tsunami include the source and magnitude of the triggering event, as well as off-shore and on-shore topography.

Based on the Local Hazard Mitigation Plan, in April 1946 one tsunami event was recorded in the vicinity of the Plan Area. Also, a recent tsunami event in March 2011 closed roads in Capitola Village. As a precaution, the City issued a voluntary evacuation, notifying individuals through reverse 911 for the hotels on the wharf and a significant portion of the village. No significant damage occurred from this tsunami event.

As shown in Figure 4.7-3, nearly all of Capitola Village is located within the tsunami inundation area, as mapped by California Emergency Management Agency (Cal EMA). Other areas include a portion of Soquel Creek, from Capitola Beach to approximately one river mile upstream to Highway 1, and a portion of Noble Gulch (about ¼-mile), which flows into Soquel Creek. The Capitola shoreline would also be inundated. However, while the coastal cliffs would block inland flows, substantial erosion would likely occur as the result of a tsunami.

In the event of a tsunami, people or structures within these areas could be exposed to a significant risk of loss, injury, or death due to flooding. The tsunami inundation area, as mapped by Cal EMA, is considered a maximum estimate (i.e., based upon the maximum tsunami run-up), taking into consideration a number of extreme, yet realistic, tsunami sources.

Seiche

A seiche is an oscillation wave generated in a closed or partially closed body of water, which can be compared to the back-and-forth sloshing in a bath tub. Seiches can be caused by winds, changes in atmospheric pressure, underwater earthquakes, tsunamis, or landslides into the water body. Bodies of water such as bays, harbors, reservoirs, ponds, and swimming ponds can experience seiche waves up to several feet in height during a strong earthquake. The City is located within an inundation zone of tsunamis generated by earthquakes, as discussed above, and includes large bodies of water, such as Soquel Cove and Soquel Lagoon. Therefore, seiches could result along beach areas and creeks within the Plan Area in association with a tsunami event.

Mudflow

Mud and debris flows are mass movements of dirt and debris that occur after intense rainfall, earthquakes, and severe wildfires. The speed of a slide depends on the amount of precipitation, steepness of the slope, and alternate freezing and thawing of the ground. Based on the Local Hazard Mitigation Plan, due to steep topography, there is a potential for mudflows to occur below Wharf Road and above Soquel Creek, which could impact the Stockton Avenue Bridge and the Village.


Source: California Emergency Management Agency, California Geological Survey, and University of Southern California, 2009.

4.7.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the proposed Plan would result in significant adverse impacts if it would:

- 1. Violate any water quality standards or waste discharge requirements.
- 2. 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).
- 3. 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, siltation, or flooding on- or off-site.
- 4. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- 5. Otherwise substantially degrade water quality.
- 6. 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 or place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- 7. 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.
- 8. Inundation by seiche, tsunami, or mudflow.

4.7.3 ENVIRONMENTAL IMPACT DISCUSSION

HYDRO-1 The proposed Plan would not violate any water quality standards or waste discharge requirements.

Future construction activities associated with development within the Plan Area could negatively affect the water quality of surface waters. Grading and other earthmoving activities during construction would expose soils, which could be eroded and deposited into downstream receiving waters. This in turn would increase the amount of turbidity and sediment in these water bodies, which could harm aquatic life. Additionally, chemicals or fuels could accidentally spill and be washed into receiving waters.

Future development within the Plan Area will be required to comply with State and local water quality regulations designed to control erosion and protect water quality during construction. This includes compliance with the NPDES General Permit, which requires preparation and implementation of a SWPPP. The SWPPP must include erosion and sediment control BMPs that will meet or exceed measures required by the General Permit, as well as BMPs that control hydrocarbons, trash, debris, and other potential construction-related pollutants. Implementation

of BMPs prevent or minimize environmental impacts and ensure that discharges during the construction phase of future projects will not cause or contribute to the degradation of water quality in receiving waters, reducing construction-related water quality impacts to less than significant levels.

Post-construction impacts from development could affect drainage patterns and increase the overall amount of impervious surfaces, thus creating changes to stormwater flows and water quality. Increasing the total area of impervious surfaces can result in a greater potential to introduce pollutants to receiving waters. Urban runoff can carry a variety of pollutants, including oil and grease, metals, sediment, and pesticide residues from roadways, parking lots, rooftops, and landscaped areas depositing them into adjacent waterways via the storm drain system. However, future projects would be primarily located on underutilized land, infill sites, and along transit corridors, most of which are already developed and currently have a high percentage of impervious surfaces.

Water quality in stormwater runoff is regulated locally by the SWMP, which is consistent with the Central Coast RWQCB's Resolution No. R3-2013-0032. Adherence to the SWMP requires new development or redevelopment projects to incorporate treatment measures, agree to maintain them, and implement other appropriate source control and site design features that reduce pollutants in runoff to the maximum extent practicable. Many of the requirements consider LID practices, such as the use of bioswales, infiltration trenches, media filtration devices, pervious surface treatments, and bioretention areas. In addition, all development or redevelopment projects within the Plan Area will be required to prepare a project specific Stormwater Management Plan that includes the post-construction BMPs that control pollutant levels. Neighborhood and lot-level BMPs to promote "green" treatment of storm runoff will be emphasized. BMPs would be designed in accordance with the California Stormwater BMP Handbook for New and Redevelopment or other accepted guidance manuals and all designs would be reviewed and approved by the City prior to the issuance of grading or building permits on a project-by-project basis.

All development and redevelopment projects within the Plan Area would be required by existing standards and regulations to implement storm water management measures. These may include, but are not limited to, street sweeping and litter control, outreach regarding appropriate fertilizer and pesticide use practices, and managed disposal of hazardous wastes. If required by a regulatory agency on a project-by-project basis, project applicants would be required to prepare an Operations and Maintenance (O&M) Plan for post-construction water quality and quality control measures. The project applicant would also identify responsible parties and provide adequate funding to maintain and operate the stormwater improvements through a Home Owners Association (HOA), Community Services District (CSD), Community Facilities District (CFD), or similar entity, if necessary. Compliance with State and local policies and regulations will reduce operational-related water quality impacts to less-than-significant levels.

Furthermore, the following goals, policies, and actions contained in the proposed Plan would ensure that new development projects under the proposed Plan would minimize impacts to water quality:

- Goal OSC-8. Provide for a high level of water quality.
- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.

- Policy OSC-8.2 Non-Point Source Pollution. Minimize, avoid, or eliminate non-point source pollution by controlling storm water runoff, polluted dry weather runoff, and other pollution, in compliance with Capitola's National Pollutant Discharge Elimination System (NPDES) Permit and Storm Water Management Plan.
- Policy OSC-8.3 Best Management Practices. Require all new development, public and private, to meet or exceed State storm water requirements and incorporate best management practices to treat, infiltrate, or filter storm water runoff and reduce pollutants discharged into the storm drain system and surrounding coastal waters during construction and post-construction, to the maximum extent practicable.
- Policy OSC-8.4 Landscaping and Re-Vegetation. Require landscaping and re-vegetation of graded or disturbed areas for new development.
- Policy OSC-8.5 Native Plants. Encourage the use of native plants in landscaping to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation, and to be in compliance with Stormwater Pollution Prevention Plans.
- Policy OSC-8.6 City Properties. Design, construct, and maintain City properties in a manner that maximizes water quality protection through:
 - Designing new and renovated landscaped and paved areas that suit site conditions, protect water quality, and support sustainable maintenance.
 - Using drought-tolerant native and non-invasive plant species.
 - Incorporating Low Impact Development design techniques.
 - Practicing the principles of integrated pest management.
 - Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments.
- Policy OSC-8.7 Regional Collaboration. Continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Soquel Creek watershed. Participate in efforts to reduce storm water and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces to the maximum extent possible. Prohibit post-project peak storm water runoff discharge rates from exceeding the estimated pre-project rate.
- Action OSC-8.1 Stormwater Infrastructure. Develop a priority list and timeline for public storm water drainage infrastructure improvements for all neighborhoods in Capitola.
- Action OSC-8.2 Funding for Stormwater Management. Identify funding sources to upgrade existing inadequate stormwater facilities and address on-site retention of contaminants.

Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.

Applicable Regulations:

- NPDES General Construction Permit
- Storm Water Management Program
- Capitola Municipal Code, Chapter 13.16, Storm Water Pollution Prevention and Protection
- Capitola Municipal Code, Chapter 15.28.110(C), Design Standards for Cut and Fill Setbacks

Development within the Plan Area would not degrade water quality or contribute substantial amounts of polluted runoff and impacts are *less than significant*.

Significance Before Mitigation: Less than significant.

HYDRO-2The proposed Plan could 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.

Future development within the Plan Area could result in an increase in impervious surfaces. In addition, there may be potential diversion of groundwater to surface water if short-term construction requires dewatering. Many areas in the city have groundwater levels of less than 10 feet below ground surface (bgs). These activities could result in a decrease in groundwater recharge to the Basin. However, the total acreage of land within the city where future development and redevelopment under the proposed Plan is expected to occur is very small relative to the size of the watershed and groundwater basin. Further, the implementation of LID guidelines that include the use of permeable paving materials and on-site infiltration would increase the potential for groundwater recharge. Thus, potential development associated with the proposed Plan would not significantly interfere with natural groundwater recharge and impacts would be less than significant in this regard.

Although impacts to natural groundwater recharge are not anticipated, impacts to groundwater supplies as a result of increased water demand could occur with new development associated with implementation of the proposed Plan. As discussed in Chapter 4.14, Utilities and Service Systems, approximately 90 percent of the total water used by the City of Capitola is provided by the SqCWD, which solely relies on groundwater. As shown in Tables 4.14-1, 4.14-2 and 4.14-3 in Chapter 4.14, the SqCWD anticipates that demand will exceed sustainable groundwater supply in 2020 and beyond. Specifically, SqCWD anticipates an increase in water demand of 124 acre-feet per year (afy) without anticipated savings. This demand, as well as potential increased demand associated with implementation of the proposed Plan, could result in the withdrawal of additional groundwater beyond the sustainable groundwater supply. A reduction in groundwater below the sustainable supply could result in the lowering of the local groundwater table and potentially result in saltwater intrusion. Saltwater intrusion into the groundwater supply could lead to contamination, further impacting the availability of groundwater supply.

The policies listed in Chapter 4.14 pertaining to water conservation, as well as the following policies contained in the proposed Plan, would reduce impacts to groundwater:

- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.3 Best Management Practices. Require all new development, public and private, to meet or exceed State storm water requirements and incorporate best management practices to treat, infiltrate, or filter storm water runoff and reduce pollutants discharged into the storm drain system and surrounding coastal waters during construction and post-construction, to the maximum extent practicable.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces to the maximum extent possible. Prohibit postproject peak storm water runoff discharge rates from exceeding the estimated pre-project rate.

Applicable Regulations:

- Storm Water Management Program
- Water Conservation Act of 2009
- Capitola Municipal Code (Title 17.97)

A future seawater desalination plant has been considered but is on hold. Since other sources of water to meet future demand have not been identified or secured, potential groundwater overdraft-related impacts remain *significant*.

Significance Before Mitigation: Significant.

HYDRO-3The proposed Plan would not substantially alter the existing drainage pattern of the Plan Area
or vicinity, including through the alteration of the course of a stream or river, in a manner
which would result in substantial erosion, siltation, or flooding on- or off-site.

Future development within the Plan Area could involve vegetation removal, grading, earth excavation, and the construction of buildings, sidewalks, driveways, and parking lots. These activities could alter existing drainage patterns and increase the potential for erosion and/or siltation. However, implementation of the proposed Plan would not alter the course of an existing stream or river. As discussed under Impact HYDRO-1, standard erosion control measures would be implemented as part of the SWPPP for any proposed project to minimize the risk during construction. The SWPPP must include an erosion control plan that prescribes measures such as phasing of grading, limiting areas of disturbance, designation of restricted-entry zones, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provisions for revegetation or mulching. The erosion control plan would also include treatment measures to trap sediment once it has been mobilized, including inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds. With implementation of these measures during construction, erosion or siltation impacts would be less than significant.

Once projects within the Plan Area have been constructed, the SWMP requirements, including RWQCB Resolution No. R3-2013-0032, for new development or redevelopment, includes source control measures, site design measures, LID, and treatment measures that address stormwater runoff and will reduce the potential for erosion or siltation.

During the life of any development project, the increase in impervious surfaces could result in a change in drainage patterns that could increase the rate and/or volume of stormwater runoff, contributing to on- or off-site flooding. However, pursuant to the Municipal Code, the City requires plans to be submitted for grading permits, including a detailed hydrology and hydraulics report. The report is required to include calculations regarding the anticipated volume of stormwater runoff generated by the proposed development and demonstrate that adequate stormwater conveyance and capacity is available to convey the stormwater flow from the site. The hydrology report would be subject to review and approval by the City Engineer to ensure that all on-site drainage, LID features, and retention basins are adequate to prevent on- and off-site flooding. With implementation of these regulations, there would be less-than-significant impacts with respect to on- and off-site erosion or flooding.

Furthermore, the following goals, policies, and actions from the proposed Plan would ensure that no on- or offsite erosion or flooding occurs from alterations in drainage patterns:

- Goal OSC-8. Provide for a high level of water quality.
- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.4 Landscaping and Re-Vegetation. Require landscaping and re-vegetation of graded or disturbed areas for new development.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces to the maximum extent possible. Prohibit postproject peak stormwater runoff discharge rates from exceeding the estimated pre-project rate.
- Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.

Applicable Regulations:

- NPDES General Construction Permit (NOI and SWPPP requirements)
- Storm Water Management Program
- Capitola Municipal Code, Chapter 13.16, Storm Water Pollution Prevention and Protection
- Capitola Municipal Code, Chapter 15.28.110(C), Design Standards for Cut and Fill Setbacks

Development of projects within the Plan Area would not result in substantial on- or off-site erosion, siltation, or flooding, and impacts are *less than significant*.

Significance Before Mitigation: Less than significant.

HYDRO-4The proposed Plan would not create or contribute runoff water, which would exceed the
capacity of existing or planned stormwater drainage systems or provide substantial
additional sources of polluted runoff.

An increase in impervious surfaces associated with development within the Plan Area could result in increases in stormwater runoff, which in turn could exceed the capacity of existing or planned stormwater drainage systems. New development or redevelopment projects will need to construct adequately sized storm drainage systems to convey on-site stormwater runoff to existing storm drain facilities. The on-site systems are subject to City review to verify that they are designed to accommodate increased flows and would not exceed the capacity of downstream drainage systems.

In addition, the City requires that major development projects complete drainage and hydrology analyses to ensure that on- and off-site drainage facilities can accommodate increased stormwater flows. Development projects may also be required to provide a fair share of improvements to the storm drain system necessary to accommodate increased flows from the development. Also, implementation of the SWMP provisions for new development, which include LID design and on-site retention basins, minimize increases in peak flow rates or runoff volumes. With implementation of these measures, impacts to storm drain system capacities are reduced to less-thansignificant levels.

Furthermore, the following goals, policies, and actions from the proposed Plan would further reduce potential impacts to the existing storm drain infrastructure:

- Goal OSC-8. Provide for a high level of water quality.
- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.2 Non-Point Source Pollution. Minimize, avoid, or eliminate non-point source pollution by controlling storm water runoff, polluted dry weather runoff, and other pollution, in compliance with Capitola's National Pollutant Discharge Elimination System (NPDES) Permit and Storm Water Management Plan.
- Policy OSC-8.3 Best Management Practices. Require all new development, public and private, to meet or exceed State storm water requirements and incorporate best management practices to treat, infiltrate, or filter storm water runoff and reduce pollutants discharged into the storm drain system and surrounding coastal waters during construction and post-construction, to the maximum extent practicable.
- Policy OSC-8.4 Landscaping and Re-Vegetation. Require landscaping and re-vegetation of graded or disturbed areas for new development.
- Policy OSC-8.5 Native Plants. Encourage the use of native plants in landscaping to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation, and to be in compliance with Stormwater Pollution Prevention Plans.

- Policy OSC-8.6 City Properties. Design, construct, and maintain City properties in a manner that maximizes water quality protection through:
 - Designing new and renovated landscaped and paved areas that suit site conditions, protect water quality, and support sustainable maintenance.
 - Using drought-tolerant native and non-invasive plant species.
 - Incorporating Low Impact Development design techniques.
 - Practicing the principles of integrated pest management.
 - Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments.
- Policy OSC-8.7 Regional Collaboration. Continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Soquel Creek watershed. Participate in efforts to reduce storm water and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces to the maximum extent possible. Prohibit postproject peak storm water runoff discharge rates from exceeding the estimated pre-project rate.
- Action OSC-8.1 Storm water Infrastructure. Develop a priority list and timeline for public stormwater drainage infrastructure improvements for all neighborhoods in Capitola.
- Action OSC-8.2 Funding for Stormwater Management. Identify funding sources to upgrade existing inadequate stormwater facilities and address on-site retention of contaminants.
- Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.

Applicable Regulations:

Storm Water Management Program

Development within the Plan Area would not create or contribute stormwater runoff that exceeds the capacity of existing or planned stormwater drainage systems and impacts are *less than significant*.

Significance Before Mitigation: Less than significant.

HYDRO-5 The proposed Plan would not otherwise substantially degrade water quality.

As discussed under Impact HYDRO-1, the principal source of water pollutants from future development within the Plan Area is oil and grease, metals, sediment, and chemicals from roadways, parking lots, rooftops, and landscaped areas. Each project would be required to include source control, site design, and LID measures, such as bioretention areas, flow-through planters, and permeable pavers, in compliance with the Capitola Municipal Code. Implementation of these stormwater control measures will provide natural filtration of pollutants from stormwater runoff prior to entry into the storm drain system. As such, new development and redevelopment projects would improve the treatment of stormwater on-site and reduce stormwater pollution, thus reducing impacts to less-than-significant levels.

Furthermore, the following goals, policies, and actions contained in the proposed Plan would further reduce potential impacts to water quality:

- Goal OSC-8. Provide for a high level of water quality.
- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.2 Non-Point Source Pollution. Minimize, avoid, or eliminate non-point source pollution by controlling storm water runoff, polluted dry weather runoff, and other pollution, in compliance with Capitola's National Pollutant Discharge Elimination System (NPDES) Permit and Storm Water Management Plan.
- Policy OSC-8.3 Best Management Practices. Require all new development, public and private, to meet or exceed State storm water requirements and incorporate best management practices to treat, infiltrate, or filter storm water runoff and reduce pollutants discharged into the storm drain system and surrounding coastal waters during construction and post-construction, to the maximum extent practicable.
- Policy OSC-8.4 Landscaping and Re-Vegetation. Require landscaping and re-vegetation of graded or disturbed areas for new development.
- Policy OSC-8.5 Native Plants. Encourage the use of native plants in landscaping to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation, and to be in compliance with Stormwater Pollution Prevention Plans.
- Policy OSC-8.6 City Properties. Design, construct, and maintain City properties in a manner that maximizes water quality protection through:
 - Designing new and renovated landscaped and paved areas that suit site conditions, protect water quality, and support sustainable maintenance.
 - Using drought-tolerant native and non-invasive plant species.
 - Incorporating Low Impact Development design techniques.
 - Practicing the principles of integrated pest management.

- Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments.
- Policy OSC-8.7 Regional Collaboration. Continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Soquel Creek watershed. Participate in efforts to reduce storm water and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces to the maximum extent possible. Prohibit postproject peak storm water runoff discharge rates from exceeding the estimated pre-project rate.
- Action OSC-8.1 Stormwater Infrastructure. Develop a priority list and timeline for public stormwater drainage infrastructure improvements for all neighborhoods in Capitola.
- Action OSC-8.2 Funding for Stormwater Management. Identify funding sources to upgrade existing inadequate stormwater facilities and address on-site retention of contaminants.
- Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.

Applicable Regulations:

- NPDES General Construction Permit (NOI and SWPPP requirements)
- Storm Water Management Program
- Capitola Municipal Code, Chapter 13.16, Storm Water Pollution Prevention and Protection
- Capitola Municipal Code, Chapter 15.28.110(C), Design Standards for Cut and Fill Setbacks

Development within the Plan Area would not substantially degrade water quality and impacts are less than significant.

Significance Before Mitigation: Less than significant.

HYDRO-6 The proposed Plan would not result in a significant impact with respect to the placement of housing or structures, which would impede or redirect flood flows 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.

Future development in the Plan Area could result in the placement of structures in existing FEMA-designated 100-year Special Flood Hazard Areas (SFHAs). The areas within the city that are within the 100-year floodplain are shown on Figure 4.7-3.

The City has adopted standards for construction in flood hazard zones (Chapter 17.50 of the Capitola Municipal Code). Future development within the 100-year flood zone requires the placement of fill to elevate structures above the 100-year floodplain elevation. In order for a project to be considered outside of the floodplain and no longer subject to special flood hazard requirements, the project applicant has to submit an application to FEMA for a Letter of Map Revision – Fill (LOMR-F) after the fill has been placed. After FEMA has revised the Flood Insurance Rate Map (FIRM) to show that the project is now outside of the SFHA, the City will no longer be required to apply the minimum NFIP floodplain management standards to structures built on the land and the mandatory flood insurance requirements will no longer apply.

Construction within SFHAs is governed by Chapter 17.50, which sets forth standards for development that would minimize flood hazard risks, including the following:

- Anchoring and floodproofing;
- The requirement that the lowest floor, including the basement, is at or above the base flood elevation;
- The use of materials and utility equipment resistant to flood damage;
- The requirement that electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities be designed and/or located to prevent water from entering or accumulating within the components during flood conditions; and
- The requirement that all new and replacement water supply and sanitary sewage systems be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters.

Prior to the issuance of grading permits, the City requires project applicants to elevate building pads in accordance with City standards to ensure flood protection. Project developers must complete hydrology and hydraulic analyses that demonstrate that areas that are raised out of the floodplain and will not result in increases in off-site flood levels or redirect flooding to other properties. Also, prior to occupancy of any building, proof that a Letter of Map Revision (LOMR) has been obtained from FEMA must be provided to the City. Compliance with the FEMA and Capitola Municipal Code requirements will reduce potential flood hazards to less-than-significant levels.

Furthermore, the following policies and actions contained in the proposed Plan will further reduce potential impacts due to flooding:

- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Action OSC-8.1 Stormwater Infrastructure. Develop a priority list and timeline for public stormwater drainage infrastructure improvements for all neighborhoods in Capitola.
- Action OSC-8.2 Funding for Stormwater Management. Identify funding sources to upgrade existing inadequate stormwater facilities and address on-site retention of contaminants.

 Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.

Applicable Regulations:

- FEMA Regulations in floodplains LOMR-Fill Determination Requirements
- Capitola Municipal Code, Chapter 17.50, Design Floodplain District

Implementation of the proposed Plan would not result in significant impacts pertaining to the construction of housing or structures within a flood hazard and impacts are *less than significant*.

Significance Before Mitigation: Less than significant.

HYDRO-7The proposed Plan 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.

Based on the Local Hazard Mitigation Plan, there are no levees or dams that will impact the city in the event of failure. Thus, no impact would result with regard to the exposure of people or structures to a significant risk of loss, injury, or death involving the failure of a levee or dam.

Significance Before Mitigation: No impact.

HYDRO-8 The proposed Plan would not result in significant adverse effects related to inundation by seiche, tsunami, or mudflow.

Tsunami/Seiche

As shown in Figure 4.7-3, nearly all of Capitola Village is located within the tsunami inundation area, as mapped by Cal EMA. Other areas include a portion of Soquel Creek, from Capitola Beach to approximately one river mile upstream to Highway 1, and a portion of Noble Gulch (about ¼-mile), which flows into Soquel Creek. The Capitola shoreline could also be inundated. However, while the coastal cliffs will block inland flows, substantial erosion would likely occur as a result of a tsunami. As there is a potential for the Plan Area to be impacted by tsunamis, there is also a potential for tsunami-inducted seiches to occur along beach areas and lagoon within the Plan Area as well.

Tsunamis are caused by large offshore earthquakes and ocean landslides. Dangerous tsunamis in the Plan Area would most likely originate in the Aleutian and Chilean trenches, or the eastern coast of Japan or the Pacific Islands. The tsunami inundation area, as mapped by Cal EMA, is considered a maximum estimate (i.e., based upon the maximum tsunami run-up), taking into consideration a number of extreme, yet realistic, tsunami sources. In the event of a tsunami or seiche, people or structures within these areas could be exposed to a significant risk of loss, injury, or death due to flooding.

Based on the Local Hazard Mitigation Plan, tsunami flow depth estimates for the City are provided in Table 4.7-1. 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, the Plan Area 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.

Tsunami Source Location	Magnitude (Mw)	Approximate Travel Time	Tsunami Flow Depth (Feet Above Mean Sea Level)
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 ^a	Not Applicable	7-15 minutes	16

TABLE 4.7-1 TSUNAMI FLOW DEPTH ESTIMATES FOR CAPITOLA

a. A Monterey Canyon landslide could be triggered by an average earthquake.

Source: City of Capitola, Local Hazard Mitigation Plan, Table 28, page 81, adopted May 23, 2013.

Capitola is participating in the Tsunami Ready Program in order to mitigate the effects 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 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. Thus, although there is a potential risk to persons and property as a result of tsunamis, with implementation of the Tsunami Ready Program, as well as implementation of the City's emergency evacuation system, including the reverse 911, impacts in this regard are less than significant.

Mudflows

Based on the Local Hazard Mitigation Plan, due to steep topography, there is a potential for mudflows to occur below Wharf Road and above Soquel Creek, which could impact the Stockton Avenue Bridge and the Village. With implementation of the Capitola Municipal Code with regard to graded slopes, minimization of erosion potential, and implementation of the NPDES, impacts in this regard will be reduced to the greatest extent practicable. The proposed Plan could result in new development within the Village. However, the development potential is not considered a substantial increase of persons in the area. With implementation of the Capitola Municipal Code and the City's emergency evacuation plans including the reverse 911, implementation of the

proposed Plan would not result in a substantial increase in impacts pertaining to mudslides compared to the existing condition and impacts are less than significant.

Furthermore, the following policies and actions contained in the proposed Plan would further reduce potential impacts due to tsunamis, seiches, and mudflows:

- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces to the maximum extent possible. Prohibit postproject peak storm water runoff discharge rates from exceeding the estimated pre-project rate.
- Action OSC-8.1 Stormwater Infrastructure. Develop a priority list and timeline for public stormwater drainage infrastructure improvements for all neighborhoods in Capitola.
- Action OSC-8.2 Funding for Stormwater Management. Identify funding sources to upgrade existing inadequate stormwater facilities and address on-site retention of contaminants.
- Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.

Applicable Regulations:

Local Hazard Mitigation Plan

Development in the Plan Area would not result in substantial risk from tsunamis, seiches, or mudflows and impacts in this regard are *less than significant*.

Significance Before Mitigation: Less than significant.

4.7.4 CUMULATIVE IMPACT DISCUSSION

HYDRO-9 The proposed Plan, in combination with past, present, and reasonably foreseeable development, could result in significant cumulative impacts with respect to hydrology and water quality.

The analysis of cumulative hydrology and water quality impacts considers the larger context of future development within the watershed for the city. Cumulative impacts can occur when impacts that are significant or less than significant from a proposed project, combined with similar impacts from other past, present, or reasonably foreseeable future projects in a similar geographic area. Cumulative impacts could result from incremental changes that degrade water quality or contribute to drainage and flooding problems within the watershed or city.

As discussed previously, development within the city requires conformance with State and local policies that would reduce surface hydrology and water quality impacts to less-than-significant levels. Any new development within the

city is subject, on a project-by-project basis, to independent CEQA review as well as City policies and ordinances, design guidelines, zoning codes, and other applicable City requirements that reduce impacts related to surface hydrology and water quality. More specifically, potential changes related to stormwater quality, stormwater flows, drainage, impervious surfaces, and flooding would be minimized by the implementation of stormwater control measures, retention, infiltration, and LID measures, and review by the City's Public Works Department to integrate measures to reduce potential flooding impacts. With the implementation of the State and local standards and regulations, the impacts to water quality and surface-related hydrology would be reduced to a less-than-significant level.

All cumulative projects within the City are subject to similar permit requirements and would be required to comply with the Capitola Municipal Code, as well as numerous regional and local water quality regulations that control construction related and operational discharge of pollutants in stormwater. The water quality regulations implemented by the Central Coast RWQCB take a basin-wide approach and consider water quality impairment in a regional context. For example, the NPDES Construction Permit ties receiving water limitations and Basin Plan objectives to terms and conditions of the permit, and the MS4 Permit works with all municipalities to manage storm water systems to be collectively protective of water quality. For these reasons, impacts from future development within the City on surface hydrology and water quality are less than significant.

However, implementation of the proposed Plan could result in an increased demand of up to 124 afy, which could indirectly result in the over-drafting of the groundwater table and project-level impacts in this regard were determined to be significant. Implementation of the proposed Plan and other cumulative projects within the Basin could further exacerbate this impact. Thus, a cumulatively considerable *significant* impact exists.

The following goals, policies, and actions contained in the proposed Plan would reduce potential impacts to water quality and hydrology associated with planned development:

- Goal OSC-8. Provide for a high level of water quality.
- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.2 Non-Point Source Pollution. Minimize, avoid, or eliminate non-point source pollution by controlling storm water runoff, polluted dry weather runoff, and other pollution, in compliance with Capitola's National Pollutant Discharge Elimination System (NPDES) Permit and Storm Water Management Plan.
- Policy OSC-8.3 Best Management Practices. Require all new development, public and private, to meet or exceed State storm water requirements and incorporate best management practices to treat, infiltrate, or filter storm water runoff and reduce pollutants discharged into the storm drain system and surrounding coastal waters during construction and post-construction, to the maximum extent practicable.
- Policy OSC-8.4 Landscaping and Re-Vegetation. Require landscaping and re-vegetation of graded or disturbed areas for new development.
- Policy OSC-8.5 Native Plants. Encourage the use of native plants in landscaping to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation, and to be in compliance with Stormwater Pollution Prevention Plans.

- Policy OSC-8.6 City Properties. Design, construct, and maintain City properties in a manner that maximizes water quality protection through:
 - Designing new and renovated landscaped and paved areas that suit site conditions, protect water quality, and support sustainable maintenance.
 - Using drought-tolerant native and non-invasive plant species.
 - Incorporating Low Impact Development design techniques.
 - Practicing the principles of integrated pest management.
 - Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments.
- Policy OSC-8.7 Regional Collaboration. Continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Soquel Creek watershed. Participate in efforts to reduce stormwater and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces to the maximum extent possible. Prohibit postproject peak stormwater runoff discharge rates from exceeding the estimated pre-project rate.
- Action OSC-8.1 Stormwater Infrastructure. Develop a priority list and timeline for public stormwater drainage infrastructure improvements for all neighborhoods in Capitola.
- Action OSC-8.2 Funding for Stormwater Management. Identify funding sources to upgrade existing inadequate stormwater facilities and address on-site retention of contaminants.
- Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.

Applicable Regulations:

- NPDES General Construction Permit (NOI and SWPPP requirements)
- Storm Water Management Program
- Capitola Municipal Code, Chapter 13.16, Storm Water Pollution Prevention and Protection
- Capitola Municipal Code, Chapter 15.28.110(C), Design Standards for Cut and Fill Setbacks
- FEMA Regulations in floodplains LOMR-Fill Determination Requirements
- Capitola Municipal Code, Chapter 17.50, Design Floodplain District
- Local Hazard Mitigation Plan

Significance Before Mitigation: Significant.

4.7.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

HYDRO-2 The proposed Plan could 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.

Mitigation Measure HYDRO-2: There is no mitigation measure available to mitigate this impact to a less-than-significant level.

Significance After Mitigation: Significant and unavoidable. The proposed Plan could result in withdrawal of additional groundwater beyond sustainable groundwater supply associated with increased water demand. A reduction in groundwater below sustainable supply could result in the lowering of the local groundwater table and potentially result in saltwater intrusion. Saltwater intrusion into the groundwater supply could lead to contamination, further impacting the availability of groundwater supply. Although implementation of existing laws and regulations, as well as the proposed Plan policies, would reduce these impacts, the potential for overdraft of the groundwater table as a result of water supply increases in the Basin would remain significant. As no feasible mitigation measures are available to reduce these impacts to groundwater, project-level and cumulatively considerable significant and unavoidable impacts would remain.

HYDRO-9 The proposed Plan, in combination with past, present, and reasonably foreseeable development, could result in significant cumulative impacts with respect to hydrology and water quality.

Mitigation Measure HYDRO-9: There is no mitigation measure available to mitigate this impact to a less-than-significant level.

Significance After Mitigation: Significant and unavoidable. With implementation of the proposed Plan and other cumulative projects within the Basin, impacts to groundwater associated with increased water demand would be further exacerbated. Implementation of existing laws and regulations, as well as the proposed Plan policies would reduce these impacts. However, the potential for overdraft of the groundwater table and saltwater intrusion could further impact the availability of groundwater supply at a project and cumulative project level. As no feasible mitigation measures are available to reduce these impacts to groundwater supply, a cumulatively considerable significant and unavoidable impact would remain.

This chapter presents information on the regulatory framework and existing land use pattern in Capitola, and evaluates the potential environmental impacts that would result from implementation of the proposed Plan.

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 REGULATORY FRAMEWORK

This section describes the land use plans and regulations to the Plan Area.

State Regulations

Sphere of Influence

The Cortese-Knox Act (1986) established a Local Agency Formation Commission (LAFCO) in each county in California, empowering LAFCOs to review, approve, or deny proposals for boundary changes and incorporations for cities, counties, and special districts. LAFCOs establish a "sphere of influence" (SOI) for cities that describes the cities probable future physical boundaries and service areas. As stated in Chapter 3, Project Description, of this Draft EIR, Capitola's SOI extends beyond existing city limits slightly to the southern portion of the city, and mostly extends beyond the existing northern city limit, as shown in Figure 3-2 in Chapter 3, Project Description.

Regional and Local Plans and Regulations

Association of Monterey Bay Area Governments Sustainable Communities Strategy

The Association of Monterey Bay Area Governments (AMBAG) is the Metropolitan Planning Organization (MPO) for the Monterey Bay Area. AMBAG must coordinate with San Benito County Council of Governments, the Santa Cruz County Regional Transportation Commission, and the Transportation Agency for Monterey County to collectively develop and maintain a Metropolitan Transportation Plan (MTP).

The MTP is the federally mandated transportation plan for the Monterey Bay Area that is intended to identify a list of transportation projects for the next 25 years that will enhance regional transportation as well as reduce greenhouse gas emissions (GHGs). A new MTP is set to be adopted in June of 2014 to incorporate the requirements of Senate Bill 375 (SB 375).

SB 375 was passed in 2008 and requires the 18 MPOs in California to reduce per capita vehicle miles traveled (VMT) and GHGs through a coordinated land use and transportation plan called the Sustainable Communities

Strategy (SCS).¹ AMBAG's MTP will incorporate and serve as the SCS. The SCS will identify a preferred growth scenario for land use and transportation investments in the region. The SCS will not regulate land use or supersede local land use authority, and is being developed in coordination with local jurisdictions.²

Monterey Bay National Marine Sanctuary – Management Plan

In 1992, the Monterey Bay National Marine Sanctuary (MBNMS) was designated as a federally protected marine area offshore of California's central coast, comprised of 276 miles of shoreline and 5,322 square miles of ocean.³ The MBNMS stretches from about Marin County at its northern most point to Cambria at its southern boundary. In November of 2008, the Office of National Marine Sanctuaries released the final Monterey Bay National Marine Sanctuary Management Plan (Management Plan). The Management Plan is a revision of the original plan adopted in 1992, the same year as the MBNMS designation.⁴ The Management Plan establishes goals, policies, and regulations aimed at protecting the ocean and its resources within the boundaries of the National Marine Sanctuary, which includes coastal development activities.⁵ Coastal development is regulated through action plans, which further establish action plan strategies for coastal development activities such as coastal armoring, desalination, harbors and dredge disposal, and submerged cables.⁶

California Coastal Commission - Local Coastal Program

The California Coastal Commission (CCC) was established by voter initiative in 1972 after the approval of Proposition 20, and later made permanent by the Legislature through adoption of the California Coastal Act of 1976 (Coastal Act).⁷ Under the California Coastal Management Program, the CCC and local jurisdictions share responsibilities planning for and regulating development within the coastal zone through what is known as a Local Coastal Program (LCP).⁸ LCPs must include two parts: a land use plan with corresponding maps identifying local coastal issues and concerns, and implementation strategies to protect or address those concerns consistent with Statewide policies of the Coastal Act.⁹ According to the LCP, pursuant to Section 30500(a) of the Coastal Act, the City of Capitola exercised the option to have the CCC prepare the Land Use portion of the City's LCP, while the Implementation Plan was drafted by the City.¹⁰ Capitola's LCP was originally certified by the Coastal Commission in 1981, with subsequent revisions, updates, and amendments in 2000 and 2005. Land use-related policies within the LCP serve to:

¹ Association of Monterey Bay Area Governments, http://www.ambag.org/programs-services/planning/metro-transport-plan, accessed on October 1, 2013.

² Association of Monterey Bay Area Governments, http://www.ambag.org/programs-services/planning/metro-transportplan/frequently-asked-questions, accessed on October 2, 2013.

³ Monterey Bay National Marine Sanctuary, 2008, Final Management Plan, page 13.

⁴ Monterey Bay National Marine Sanctuary, 2008, Final Management Plan, page 13.

⁵ Monterey Bay National Marine Sanctuary, 2008, Final Management Plan, page 55.

⁶ Monterey Bay National Marine Sanctuary, 2008, Final Management Plan, page 60.

⁷ California Coastal Commission, http://www.coastal.ca.gov/whoweare.html, accessed on August 7, 2013.

⁸ California Coastal Commission, http://www.coastal.ca.gov/recap/rctop.html, accessed on August 7, 2013.

⁹ City of Capitola, 1981, Local Coastal Program, page 4.

¹⁰ City of Capitola, 1981, Local Coastal Program, page 5.

- Limit new development to that which can be accommodated by parking supplies and alternative transportation systems.
- Encourage a mixture of commercial and residential land uses in the Village and maintain existing residential areas as exclusively residential.
- Maintain the current scale and unique character of the Village.
- Allow the Village to evolve, but in a manner consistent with the current scale and historical character of the district.
- Prohibit new permanent structures on the open, sandy beaches.
- Prohibit development that obstructs public view to and along Capitola's shoreline.
- Maintain the special character of Depot Hill.

City of Capitola Plans and Regulations

City of Capitola Municipal Code

Capitola's Municipal Code sets forth regulations and policies for governing and implementing the visions and goals within the General Plan. As such, the Municipal Code includes important policies to guide development activities such as building and construction, zoning, housing, and health and safety. The Municipal Code aims to carry out the goals, visions, and objectives of the General Plan and provide the framework to which developers and the general public can refer for guidance on development projects.

Sections of the Municipal Code relevant to land use include Title 15, Buildings and Construction, Title 17, Zoning, and Title 18, Housing.

4.8.1.2 EXISTING CONDITIONS

The City of Capitola is a small coastal community located within Santa Cruz County comprising of 1.7 square miles and home to approximately 10,000 residents. Due to its beaches, historic charm, visitor-serving amenities, and scenic location, Capitola has evolved into a popular visitor destination.

Existing Land Use Pattern

This section summarizes existing land uses in Capitola. Existing land use refers to the type of business, activity, or use that occupies a property at the present moment. Existing land use is different from General Plan land use designations and zoning districts, which identify the land uses *permitted* by City regulations on a particular property.

Distribution of Existing Land Uses

Table 4.8-1 indicates the acreage in major land use categories in Capitola. As shown, Santa Cruz County assessor data from 2010 show approximately 442 acres (53.0 percent) of Capitola's total area in residential use; about 187 acres (21.0 percent) in commercial, industrial, and mixed use; and 195 acres (23.0 percent) categorized as other uses, such as open space/recreational (118 acres; 14 percent), public/quasi-public (44 acres; 5 percent), and vacant parcels (33 acres; 4 percent).

Neighborhoods and Districts

The City of Capitola has a distinct land use pattern that generally groups together a number of residential neighborhoods and several commercial, industrial, and mixed-use districts. Figure 4.8-1 shows the general boundaries of the residential neighborhoods, and Figure 4.8-2 shows the general boundaries of the mixed-use and commercial districts; all of these are described below.

Residential Neighborhoods

- 41st Avenue/West Capitola. The 41st Avenue/West Capitola neighborhood is comprised of detached singlefamily homes, multi-family housing, and three mobile home parks. Additionally, the Rispin Mansion, Shadowbrook property, and the Capitola Library are located along the eastern edge of the neighborhood.
- Cliffwood Heights. The Cliffwood Heights neighborhood consists primarily of detached single-family homes as well as multiple-family housing on Monterey Avenue and Park Avenue. New Brighton Middle School, Monterey Park, and Cortez Park are located within this neighborhood.
- Depot Hill. The Depot Hill neighborhood is characterized primarily by older, potentially historic detached single-family homes. Notable properties include the Inn at Depot Hill and the Monarch Cove Inn.
- Jewel Box. Jewel Box primarily consists of single-family homes, multi-family homes, and two mobile home parks. Jade Street Park as well as the Community Center can be found in the Jewel Box neighborhood.
- Upper Village. The Upper Village neighborhood includes single-family homes, multi-family apartment complexes along with three mobile home parks. The Quality Inn and the Bay Avenue Senior Housing complex are also located in the Upper Village neighborhood.

Commercial and Industrial Districts

41st Avenue/Capitola Mall. The 41st Avenue/Capitola Mall is a commercial district within the City of Capitola and contains numerous shopping centers, including the Capitola Mall and Kings Plaza shopping center, to serve the needs of the region. Other stores and shopping centers include the Auto Plaza, Whole Foods Market, New Leaf Community Market, and the Brown Ranch Shopping Center. A Best Western Inn along with a variety of other retail, office, and service establishments can also be found in this district.



Source: City of Capitola, 2010.



Source: City of Capitola, 2010.

Existing Land Use	Acres	Percent of Total
Residential		
Mobile Home Park	68	8
Single-Family	219	26
Multiple-Family	155	18
Subtotal	442	53
Commercial, Industrial, and Mixed Uses		
Retail	97	11
Office	17	2
Other Commercial	50	6
Industrial, Warehousing, and Storage	11	1
Mixed Use	12	1
Subtotal	187	21
Other Uses		
Open Space/Recreational	116	14
Public/Quasi-Public	57	7
Vacant Parcels	43	5
Subtotal	216	26
TOTAL ^a	845	100

TABLE 4.8-1 DISTRIBUTION OF EXISTING LAND USES

a. Total acres may vary in Capitola due to irregularities in mapping data, which will be corrected as part of the General Plan Update process. Source: Santa Cruz County Assessor, 2010.

- Bay Avenue. Primarily consisting of resident-serving retail and service establishments, the Bay Avenue commercial district includes a Nob Hill shopping center, La Capitola Plaza shopping center, Gayle's Bakery, and a vacant parcel north of Nob Hill.
- Kennedy Drive. The Kennedy Drive Industrial district is the light industrial area of Capitola, as well as the location of the City corporation yard.

Mixed-Use Districts

Capitola Village. The Capitola Village mixed-use district is described as the "heart" of Capitola. With a mixture of visitor-serving commercial establishments, public amenities, and residential uses, Capitola Village is a busy area of the city. Additionally, there is a high concentration of sought after destinations, such as Capitola Beach, Esplanade Park, the Six Sisters vacation rental, Capitola Hotel, Capitola Wharf, the Capitola Mercantile building, and the Venetian vacation rentals.

Capitola Avenue. The Capitola Avenue district is an eclectic assortment of small-scale offices, personal services, retail, multi-family homes, single-family homes, and a mobile home park. The Capitola Avenue district also includes Capitola City Hall, police station, fire station, and a historic museum situated toward the southern boundary of the district.

4.8.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would result in a significant land use impact if it would:

- 1. Physically divide an established community.
- 2. 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.
- 3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.8.3 ENVIRONMENTAL IMPACT DISCUSSION

This section discusses the Project-specific and cumulative impacts related to land use planning. This discussion is organized by and responds to each of the Standards of Significance.

LAND-1 The proposed Plan would not physically divide an established community.

The proposed Plan is a long-range policy document that seeks to guide future development in a way that builds on and complements the existing land use pattern in Capitola. The Plan does not include specific elements that would physically divide an existing community. The Plan contains policies and actions intended to foster greater connectivity in the Plan Area and to prevent new development from dividing existing communities.

Additionally, compliance with the provisions contained in the Capitola Municipal Code, including the development standards governing height, lot width, frontage, and setbacks, would further minimize the potential for physical division of existing neighborhoods. Therefore, with implementation of the above-listed policies and actions from the proposed Plan and compliance with the relevant provisions of the Capitola Municipal Code, the proposed Plan would result in a *less-than-significant* impact.

Applicable Regulations:

- Capitola Municipal Code, Title 15, Buildings and Construction
- Capitola Municipal Code, Title 17, Zoning

Significance Before Mitigation: Less than significant.

LAND-2 The proposed Plan would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Per State law, the General Plan is the primary planning document for the community. Once adopted, the proposed Plan would replace the 1989 Capitola General Plan.

Association of Monterey Bay Area Governments Sustainable Communities Strategy

The SCS for the AMBAG region is under development and is anticipated to be adopted in June of 2014 to incorporate requirements under SB 375. The MTP will not directly regulate local land use nor supersede local land use authority. Therefore, the proposed Plan would not conflict with the SCS.

Therefore, upon adoption and implementation of the proposed General Plan, other Capitola regulations, such as the Zoning Ordinance would need to be updated to ensure consistency. Because the General Plan is the overriding planning document for the city, the impact would be *less than significant*.

Local Coastal Program

As previously mentioned, State law requires all coastal communities to prepare and adopt a Local Coastal Program (LCP) as a way to implement the Coastal Act of 1976. As such, LCPs must include a land use plan that sets forth goals and policies regulating land uses within coastal areas, as well as ensuring the local zoning code implements those goals and policies. Capitola's LCP was prepared in 1981 and contains General Policies that apply to all areas within the coastal zone.

The proposed Plan contains several goals, policies, and actions that are consistent with the policies of the LCP, such as the following:

- Policy LU-1.1 Community Character. Ensure that new development maintains and enhances Capitola's neighborly feel, coastal village charm, and welcoming character.
- Policy LU-2.1 Historic Structures. Encourage the preservation, maintenance, and adaptive reuse of important historic structures in Capitola.
- Goal LU-3. Promote sustainable land use patterns that encourage transportation alternatives and reduce greenhouse gas emissions.
- Policy LU-3.3 Infill Development. Support well-designed infill development on vacant and underutilized sites that enhances Capitola's quality of life.
- Policy LU-3.4 Transit and Pedestrian Access. Encourage new residential and employment development in areas well-served by transit and within walking distance of stores, services, and public facilities.
- Policy LU-3.7 Regional Outlook. Support land uses in Capitola that contribute to a more sustainable regional development pattern in Santa Cruz and the Monterey Bay Area. Consider the benefits and impacts of new development in Capitola to neighboring jurisdictions and the region as a whole.

Although the proposed Plan would allow for development along coastal areas, the policies, goals, and actions of the Plan would be consistent with the LCP, therefore, the impact would be less than significant.

Applicable Regulations:

- Association of Monterey Bay Area Governments Sustainable Communities Strategy
- City of Capitola, Local Coastal Program

Significance Before Mitigation: Less than significant.

LAND-3 The proposed Plan would not conflict with the Monterey Bay National Marine Sanctuary Management Plan.

There are no legal Habitat Conservation Plans (HCPs) as defined in the federal Endangered Species Act Section 10(a)(2)(A) that are applicable to the Plan Area;¹¹ however, this section considers potential impacts related to conflicts with the Monterey Bay National Marine Sanctuary Management Plan (MBNMSP). The MBNMSP is the only conservation related plan that is applicable to Capitola.

The proposed Plan contains numerous policies that would seek to achieve protection of the ocean and its resources, consistent with the MBNMSP, including:

- Policy LU-3.7 Regional Outlook. Support land uses in Capitola that contribute to a more environmentally sustainable development regional development pattern in Santa Cruz and the Monterey Bay Area. Consider the benefits and impacts of new development in Capitola to neighboring jurisdictions and the region as a whole.
- Policy LU-13.4 New Brighton State Beach. Cooperate with the California Department of Parks and Recreation and other agencies to maintain, improve, and preserve New Brighton State Beach in a natural state to serve the region with a variety of nature-oriented and passive recreational opportunities.
- Policy LU-13.6 Beach Management. Manage activities and uses in the beach area so that the beach continues to be a safe and enjoyable place for people of all ages and abilities.
- Policy LU-13.7 Beach Structures. Prohibit permanent structures on the open, sandy beach area except for facilities required for public health and safety, to improve public access, or to maintain the health of the beach. Additions to the Capitola Wharf to improve public access and enjoyment are encouraged.
- Action LU-14.3 Coastal Recreation. Explore opportunities to increase coastal recreational activities in Capitola, particularly activities that support environmental awareness and stewardship of the marine and coastal environment.

Although the proposed Plan, at buildout, could result in development along the ocean, policies and goals encourage infill development and uses of existing structures whenever possible. Therefore, the above policies, in

¹¹ Bay Area Open Space Council, Stewardship Committee, 2008, Habitat Conservation Planning in the Bay Area.

combination with other existing plans and subsequent applicable permitting and review requirements, would ensure the implementation of the proposed Plan would result in a *less-than-significant* impact with respect to the MBNMSP.

Applicable Regulations:

Monterey Bay National Marine Sanctuary Plan

Significance Before Mitigation: Less than significant.

4.8.4 CUMULATIVE IMPACT DISCUSSION

LAND-4 The proposed Plan, in combination with past, present, and reasonably foreseeable development in the surrounding area, would result in less-than-significant-cumulative impacts with respect to land use and planning.

In the case of an area-wide planning document such as the proposed Plan, cumulative land use effects occur from development under the proposed Plan combined with effects of past, present, and reasonably foreseeable development on adjacent land.

Although the proposed Plan would allow residential development on land throughout the Plan Area, the policies' actions and goals would ensure a cohesive, diverse, and accommodating variety of residence types to meet the needs of its residents. As such, policies in the proposed Plan would ensure the scale, density, and types of residential and commercial development under the Plan would be unobtrusive and consistent with what currently exists. Any new development would be subject to its own project-specific environmental review and applicable zoning and building codes, further reducing or eliminating the impact of development that could otherwise cause significant impacts. Additionally, many of the policies within the proposed Plan seek to revitalize or utilize existing structures through infill development within the Plan Area before developing new land, thereby reducing impacts that could result from developing adjacent land.

With respect to cumulative land use impacts from conflicts with applicable habitat conservation plans or natural community plans, as discussed above, Plan-specific impacts related to conflicts with the MBNMSP would be less than significant. Although the Plan would permit development and construction along coastal areas throughout the year 2035, adherence to policies, goals and actions of the proposed Plan, along with applicable State and federal laws would ensure that the Project does not contribute to cumulative impacts to marine areas.

Applicable Regulations:

- Association of Monterey Bay Area Governments Sustainable Communities Strategy
- Monterey Bay National Marine Sanctuary Management Plan
- California Coastal Commission Local Coastal Program
- City of Capitola Housing Element 2007-2014

Significance Before Mitigation: Less than significant.

4.8.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The project would not result in any significant project-specific or cumulative impacts to land use and planning and therefore no mitigation measures are required.

4.9 NOISE

This chapter describes the noise related regulatory framework and existing conditions in the Plan Area, as well as the potential impacts of the proposed Plan on the noise environment. Noise calculations on which the analysis is based are included in Appendix C, Noise Monitoring and Modeling Data.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 BACKGROUND AND NOISE TERMINOLOGY

Noise Descriptors

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and should be approximated by the A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessments.

Community noise is commonly described in terms of the "ambient" nose level, which is defined as the allencompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn} , and shows very good correlation with community responses to noise.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Figure 4.9-1.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

NOISE



Source: Melville C. Branch and R. Dale Beland, Outdoor Noise in the Metropolitan Environment, 1970. Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004), March 1974.

Figure 4.9-1 Sound Levels and Human Response

Numerous methods have been developed to measure sound over a period of time; see Table 4.9-1.

Term	Definition			
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of			
	ine pressure of a measured sound to a reference pressure (20 micropascals).			
	A sound measurement scale that adjusts the pressure of individual frequencies according to human			
A-Weighted Decibel (dBA)	sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear			
	is between 2,000 and 4,000 cycles per second (hertz).			
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period.			
	The Leq is the value that expresses the time averaged total energy of a fluctuating sound level.			
Maximum Sound Level (L _{max})	The highest individual sound level (dBA) occurring over a given time period.			
Minimum Sound Level (Lmin)	The lowest individual sound level (dBA) occurring over a given time period.			
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime,			
	evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to			
	10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM			
Day/Night Average (L _{dn})	The L _{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the			
	U.S. Environmental Protection Agency for developing criteria for the evaluation of community noise			
	exposure. It is based on a measure of the average noise level over a given time period called the			
	L_{eq} . The L_{dn} is calculated by averaging the L_{eq} 's for each hour of the day at a given location after			
	penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM), by 10 dBA to account for the			
	increased sensitivity of people to noises that occur at night.			
	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (Lo1, L10, L50, L90,			
Exceedance Level (Ln)	respectively) of the time during the measurement period.			

TABLE 4.9-1NOISE DESCRIPTORS

Source: Cyril M. Harris, Handbook of Noise Control, dated 1979.

Health Effects

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories: Noise-Induced Hearing Loss, Interference with Communication, Effects of Noise on Sleep, Effects on Performance and Behavior, Extra-Auditory Health Effects, and Annoyance.

Noise-Induced Hearing Loss

Although it often causes discomfort and sometimes pain, noise-induced hearing loss usually takes years to develop. Noise-induced hearing loss can impair one's quality of life through a reduction in the ability to hear important sounds and to communicate with others. Hearing loss is one of the most obvious and easily quantified effects of excessive exposure to noise. While the loss may be temporary at first, it could become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly caused by the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, substantial damage can be caused by non-occupational sources. According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure.

Interference with Communication

Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise. Interference with communication has proved to be one of the most important components of noise-related annoyance.

Effects of Noise on Sleep

Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Effects on Performance and Behavior

Recent research indicates that more moderate noise levels can produce disruptive after-effects, commonly manifested as a reduced tolerance for frustration, increased anxiety, decreased incidence of "helping" behavior, and increased incidence of "hostile" behavior.

Extra-Auditory Health Effects

Noise has been implicated in the development or exacerbation of a variety of health problems, ranging from hypertension to psychosis. As with other categories, quantifying these effects is difficult due to the amount of variables that need to be considered in each situation. As a biological stressor, noise can influence the entire physiological system. Most effects seem to be transitory, but with continued exposure some effects have been shown to be chronic in laboratory animals.

Annoyance

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community is highly annoyed. When levels exceed 65 dBA CNEL, that percentage rises to 15

percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

Vibration

Vibrations caused by construction activities can be interpreted as energy transmitted in waves through the soil mass. These energy waves generally dissipate with distance from the vibration source as a result of spreading of the energy and frictional losses. The energy transmitted through the ground as vibration, if great enough, can result in structural damage. To assess the potential for structural damage associated with vibration from construction activities, the vibratory ground motion in the vicinity of an affected structure is measured in terms of peak particle velocity (PPV), typically in units of inches/second.

4.9.1.2 POLICIES AND REGULATIONS

Federal

The Federal Noise Control Act of 1972 established programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, the U.S. Environmental Protection Agency (EPA) administrators determined that subjective issues such as noise would be better addressed at more local levels of government, thereby allowing more individualized control for specific issues by designated federal, State, and local government agencies. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to specific federal agencies, and state and local governments. However, noise control guidelines and regulations contained in the EPA rulings in prior years remain in place.

State

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation. State regulations governing noise levels generated by individual motor vehicles (i.e., the California Vehicle Code) and those governing occupational noise control (i.e., Occupational Safety and Health Administration) are not applicable to planning efforts nor are these areas typically subject to California Environmental Quality Act (CEQA) analysis. Thus, these regulatory guidelines are not included in this analysis.

Title 24

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for residential buildings (CCR Title 24, Part 2, Chapter 12, Section 1207.11.2). Title 24 establishes standards for interior room noise attributable to outside noise sources. Title 24 also specifies that acoustical studies should be prepared whenever a residential building or structure is proposed to be located in areas with exterior noise levels of 60 dB L_{dn} or greater. The acoustical analysis must show that the building has been designed to limit intruding noise to an interior level not exceeding 45 dB L_{dn} for any habitable room.

Governor's Office of Planning and Research

The State of California General Plan Guidelines, published by the State Governor's Office of Planning and Research (OPR), provides guidance for the acceptability of specific land use types within areas of specific noise exposure. Table 4.9-2, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. OPR guidelines are advisory in nature. Local jurisdictions, including the City of Capitola, have the responsibility to set specific noise standards based on local conditions.

TABLE 4.9-2 LAND USE COMPATIBILITY FOR COMMUNITY NOISE Environments

		Community Noise Exposure			
Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 – 70	70 – 75	75 – 85	
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	75 – 85	
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	80 - 85	
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85	
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 - 85	
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 77.5		
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 - 85	
Office Buildings, Business Commercial and Professional	50 – 70	67.5 – 77.5	75 – 85	NA	
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA	

Notes: CNEL = community noise level; NA = not applicable

NORMALLY ACCEPTABLE: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

NORMALLY UNACCEPTABLE: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise-insulation features must be included in the design.

CLEARLY UNACCEPTABLE: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, California, General Plan Guidelines, October 2003.

As depicted in Table 4.9-2, the range of noise exposure levels overlap between the normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable categories. The OPR's State of California
General Plan Guidelines note that noise planning policy needs to be rather flexible and dynamic to reflect not only technological advances in noise control, but also economic constraints governing application of noise-control technology and anticipated regional growth and demands of the community. In project-specific analyses, each community must decide the level of noise exposure its residents are willing to tolerate within a limited range of values below the known levels of health impairment. Therefore, the City may use their discretion to determine which noise levels are considered acceptable or unacceptable, based on land use, project location, and other project factors.

City of Capitola Noise Standards

Capitola General Plan

The City of Capitola's existing Noise Element, which was adopted in 1989, will be replaced as part of the proposed plan. Specifics of the proposed Noise Element are discussed below in Section 4.9.3, Environmental Impact Discussion.

Capitola Noise Ordinance

The City of Capitola's regulations with respect to noise are included in Chapter 9.12 (Noises) of the Municipal Code, also known as the Noise Ordinance. The City's Municipal Code provides provisions for prohibited types of noise, construction and operational noise restrictions, and other noise regulations.

Section 9.12.010 of the Noise Ordinance sets forth the following general noise prohibitions:

- A. It is unlawful for any person, firm or corporation to make, or permit to be made, any loud, boisterous, irritating, penetrating or unusual noise, or to keep, harbor or maintain, or to permit the keeping, harboring or maintaining of any barking or howling dogs, or to engage in, hold, conduct, operate, or permit the engaging in, holding, conduct or operation of, any business, public meeting or gathering, game, dance, amusement, appliance, contrivance, device, structure, construction, ride, machine, implement, or instrument, the use, engaging in, conduct or operation of which makes a loud, penetrating, irritating, boisterous or unusual noise, within two hundred feet of any residence, hotel, apartment house, cabin, cottage, cottage court, lodging facility or any building or place regularly used for sleeping purposes in the city between the hours of ten p.m. and eight a.m. of any day or days.
- B. Except when otherwise specified in a land use permit or building permit issued by the city, any construction activity within the city shall be subject to a construction noise curfew. Construction noise shall be prohibited between the hours of nine p.m. and seven-thirty a.m. on weekdays. Construction noise shall be prohibited on weekends with the exception of Saturday work between nine a.m. and four p.m. or emergency work approved by the building official.

Section 9.12.080 of the Noise Ordinance sets forth exemptions for the noise curfew regulations set forth in Section 9.12.010:

A. This chapter shall not apply to refuse collection, recyclable collection, beach maintenance or street sweeping activities undertaken by, or pursuant to contract with, the city of Capitola. Similarly, this chapter shall not apply to any other activity

undertaken by the city, or city contractor for public health and safety purposes when, in the judgment of the city, such activity cannot be undertaken effectively or efficiently in compliance with the regulations set forth in this chapter.

- B. The noise curfew regulations set forth in Section 9.12.010 shall not apply to any person engaged in performance of a contract for public works awarded by the city of Capitola or other governmental agency where the city of Capitola director of public works determines that the project has the potential to disrupt traffic and that this disruption could be alleviated by authorizing construction work during noise curfew hours or that due to time constraints on project completion it is necessary to allow the contractor to work during noise curfew hours.
- C. This chapter shall not apply to any person engaged in performance of a contract for public works awarded by the city of Capitola or another governmental agency in the event of emergency and if the city manager of Capitola so authorizes such work.

4.9.1.3 EXISTING NOISE ENVIRONMENT

Stationary Noise Sources

Commercial and industrial land uses located near residential areas currently generate occasional noise impacts. The primary noise sources associated with these facilities are caused by delivery trucks, air compressors, generators, outdoor loudspeakers, and gas venting. Other significant stationary noise sources in the city may include noise from construction activities and landscaping equipment. Residential land uses and areas identified as noise-sensitive must be protected from excessive noise from stationary sources including commercial and industrial centers. These impacts are best controlled through effective land use planning and application of the City Noise Ordinance.

Construction

Construction noise is one of the most common stationary noise sources in the city. The use of pile drivers, drills, trucks, pavers, graders, and a variety of other equipment can result in short and sporadic elevated noise levels. Although construction noise impacts are generally short-term in nature, it can often disturb nearby sensitive uses.

Parks

The City of Capitola has seven public parks totaling more than 18 acres, with the largest being Jade Street Park. Jade Street Park is a 9.9-acre park and community center intended to serve the entire community. Jade Street Park amenities include the community center, athletics fields, tennis courts, and playground equipment. The School District, which owns the Jade Street Park property, intends to construct a new elementary school on the property.

Commercial, Industrial, and Mixed-Use Development

Commercial, industrial, and mixed-use development occupies 21 percent (176 acres) of the city. These uses are primarily located along the 41st Avenue corridor, as well as along Capitola Avenue, Bay Avenue, Kennedy Drive, and Capitola Village. Community and neighborhood shopping centers are located throughout the City. The City corporation yard, as well as industrial and service establishments, is located along Kennedy Drive near Highway 1.

Noise sources associated with commercial, industrial, and mixed-use development may include mechanical equipment, power tools, stereos, musical instruments, sporting events, and cars/trucks in parking lots. These noise sources have the potential to temporarily disrupt the quietness of an area.

Non-Stationary Noise Sources

Motor Vehicle Noise

Roadway noise levels throughout the City were projected using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. The FHWA model is based upon reference energy mean emission levels (REMELS) for automobiles, medium trucks (two axles) and heavy trucks (three or more axles), with consideration given to vehicle volume, speed, roadway configuration, distances to the receiver, and the acoustical characteristics of the site. The California Vehicle Noise (Calveno) traffic noise emission curves are used as recommended by the California Department of Transportation (Caltrans) to more accurately calculate noise levels generated by traffic in California. Additionally, freeway noise levels and contours were projected using the FHWA Traffic Noise Model version 2.5 (TNM 2.5). TNM 2.5 uses advances in personal computer hardware and software to improve upon the accuracy and ease of modeling noise from high volumes of traffic and vehicle speeds associated with freeways.

Existing noise contours were calculated for the City's major arterial, minor arterial, local, and collector roadways; refer to Table 4.9-3. The noise generation for each roadway link was calculated and the distance to the 60 dBA CNEL, 65 dBA CNEL, and 70 dBA CNEL contours was determined. As shown in Table 4.9-3, the existing traffic noise levels range from a low of 52.0 CNEL along Wharf Road from Clares Street to Capitola Road, to a high of 68.1 CNEL along 41st Avenue from Gross Road to Clares Street. Figure 4.9-2 depicts the approximate location of the existing traffic noise contours within the City.

Freeways typically result in greater noise levels than other roadways due to higher traffic volumes and vehicle speeds. As shown in Figure 4.9-2, Highway 1 adjoins the City of Capitola to the north in an east-west direction and represents a primary source of traffic noise. Based on data from Caltrans, the average daily traffic along the segments of Highway 1 that pass through Capitola ranges from 85,000 vehicles to 98,000 vehicles for both northbound and southbound traffic.

Truck Routes

The City of Capitola does not have any designated truck routes, or an ordinance that establishes such routes. The majority of the existing truck traffic travels along the existing arterial roads, particularly 41st Avenue, Clares Street, Capitola Road, Bay Avenue, Capitola Avenue and East Cliff Drive in and out of the Village. Noise generated by trucks is included as part of the existing noise levels in Table 4.9-3.

Rail Noise

The Santa Cruz Branch rail line extends generally east to west through Capitola. This rail line is used for recreational, preservation, and future transportation uses throughout Santa Cruz County. Within Capitola there are two at-grade crossings and two trestles, including a major crossing over Soquel Creek. The right-of-way is generally



TABLE 4.9-3 EXISTING TRAFFIC NOISE LEVELS

			Distance from Roadway Centerline to: (Feet)			
Roadway Segment	ADT	Feet from Roadway Centerline	60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
41 st Avenue						
Northbound Highway 1 ramps to Gross Road	30,162	66.5	520	164	52	
Gross Road to Clares Street	43,957	68.1	758	240	76	
Clares Street to Capitola Road	25,284	65.6	436	138	44	
Capitola Road to Jade Street	18,977	64.5	327	103	33	
Jade Street to City Limits	18,977	61.7	163	51	16	
Capitola Road						
City Limits to Clares Street	18,009	61.2	154	49	15	
Clares Street to 41st Avenue	19,022	61.4	163	52	16	
41 st Avenue to 42 nd Avenue	13,036	59.7	112	35	11	
46 th Avenue to 49 th Avenue	12,771	60.0	110	35	11	
49th Avenue to Wharf Road	8,334	58.1	71	23	7	
Clares Street						
40th Avenue to 41st Avenue	6,440	56.9	55	17	6	
41 st Avenue to 42 nd Avenue	4,640	55.5	40	13	4	
46th Avenue to Wharf Road	3,400	54.2	29	9	3	
Wharf Road						
Clares Street to Capitola Road	2,048	52.0	18	6	2	
Capitola Road to Cliff Drive	10,129	58.9	87	27	9	
Cliff Drive						
47th Avenue to Wharf Road	8,923	55.5	55	26	12	
Wharf Road to Capitola Avenue	13,179	60.1	113	36	11	
Bay Avenue						
Northbound Highway 1 ramps to Hill Street	19,990	61.7	172	54	17	
Hill Street to Capitola Avenue	18,922	61.5	162	51	16	
Capitola Avenue to Monterey Avenue	8,506	58.2	73	23	7	

TABLE 4.9-3	Existing Traffic Noise L	EVELS
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				Distance from Roadway Centerline to: (Feet)			
Roadway Segment	ADT	dBA @ 100 Feet from Roadway Centerline	60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour		
Capitola Avenue							
Bay Avenue to Riverview Drive	5,750	56.5	49	16	5		
Riverview Drive to Stockton Avenue	6,728	57.2	58	18	6		
Stockton Avenue to Monterey Avenue	6,562	57.1	56	18	6		
Monterey Avenue							
Washburn Avenue to Bay Avenue	4,438	55.4	38	12	4		
Bay Avenue to Park Avenue	4,015	54.9	34	11	3		
Park Avenue to Capitola Avenue	9,758	58.8	84	27	8		
Park Avenue							
Northbound Highway 1 ramps to Kennedy Drive	21,715	60.9	127	59	27		
Kennedy Drive to Coronado Street	9,607	58.9	93	43	20		
Coronado Street to Monterey Avenue	8,648	59.9	107	34	11		

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Traffic noise modeling is based on traffic data provided by RBF Consulting, September 2013.

50 to 60 feet wide. Noise from the railroad occurs very intermittently, and at present (October 2013) no trains are operating on the tracks. Future planned transportation uses within this right-of-way include passenger rail service, bicycle and pedestrian facilities, and freight rail service. However, since rail service is not currently operating through Capitola, the railroad is not considered a significant noise source within the city.

Sensitive Receptors

Sensitive populations are more susceptible to the effects of noise and air pollution than are the general population. Noise sensitive land uses include residential, schools, playgrounds, athletic facilities, hospitals, rest homes, rehabilitation centers, long-term care, and mental care facilities. Generally, a sensitive receptor is identified as a location where human populations (especially children, senior citizens, and sick persons) are present, and where there is a reasonable expectation of continuous human exposure to noise.

Noise receptors categorized as being least sensitive to noise include industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, motorcycle parks, rifle ranges, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals. These types of land uses often generate high noise levels. Moderately sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, and outpatient clinics. Current land uses

located within the city that are sensitive to intrusive noise include residential uses, schools, hospitals, churches, and parks.

Ambient Noise

Capitola's noise environment is dominated by vehicular traffic, including vehicular generated noise along Highway 1, as well as arterial roadways. The arterials that serve the City are 41st Avenue, Capitola Road, Clares Street, Park Avenue, Capitola Avenue, Monterey Avenue, and Bay Avenue. These roadways have been designed to specifically carry large volumes, although long-established land use patterns have placed residential uses along some portions of these roadways.

Noise measurements were taken throughout Capitola at five locations as described below and shown in Table 4.9-4. The noise measurement locations were selected as a representative sample of the more urbanized portions of the city in order to identify ambient baseline levels. Noise measurements were conducted during non-peak traffic hours since free flowing traffic conditions yield higher noise levels, as opposed to rush hour traffic during peak hours when vehicle speeds and heavy truck volumes are low. Noise levels at the selected sensitive receptor sites were measured by RBF Consulting on October 3, 2013, using a Brüel & Kjær Model 2250 sound level meter (SLM) equipped with a Brüel & Kjær pre-polarized freefield microphone, which meets standards of the American National Standards Institute (ANSI) for general environmental noise measurement instrumentation.

Site Number	Location	L _{eq} (dBA)	L _{min} (dBA)	L _{max} (dBA)	Peak (dBA)	Date and Time
1	Alma Lane cul-de-sac, off of Rosedale Avenue	46.2	36.6	67.4	97.1	October 3, 2013 8:56 AM
2	Derby Avenue cul-de-sac, off of Clares Street	47.9	41.3	71.5	91.7	October 3, 2013 9:52 AM
3	Capitola Mall parking lot, off of 41st Avenue	58.7	51.7	71.3	95.7	October 3, 2013 9:37 AM
4	Diamond Street cul-de-sac, between 42 nd and 45 th Avenue	47.5	37.9	70.3	98.3	October 3, 2013 9:18 AM
5	Capitola Village, near the intersection of Esplanade and San Jose Avenue	57.0	47.4	80.0	99.4	October 3, 2013 10:08 AM

TABLE 4.9-4 EXISTING NOISE LEVELS

Notes: L_{eq} = equivalent sound level; dBA = A-weighted decibel.

Source: RBF Consulting, Noise Monitoring Survey, October 3, 2013.

- Measure Site 1 is located at the Alma Lane cul-de-sac, in a residential neighborhood off of Rosedale Avenue. Sources of peak noise included traffic on Rosedale Avenue, and birds chirping. The noise level monitored at Site 1 was 46.2 dBA.
- Measure Site 2 is located on Derby Street, in a residential neighborhood off of Clares Street. Sources of peak noise included traffic on Derby Street. The noise level monitored at Site 2 was 47.9 dBA.

- Measure Site 3 is located at the Capitola Mall parking lot, off of 41st Avenue. Sources of peak noise included traffic along 41st Avenue, and cars and pedestrians in the parking lot. The noise level monitored at Site 3 was 58.7 dBA.
- Measure Site 4 is located on Diamond Street, in a residential neighborhood between 42nd and 45th Avenue. Sources of peak noise included traffic on Diamond Street. The noise level monitored at Site 4 was 47.5 dBA.
- Measure Site 5 is located at Capitola Village, near the intersection of Esplanade and San Jose Avenue. Sources of peak noise included traffic, people walking/talking, delivery trucks in the area, and recycling activities. The noise level monitored at Site 5 was 57.0 dBA.

4.9.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact regarding noise if it would

- 1. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- 2. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- 3. Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels;
- 4. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- 5. For a project located within an airport land use plan or, where such plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; and/or
- 6. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

4.9.3 ENVIRONMENTAL IMPACT DISCUSSION

NOISE-1 Construction-related activities resulting from implementation of the proposed Plan would not result in the generation of noise levels in excess of established standards.

The proposed Plan would result in limited development within the city, which would generate noise during construction activities. This development would primarily occur within commercial and mixed-use land use designations and throughout the city where existing development has not reached the potential allowed by the General Plan designations. Given the fact that the city is largely built-out, it is unlikely the City would experience intensive construction activity with implementation of the proposed Plan. Construction noise levels have not been

modeled at this program level of analysis, as the extent and timing of future construction activities within the city are unknown.

Typical activities associated with construction are a highly noticeable temporary noise source. Noise from construction activities is generated by two primary sources: 1) the transport of workers and equipment to construction sites, and 2) the noise related to active construction equipment. These noise sources can be a nuisance to local residents and businesses or unbearable to sensitive receptors (e.g., residences, hospitals, senior centers, schools, day care facilities).

Goals, policies, and actions in the proposed Plan include policies to ensure that noise generated from construction activities comply with the noise level standards set forth in Table 4.9-2, and require an acoustical analysis for all proposed projects that would locate noise sensitive land uses where the projected ambient noise level is greater than the respective "normally acceptable" noise level in Table 4.9-2. Additionally, construction is required to comply with Section 9.12.010 of the City's Noise Ordinance, which prohibits construction activities that are within 200 feet of a sensitive receptor between 10:00 p.m. and 8:00 a.m. any day. The Noise Ordinance also prohibits construction between 9:00 p.m. and 7:30 a.m. on weekdays. Construction on weekends is prohibited except between 9:00 a.m. and 4:00 p.m. on Saturdays. Compliance with the goals, policies, and actions within the proposed Plan and the City's Noise Ordinance would reduce short-term construction noise impacts to less than significant levels.

The following goals, policies, and actions contained in the proposed Plan would ensure that new development projects would minimize impacts related to construction noise:

- Goal SN-7. Minimize the community's exposure to excessive noise.
- Policy SN-7.1 Noise Sensitive Land Uses. Minimize the exposure of noise sensitive land uses to unacceptable land uses as identified in Table SN-1 (*refer to Table 4.9-2 above*). Noise sensitive land uses shall be as determined by the Community Development Director, including land uses such as residential areas, lodging facilities, libraries, schools, parks, and medical care facilities.
- Policy SN-7.2 Noise Level Standards. Ensure that noise generated from all land uses and activities in Capitola complies with the noise level standards identified in Table SN-1 (*refer to Table 4.9-2 above*). The City Council may allow exceptions to these noise level standards when mitigation of noise impacts is not technically or economically feasible or inconsistent with other City goals, policies, and regulations.
- Policy SN-7.3 Noise Control Ordinance. Maintain Capitola's Noise Ordinance (Municipal Code Chapter 9.12), which addresses the hours of operation of construction equipment, outdoor power tool use, leaf blowers, parking area vacuums, loud parties and activities, and vehicle noise.

Applicable Regulations:

- Office of Planning and Research, California, General Plan Guidelines, October 2003
- City of Capitola Municipal Code, Chapter 19.12 Noises

Development within the Plan Area would not result in excessive noise levels and impacts are less than significant.

Significance Before Mitigation: Less than significant.

NOISE-2 Construction-related activities resulting from implementation of the propose Plan could generate or expose persons or structures to excessive ground-borne vibration.

Future construction activities associated with development within the Plan Area could generate excessive groundborne vibration noise levels. Grading and other construction activities associated with development within the Plan Area could be a nuisance to local residents and businesses or be unbearable to sensitive receptors (e.g., residences, hospitals, senior centers, schools, and daycare facilities).

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena and those introduced by human activity. Vibration levels can be depicted in terms of amplitude and frequency relative to displacement, velocity, or acceleration. Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root mean square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings. PPV and RMS vibration velocity are normally described in inches per second (inches/second). Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. The response of the human body to vibration relates well to average vibration amplitude; therefore, vibration impacts on humans are evaluated in terms of RMS vibration velocity. Similar to airborne sound, vibration velocity can be expressed in decibel notation as vibration decibels (VdB). The logarithmic nature of the decibel serves to compress the broad range of numbers required to describe vibration.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage at distances beyond 25 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. Construction activities that may result under the proposed Plan have the potential to generate low levels of ground-borne vibration. Table 4.9-5 identifies various vibration velocity levels for types of construction equipment that would operate within the city during construction.

Similar to noise, ground-borne vibration would attenuate at a rate of approximately 6 VdB per doubling of distance. The ground-borne vibration generated during construction activities would primarily impact existing sensitive uses that are located adjacent to or within the vicinity of specific projects. Based upon the information provided in Table 4.9-5, vibration levels could reach up to 87 VdB for typical construction activities (and up to 104 VdB if pile driving activities were to occur) at sensitive uses located within 25 feet of construction. For sensitive uses that are located at or within 25 feet of potential project construction sites, sensitive receptors at these locations may experience vibration levels during construction activities that exceed the Federal Transit Administration's (FTA) vibration impact threshold of 85 VdB for human annoyance. However, pursuant to Mitigation Measure NOISE-2a, described below, if displacement of more than 100 cubic yards of soil will take place within 25 feet of an occupied structure, a project-specific vibration impact analysis may be required by the Community Development Director or the Public Works Director, which would determine the specific vibration control mechanisms that would be incorporated into the project's construction bid documents, if necessary. In

Equipment	Approximate Ground Velocity in Decibels at 25 Feet (VdB)	Approximate Ground Velocity in Decibels at 50 Feet (VdB)
Pile Drive (impact)	104	98
Large Bulldozer	87	81
Loaded Trucks	86	80
Jackhammer	79	73
Small Bulldozer	58	52

TABLE 4.9-5 Typical Vibration Levels for Construction Equipment

Notes: Root mean square amplitude ground velocity in decibels (VdB) referenced to 1 micro-inch/second.

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

addition, Mitigation Measure NOISE-2b, described below, requires future development projects to protect historic structures from architectural/structural damage resulting from elevated groundborne noise and vibration levels.

The Proposed Plan provides the following goals, policies, and actions related to groundborne vibration and/or noise levels.

- Goal SN-7. Minimize the community's exposure to excessive noise.
- Policy SN-7.2 Noise Level Standards. Ensure that noise generated from all land uses and activities in Capitola complies with the noise level standards identified in Table SN-1 (*Table 4.9-2 above*). The City Council may allow exceptions to these noise level standards when mitigation of noise impacts is not technically or economically feasible or inconsistent with other City goals, policies, and regulations.
- Policy SN-7.3 Noise Control Ordinance. Maintain Capitola's Noise Ordinance (Municipal Code Chapter 9.12), which addresses the hours of operation of construction equipment, outdoor power tool use, leaf blowers, parking area vacuums, loud parties and activities, and vehicle noise.

Applicable Regulations:

None

Significance Before Mitigation: Significant.

NOISE-3 Future noise levels associated with implementation of the proposed Plan could contribute to an exceedance of the City's noise standards resulting in potential noise impacts to sensitive receptors.

Mobile Sources

Buildout of the proposed Plan would increase the traffic volume of the City's roadways. As such, it is anticipated that noise levels associated with a traffic increase on the City's roadways would increase. Existing and future noise levels have been calculated for various roadway segments within the City of Capitola. Table 4.9-3 outlines the City's existing roadway noise levels and Figure 4.9-2 illustrates the existing noise contours. Table 4.9-6 outlines the City's future roadway noise levels under proposed Plan buildout conditions and Figure 4.9-3 illustrates the proposed Plan's noise contours. The following is a summary of the calculated traffic noise levels associated with buildout under the proposed Plan:

- Highway 1 is the predominant traffic noise source in the city. Traffic noise along Highway 1 is greatest where it traverses the eastern portion of the city. The noise contours in this area extend slightly further from the centerline due to a greater number of vehicles on this highway segment and less terrain and development to attenuate the highway noise.
- None of the roadway segments modeled would generate noise levels above 70 dBA CNEL at 100 feet from centerline (with the exception of Highway 1).
- Four modeled roadway segments (along 41st Avenue) would generate noise levels between 65 dBA CNEL and 70 dBA CNEL at 100 feet from the centerline.
- Twelve modeled roadway segments (along 41st Avenue, Capitola Road, Cliff Drive, Bay Avenue, Monterey Avenue, and Park Avenue) would generate noise levels between 60 dBA CNEL and 65 dBA CNEL at 100 feet from the centerline.
- All other roadway segments would generate noise levels between 50 dBA CNEL and 60 dBA CNEL at 100 feet from the centerline.

It is noted that the computer noise model used to project the potential ambient noise levels with implementation of the proposed Plan does not consider the existing noise attenuating features such as sound walls, buildings, landscaping, or topography. As such, the roadway noise contours may not reflect true noise conditions. Intervening structures or other noise-attenuating obstacles between the roadway and sensitive receptors may reduce roadway noise levels at the receiving receptor. However, there would almost certainly be receptors that would experience roadway noise levels very similar to those indicated by the noise contours.

With implementation of the proposed Plan, some residential uses would experience noise levels that would exceed the City's Noise and Land Use Criteria Compatibility Criteria (refer to Table 4.9-2) due to the increase in roadway noise. However, adherence to the City's Noise Ordinance and the proposed Plan goals and policies related to long-term operational traffic noise would result in less than significant impacts. Specifically, projects would be required to comply with Policies SN-7.1, SN-7.2, and SN-7.4 related to incompatible land uses, adhering to the noise level thresholds in Table SN-1 (Table 4.9-2 above), and requiring acoustical analyses for projects proposing to located



TABLE 4.9-6FUTURE TRAFFIC NOISE LEVELS

			Distance from	Distance from Roadway Centerline to: (Feet)		
Roadway Segment	ADT	Feet from Roadway Centerline	60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
41 st Avenue						
Northbound Highway 1 ramps to Gross Road	35,397	67.2	611	193	61	
Gross Road to Clares Street	55,335	69.1	955	302	95	
Clares Street to Capitola Road	35,841	67.7	618	195	62	
Capitola Road to Jade Street	23,152	65.4	400	126	40	
Jade Street to City Limits	20,389	62.0	175	55	17	
Capitola Road						
City Limits to Clares Street	22,107	62.1	190	60	19	
Clares Street to 41st Avenue	26,700	62.9	229	72	23	
41 st Avenue to 42 nd Avenue	15,420	60.5	132	142	13	
46 th Avenue to 49 th Avenue	15,132	60.7	130	41	13	
49th Avenue to Wharf Road	10,406	59.1	89	28	9	
Clares Street						
40th Avenue to 41st Avenue	7,310	57.5	63	20	6	
41 st Avenue to 42 nd Avenue	4,988	55.8	43	14	4	
46th Ave to Wharf Road	3,621	54.5	31	10	3	
Wharf Road						
Clares Street to Capitola Road	2,560	53.0	22	7	2	
Capitola Road to Cliff Drive	12,407	59.8	107	34	11	
Cliff Drive						
47 th Avenue to Wharf Road	10,385	56.2	61	28	13	
Wharf Road to Capitola Ave	16,527	61.1	142	45	14	
Bay Avenue						
Northbound Highway 1 ramps to Hill Street	20,899	61.9	179	57	18	
Hill Street to Capitola Avenue	24,261	62.6	208	66	21	
Capitola Avenue to Monterey Avenue	10,506	59.1	90	28	9	

			Distance from Roadway Centerline to: (Feet)			
Roadway Segment	ADT	dBA @ 100 Feet from Roadway Centerline	60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Capitola Avenue						
Bay Avenue to Riverview Drive	7,261	57.5	62	20	6	
Riverview Drive to Stockton Avenue	8,028	57.9	69	22	7	
Stockton Avenue to Monterey Avenue	7,676	57.8	66	21	7	
Monterey Avenue						
Washburn Avenue to Bay Avenue	6,286	56.9	54	17	5	
Bay Avenue to Park Avenue	5,778	56.5	50	16	5	
Park Avenue to Capitola Avenue	12,709	60.0	109	35	11	
Park Avenue						
Northbound Highway 1 ramps to Kennedy Drive	28,894	62.1	154	72	33	
Kennedy Drive to Coronado Street	13,278	60.3	115	53	25	
Coronado Street to Monterey Avenue	12,310	61.4	152	48	15	

TABLE 4.9-6FUTURE TRAFFIC NOISE LEVELS

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Traffic noise modeling is based on traffic data provided by RBF Consulting, September 2013.

sensitive land uses near high-level noise areas. Further, future individual development projects would be reviewed for project-specific impacts during any required environmental review. If project-specific significant impacts are identified, specific mitigation measures can be placed on the project as conditions of approval.

Other Transportation Sources

Rail Noise

The Santa Cruz Branch rail line extends generally east to west through Capitola. This rail line is used for recreational, preservation, and future transportation uses throughout Santa Cruz County. Within Capitola there are two at-grade crossings and two trestles, including a major crossing over Soquel Creek. Noise from the railroad occurs very intermittently, and at present (October 2013) no trains are operating on the tracks. Future planned transportation uses within this right-of-way may include passenger rail service, bicycle and pedestrian facilities, and freight rail service. However, the proposed Plan does not include plans for expansion of freight services, or any other railroad services in the Plan Area. As such, noise impacts from the Santa Cruz Branch rail line are considered less than significant.

Stationary Sources

Commercial and industrial land uses are located near sensitive receptor areas. These uses currently generate occasional stationary noise impacts. Primary noise sources associated with these facilities are due to customer trips, delivery trucks, heavy machinery, air compressors, generators, and gas vents. Other significant stationary noise sources within the City include construction activity, street sweepers, and gas-powered leaf blowers.

Residential Uses

Residential uses make up the single largest land use category in Capitola, with 422 acres and approximately 52 percent of the total land in the city. Future development of residential units would create stationary noise typical of any new residential development. Noise that is typical of single-family residential areas includes children playing, pets, amplified music, pool and spa equipment operation, mechanical equipment, woodworking, car repair, and home repair. Noise from residential stationary sources would primarily occur during the "daytime" activity hours and result in a less-than-significant impact.

Commercial, Industrial, and Mixed-Use Development

Noise generally produced in commercial, mixed-use, and industrial districts includes that typically associated with slow moving truck deliveries, parking areas, landscape maintenance, and similar activities. These land uses are most heavily concentrated along the 41st Avenue corridor, as well as along Bay Avenue, Capitola Avenue, Kennedy Drive, and Capitola Village. The majority of mixed-use development is located in Capitola Village. The majority of the industrial uses are located along Kennedy Drive. Compliance with the goals and policies in the proposed Plan, as well as the City's Noise Ordinance, would reduce these impacts to less-than-significant levels.

Mechanical Equipment

Typical mechanical equipment associated with stationary sources includes heating, ventilation, and air conditioning units (HVAC). Actual activity levels would vary from season to season and day to day, and noise level reference data for the HVAC units are only available for high activity levels more characteristic of conditions during daytime hours on a warm summer day. Typical HVAC units would operate in unoccupied mode throughout the entire nighttime period, using a temperature threshold for cooling that is unlikely to be triggered during those hours. HVAC related noise levels would be substantially lower during the nighttime hours than during the loudest daytime hour. As discussed above, temporal variations in noise emissions from the HVAC units are expected to be complex and cannot be accurately distilled into a single diurnal pattern. It is reasonable to expect that, for at least a single daytime hour during warmer times of the year, all or nearly all of the HVAC units, thus adjacent sensitive uses may experience noise levels that exceed City Noise Standards. Compliance with proposed Plan's goals, policies, and actions, as well as adherence to the City's Noise Ordinance, would ensure these impacts are less than significant.

Parking Areas

Traffic associated with parking lots is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, an engine starting-up, and car passing by may be an annoyance to adjacent sensitive receptors. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Compliance with proposed Plan's goals, policies, and actions, as well as adherence to the City's Noise Ordinance, would ensure these impacts are less than significant.

Landscape Maintenance

Implementation of the proposed Plan could introduce new landscaping requiring periodic maintenance. Noise generated by maintenance equipment such as gasoline-powered lawnmowers, leaf-blowers, or hedge edgers could be a nuisance to nearby sensitive receptors. Maintenance activities would be conducted during daytime hours for brief periods of time and would increase ambient noise levels.

- Goal SN-7. Minimize the community's exposure to excessive noise.
- Policy SN-7.1 Noise Sensitive Land Uses. Minimize the exposure of noise sensitive land uses to unacceptable land uses as identified in Table SN-1 (*refer to Table 4.9-2 above*). Noise sensitive land uses shall be as determined by the Community Development Director, including land uses such as residential areas, lodging facilities, libraries, schools, parks, and medical care facilities.
- Policy SN-7.2 Noise Level Standards. Ensure that noise generated from all land uses and activities in Capitola complies with the noise level standards identified in Table SN-1 (*refer to Table 4.9-2 above*). The City Council may allow exceptions to these noise level standards when mitigation of noise impacts is not technically or economically feasible or inconsistent with other City goals, policies, and regulations.
- Policy SN-7.3 Noise Control Ordinance. Maintain Capitola's Noise Ordinance (Municipal Code Chapter 9.12), which addresses the hours of operation of construction equipment, outdoor power tool use, leaf blowers, parking area vacuums, loud parties and activities, and vehicle noise.
- Policy SN-7.4 Acoustical Analyses. Require an acoustical analysis for all proposed projects that would locate noise sensitive land uses where the projected ambient noise level is greater than the respective "normally acceptable" noise level, as shown in Table SN-1(*refer to Table 4.9-2 above*), and require mitigation of noise impacts that exceed the land use compatibility standards. An acoustical analysis required by the Noise Element shall:
 - Be performed according to a scope of work that has been approved by the Community Development Director;
 - Be the financial responsibility of the applicant for new construction and allow assistance for needed improvements for existing development;
 - Be prepared by a qualified person experienced in the fields of noise assessment and architectural acoustics;
 - Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions, predominant noise sources, and peak noise sources;
 - Estimate existing and projected cumulative (2035) noise levels in terms of CNEL, and compare those levels to the adopted policies of the Noise Element;

- Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element, giving preference to proper site planning and design over the construction of noise barriers or structural modifications to buildings. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance;
- Estimate noise exposure after the prescribed mitigation; and
- Describe a post-project monitoring program that could be used to evaluate the effectiveness of the proposed mitigation measures.
- Policy SN-7.5 Rail Service. Coordinate with the Santa Cruz County Regional Transportation Commission to
 ensure that any future rail service operating on rail lines in Capitola minimizes and/or mitigates noise impacts
 to neighboring land uses.
- Action SN-7.1 Noise Ordinance Effectiveness. Review, revise, and maintain Capitola's Noise Ordinance (Municipal Code Chapter 9.12) to ensure that it effectively minimizes the community's exposure to excessive noise.

Applicable Regulations:

- Office of Planning and Research, California, General Plan Guidelines, October 2003
- City of Capitola Municipal Code, Chapter 19.12 Noises

Buildout of the proposed Plan would induce elevated traffic noise levels along City roadways, and create increased ambient noise levels from land uses and other activities within the Plan area. These noise levels have the potential to violate the City's established noise standards and Noise Ordinance, and could possibly expose sensitive receptors to such noise levels. However, compliance with the proposed Plan goals, policies, and actions, as well as compliance with the City's Noise Ordinance, would ensure these impacts are *less than significant*.

Significance Before Mitigation: Less than significant.

4.9.4 CUMULATIVE IMPACT DISCUSSION

NOISE-4 The Plan, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to noise.

Cumulative Short-Term Construction Noise

The City of Capitola is primarily built out, and very few vacant parcels are located throughout the city that would experience construction activity. However, it is anticipated that the city would experience construction activity associated with redevelopment of existing developed sites as well as new construction on undeveloped sites. Because the city is largely built out, it is unlikely the city would experience intensive construction activity with implementation of the proposed Plan. Short-term construction noise is a localized activity and would affect only

land uses that are immediately adjacent to a specific project site. Each construction project would have to comply with the local noise ordinance, as well as mitigation measures that may be prescribed pursuant to CEQA provisions that require significant impacts to be reduced to the extent feasible. In addition, it is unlikely that all construction projects would occur simultaneously within the city. Thus, a *less-than-significant* impact would occur.

Cumulative Long-Term Operational Noise

Cumulative impacts are based upon assumptions made within Appendix C, Noise Monitoring and Modeling Data, and Section 4.13, Transportation and Traffic, to address noise impacts within the City of Capitola. Cumulative stationary noise sources would generally be less than significant with the implementation of the policies outlined in the proposed Plan. However, as traffic noise tends to dominate the noise environment within the City of Capitola, the analysis below considers whether the increase in traffic noise would be noticeable and significant per the criteria.

Mobile Sources

Table 4.9-7 compares the "Existing" scenario to the "General Plan Buildout" scenario and outlines the anticipated noise level changes adjacent to specific roadways in the City as a direct result of implementation of the proposed Plan. The change in traffic patterns is due to the redistribution of traffic on City streets due to the change in land uses based upon the General Plan Land Use Diagram. It should be noted that as ambient noise levels increase, a smaller degree of change in noise levels is required to elicit significant annoyance. To be considered a significant impact, *existing noise levels below 60 dBA would require an increase of 5 dBA or more to be significant, while existing noise levels that are 60 dBA or above would require an increase of 3 dBA or more to be significant. As indicated in Table 4.9-7, buildout of the proposed Plan would not generate a significant noise level increase along the roadways within the City. Compliance with proposed Plan's goals, policies, and actions, as well as adherence to the City's Noise Ordinance, and recommended mitigation measures would reduce the generated audible noise levels to a <i>less-than-significant* level.

Applicable Regulations:

- Office of Planning and Research, California, General Plan Guidelines, October 2003
- City of Capitola Municipal Code, Chapter 19.12 Noises

Buildout of the proposed Plan would not generate a significant noise level increase along the roadways within the City. Compliance and/or adherence to the City's Noise Ordinance, goals, policies, and actions in the proposed Plan, and recommended mitigation measures would reduce the generated audible noise levels to a less than significant level. Impacts would be *less than significant* in this regard.

Significance Before Mitigation: Less than significant.

	Existing		Bu	ildout	-	
Roadway Segment	ADT	dBA @ 100 Feet from Roadway Centerline	ADT	dBA @ 100 Feet from Roadway Centerline	Difference in dBA @ 100 feet from Roadwayª	Potentially Significant Impact? ^b
41 st Avenue						
Northbound Highway 1 ramps to Gross Road	30,162	66.5	35,397	67.2	0.7	No
Gross Road to Clares Street	43,957	68.1	55,335	69.1	1.0	No
Clares Street to Capitola Road	25,284	65.6	35,841	67.7	2.1	No
Capitola Road to Jade Street	18,977	64.5	23,152	65.4	0.9	No
Jade Street to City Limits	18,977	61.7	20,389	62.0	0.3	No
Capitola Road						
City Limits to Clares Street	18,009	61.2	22,107	62.1	0.9	No
Clares Street to 41st Avenue	19,022	61.4	26,700	62.9	1.5	No
41 st Avenue to 42 nd Avenue	13,036	59.7	15,420	60.5	0.8	No
46th Avenue to 49th Avenue	12,771	60.0	15,132	60.7	0.7	No
49th Avenue to Wharf Road	8,334	58.1	10,406	59.1	1.0	No
Clares Street						
40 th Avenue to 41 st Avenue	6,440	56.9	7,310	57.5	0.6	No
41 st Avenue to 42 nd Avenue	4,640	55.5	4,988	55.8	0.3	No
46 th Avenue to Wharf Road	3,400	54.2	3,621	54.5	0.3	No
Wharf Road						
Clares Street to Capitola Road	2,048	52.0	2,560	53.0	1.0	No
Capitola Road to Cliff Drive	10,129	58.9	12,407	59.8	0.9	No
Cliff Drive						
47th Avenue to Wharf Road	8,923	55.5	10,385	56.2	1.1	No
Wharf Road to Capitola Ave	13,179	60.1	16,527	61.1	1.0	No
Bay Avenue						
Northbound Highway 1 ramps to Hill Street	19,990	61.7	20,899	61.9	0.2	No
Hill Street to Capitola Avenue	18,922	61.5	24,261	62.6	1.1	No
Capitola Avenue to Monterey Avenue	8,506	58.2	10,506	59.1	0.9	No

TABLE 4.9-7 CUMULATIVE EXTERIOR NOISE ADJACENT TO NEARBY ROADWAYS

-	Existing		Bu	ildout	-	
Roadway Segment	ADT	dBA @ 100 Feet from Roadway Centerline	ADT	dBA @ 100 Feet from Roadway Centerline	Difference in dBA @ 100 feet from Roadwayª	Potentially Significant Impact? ^b
Capitola Avenue						
Bay Avenue to Riverview Drive	5,750	56.5	7,261	57.5	1.0	No
Riverview Drive to Stockton Avenue	6,728	57.2	8,028	57.9	0.7	No
Stockton Avenue to Monterey Avenue	6,562	57.1	7,676	57.8	0.7	No
Monterey Avenue						
Washburn Avenue to Bay Avenue	4,438	55.4	6,286	56.9	1.5	No
Bay Avenue to Park Avenue	4,015	54.9	5,778	56.5	1.6	No
Park Avenue to Capitola Avenue	9,758	58.8	12,709	60.0	1.2	No
Park Avenue						
Northbound Highway 1 ramps to Kennedy Drive	21,715	60.9	28,894	62.1	1.2	No
Kennedy Drive to Coronado Street	9,607	58.9	13,278	60.3	1.4	No
Coronado Street to Monterey	8,648	59.9	12,310	61.4	1.5	No

TABLE 4.9-7 CUMULATIVE EXTERIOR NOISE ADJACENT TO NEARBY ROADWAYS

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Avenue

a. Roadway noise levels and contours were calculated using the FHWA RD-77-108 model. Freeway contours were calculated using TNM 2.5. TNM 2.5 produces graphical contours and does not report distances from the centerline to each contour. Therefore, numerical values for freeway contours are not provided above.

b. Existing noise levels below 60 dBA would require an increase of 5 dBA or more to be significant, while existing noise levels that are 60 dBA or above would require an increase of 3 dBA or more to be significant.

Source: Traffic noise modeling is based on traffic data provided by RBF Consulting, September 2013.

4.9.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

NOISE-2 Construction-related activities resulting from implementation of the propose Plan could generate or expose persons or structures to excessive ground-borne vibration.

Mitigation Measure NOISE-2a: Project applicants shall ensure by contract specifications that construction staging areas along with the operation of earthmoving equipment within the City would be located as far away from vibration and noise sensitive sites as possible. For projects that involve the displacement of more than 100 cubic yards of soil and is located within 25 feet of an occupied structure, the Community Development Director or the Public Works Director may require at their discretion that a project specific vibration impact analysis be conducted to determine the specific vibration control mechanisms that would be incorporated into

the project's construction bid documents, if necessary. Contract specifications shall be included in construction documents, which shall be reviewed by the City prior to issuance of a grading permit.

Mitigation Measure NOISE-2b: The City shall require future developments to implement the following measures to reduce the potential for human annoyance and architectural/structural damage resulting from elevated groundborne noise and vibration levels.

- Pile driving within a 50-foot radius of historic structures (as determined by the City) shall utilize alternative installation methods where possible (e.g., pile cushioning, jetting, predrilling, cast-in-place systems, resonance-free vibratory pile drivers).
- The pre-existing condition of all designated historic buildings (as determined by the City) within a 50-foot radius of proposed construction activities shall be evaluated during a preconstruction survey, if deemed necessary at the discretion of the Community Development Director or the Public Works Director. The preconstruction survey shall document conditions (photographically and in writing) that exist before construction begins for use in evaluating damage caused by construction activities. All damage shall be repaired back to its preexisting condition.
- Vibration monitoring shall be conducted prior to and during pile driving operations occurring within 100 feet of historic structures (as determined by the City). Every attempt shall be made to limit construction-generated vibration levels during pile driving and impact activities in the vicinity of the historic structures.

Significance After Mitigation: Less than significant.

4.10 POPULATION AND HOUSING

This chapter describes the population, housing, and employment characteristics of the Plan Area, and potential impacts of the proposed Plan.

4.10.1 ENVIRONMENTAL SETTING

4.10.1.1 REGULATORY FRAMEWORK

Regional Regulations

Association of Monterey Bay Area Governments Projections

The Association of Monterey Bay Area Governments (AMBAG) serves as both a federally designated Metropolitan Planning Organization (MPO) and Council of Government (COG). Among its many duties, AMBAG prepares regional housing, population, and employment forecasts that are used in a variety or regional plans, including local General Plans. AMBAG produces growth forecasts on 4-year cycles so that other public agencies can use the forecast to make project funding and regulatory decisions.

The regional growth forecast projects the region's population, housing, and employment to the year 2035. The growth forecast is used to support regional planning efforts such as the Regional Travel Demand Model and the Metropolitan Transportation Plan as well as local planning such as the development of General Plans and project review. However, use of the forecast by local land-use planning agencies is elective.

Developing population, housing, and employment forecast estimates for the Monterey Bay region consists of two distinct stages. The first stage is the identification of regional and county level forecast figures through the use of widely accepted forecasting methodologies. The second stage is the disaggregation of county-level forecast numbers to the jurisdictional level and subsequently to the Traffic Analysis Zones (TAZs), using data gathered from jurisdictions.

Given the new Census data, Senate Bill (SB) 375 requirements, and the lasting effects of the recession, AMBAG has undertaken an update to the 2008 forecast. This process included the use of a methodology known as Implicit Shift and additional data gathering used to supplement the new methodology. As the current forecast is for planning purposes only, adjustments may be made as more data on employment becomes available. The Classical Shift Share methodology initially proposed for the disaggregation of the regional employment figures was used at the county level, but staff was not able to obtain the necessary data from the Employment Development Department to utilize this method at the sub-county level. Staff proposes to revisit the employment disaggregation methodology over the next few months and is working to obtain the necessary Employment Development Department data.

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By accepting the regional growth forecast as preliminary, the Board of Directors leaves AMBAG staff the flexibility to make adjustments to employment figures in coordination with jurisdiction staff. Proposed changes to the growth forecast would be brought back to the AMBAG Board of Directors for approval. Staff proposes adoption of the final regional growth forecast at the same time as the AMBAG Board adopts the MTP in June 2014.¹

Regional Housing Needs Allocation

Housing element law requires local jurisdictions to allow the construction of a share of the region's projected housing needs. This share is called the Regional Housing Needs Allocation (RHNA). The specific RHNA number for a jurisdiction is important because State law mandates that each jurisdiction provide sufficient land to accommodate a variety of housing opportunities for all economic segments of the community to meet or exceed this number of housing units. AMBAG, as the regional planning agency, calculates the RHNA for individual jurisdictions within Monterey, San Benito, and Santa Cruz Counties, including the City of Capitola.

Envisioning the Monterey Bay Area

Envisioning the Monterey Bay Area is an advisory fact finding document produced by the AMBAG that provides a blueprint for the future, describing how the communities of the Monterey Bay area might grow in a sustainable fashion through 2035. The document focuses on meeting the growth challenges of the coming years through expanded housing and transportation choices for residents of the Monterey Bay Area. The blueprint provides the basis for SB 375's Sustainable Communities Strategy which will be used to inform regional transportation plans and will be a platform for future regional housing needs and housing elements.

Local Regulations

Capitola Housing Element

The Housing Element describes how Capitola plans to meet the projected housing needs of all economic segments of the community and the City's fair share allocation of regional housing needs. Additionally, the Housing Element contains a description of Capitola's population trends, housing characteristics, employment trends, an analysis of the city's housing needs in relation to RHNA, an overview of sites available for housing, an analysis of potential constraints to housing development, evaluation of the previous housing element, and housing goals and policies.

¹ Association of Monterey Bay Area Governments (AMBAG), 2013. AMBAG Preliminary 2012 Regional Growth Forecast, pages 97 to 98.

Capitola Municipal Code

Affordable (Inclusionary) Housing

Established in 2004 with the Inclusionary Housing Ordinance and codified in chapter 18.02 of the Municipal code, the City's affordable housing program seeks to provide safe and stable housing for households at all income levels. Under this code each new housing development project is required to contribute to the City's affordable housing stock. Housing development projects creating seven or more for sale housing units, residential parcels, mobile home parcels, or converted condominium units shall be required to reserve and restrict 15 percent of the housing units, residential parcels or converted condominium units for sale to moderate, low or very low income households. Smaller housing development projects are required to pay affordable housing in-lieu fees to the City's housing trust fund.

4.10.1.2 EXISTING CONDITIONS

This section describes existing conditions related to population, housing, and employment in Capitola. The US Census Bureau's 2010 Census data represents the most up-to-date demographic profile available for Capitola; however, regional planning initiatives, including RHNA, are based on AMBAG's Projections. Therefore, both these sets of population, housing, and employment data, which may differ to some extent, are described below.

Population

According to the US Census Bureau, Capitola had a population of 9,918 in 2010. This represents a slight decrease from the 2000 census when Capitola had a population of 10,033. In 2010, approximately 74 percent of the population was ages 25 years and over, while the median age was a relatively high 41.9.² Capitola's average household size was 2.11 persons per household in 2010, compared to 2.66 persons per household for Santa Cruz County as a whole in the same year. In 2010, 49.4 percent of households in Capitola were family households, while 50.6 were non-family households, including 37.5 percent of households composed of individuals living alone. As shown in Table 4.10-1, AMBAG's Draft- Semi- Regional Growth Forecast (2012) estimates that Capitola's population to grow to a total of 10,088 by 2035.³

² U.S. Census Bureau, 2010 Census, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk, accessed on July, 23, 2013.

³ Association of Monterey Bay Area Governments, 2013. AMBAG Preliminary 2012 Regional Growth Forecast.

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era neeraa						
				_	Change from	n 2010 -2035
City of Capitola	2010	2020	2025	2035	Number	Percent
Population	9,918	9,119	9,427	10,088	170	1.7%
Housing Units	5,534	5,534	5,534	5,553	19	0.34%
Employment	7,215	7,690	7,919	8,404	1,189	16.5%
Santa Cruz County						
Population	262,382	279,381	287,512	308,582	46,200	17.6%
Housing Units	104,476	111,039	113,168	120,196	15,720	15%
Employment	110,200	119,116	122,664	130,178	19,978	18.1%

TABLE 4.10-1AMBAG 2012 POPULATION, HOUSING UNITS, AND EMPLOYMENT PROJECTIONS FOR THE CITY OF
CAPITOLA AND SANTA CRUZ COUNTY

Source: Association of Monterey Bay Area Governments, February 13, 2013. AMBAG Preliminary 2012 Regional Growth Forecast. Pages 98-99.

Housing

2010 Census data indicate that there were 5,534 housing units in Capitola in 2010 with an occupancy rate of 83.6 percent.⁴ The predominant type of housing in Capitola is multi-family homes, which accounts for approximately 45 percent of all housing, as shown in Table 4.10-2.⁵ Comparatively, single-family housing, which accounts for 40 percent of all housing, represents a slightly smaller share of total housing in Capitola.⁶ Housing needs change over time and adapt to shifting demographics, real estate prices, and the other factors which influence the economic cycle. According to the 2007-2014 Housing Element, Capitola has a relatively low percentage of children and high percentage of single adults and elderly; demographic segments more likely to be in single person households. This trend is expected to continue through 2035. New housing development is expected to be mostly medium and higher density either attached or detached. The Housing Element also noted that about 6 percent of the city's households are defined as overcrowded, meaning that there is greater than 1.1 persons per room.⁷ While 6 percent is minimal, this is caused by the combined effect of low earnings and high housing cost in the community and reflects the inability of some households to buy or rent housing that provides sufficient living space for their needs. Approximately 23 percent of the population of Capitola is considered to have a low or very low income and a proportional number of housing units are needed to accommodate this group.⁸

⁴ U.S. Census Bureau, 2010 Census, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk, accessed on July, 23, 2013.

⁵ The total percentage of multi-family housing, which combines the percentages for two to four and five-plus units.

⁶ The total percentage of single-family housing, which combines the percentages for single family detached and attached units.

⁷ City of Capitola, *Capitola Housing Element 2007-2014*.

⁸ City of Capitola, Capitola Housing Element 2007-2014.

Housing Type	Number	Percent of Total
Single-Family Detached	1,642	29.6%
Single-Family Attached	597	10.8%
Multi-Family (Two to Four)	1,393	25.1%
Multi-Family (Five Plus)	1,118	20.2%
Mobile Homes	793	14.3%
Occupied	4,634	83.6%
Total	5,534	100.0%

TABLE 4.10-2 HOUSING STOCK IN CAPITOLA

Source: State of California, Department of Finance, 2012, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark.

Employment

AMBAG estimates that in 2010 there were roughly 7,215 jobs and 5,534 housing units in Capitola, which is equivalent to a jobs-housing ratio of 1.3.⁹ Comparatively, estimates for 2010 show that Capitola had a lower jobs-housing ratio than the City of Santa Cruz (1.43), the City of Watsonville (1.59), and the City of Scotts Valley (1.85), and a yet a higher jobs-housing ratio than the average for the AMBAG region as a whole (1.2).

Capitola is primarily a bedroom community for persons employed outside the City yet also imports workers from outside the City, suggesting a mismatch between local jobs and residents skills/occupations. Data from the United States Census Longitudinal Employer-Household Dynamics dataset shows that 91.7 percent of Capitola's 3,162 working residents were employed outside the City in 2009. Additionally, 95 percent of the dataset's estimated 6,169 persons employed in Capitola reside outside the City.¹⁰

According to the US Census, within Capitola city limits there is a concentration of Educational Services (25 percent) retail (14 percent) jobs, but also a strong arts entertainment, and recreation, and accommodation food services trade (12 percent), manufacturing (10 percent), and professional, scientific, and management, and administrative and waste management services (9 percent) job sectors.¹¹ Other job sectors in Capitola include finance and insurance (6 percent), construction (4 percent), and information (4 percent). The top employers in Capitola include Subaru, Toyota, Kia of Santa Cruz, Macy's, Gayle's Bakery and Rosticceria, Sears, Whole Foods Market, Shadowbrook Restaurant, Trader Joe's, Nob Hill, Kohls, and Pacific Coast Manor.¹²

⁹ Association of Monterey Bay Area Governments, 2013. AMBAG Preliminary 2012 Regional Growth Forecast.

¹⁰ Strategic Economics, 2011. General Plan Update Existing Conditions White Paper #2 Economic and Market Conditions. Prepared for the City of Capitola,

¹¹ U.S. Census Bureau, American Community Survey 2007-2011, *Economic Characteristics*, accessed on July 30, 2013.

¹² Capitola Finance Department, 2012. Comprehensive Annual Financial Report.

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4.10.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the proposed Plan would have a significant impact with regard to population, housing, and employment if it would:

- 1. Induce substantial unexpected population growth, or growth for which inadequate planning has occurred, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- 2. Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.
- 3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

4.10.3 ENVIRONMENTAL IMPACT DISCUSSION

POP-1 The Plan would not induce substantial unexpected population growth, or growth for which inadequate planning has occurred, either directly or indirectly.

The proposed Plan would result in a significant impact related to population growth if it would lead to substantial unplanned growth, either directly or indirectly. The Plan does not specifically propose any new development or redevelopment, and therefore would not result in direct growth; however, implementation of the proposed Plan would facilitate some growth in the Plan Area through 2035 and as such would have indirect effects related to population growth. Overall, the minor increases in housing units and residents are adequately planned for and will be guided by the policy framework in the proposed plan.

Local

The following Capitola General Plan policies support the assertion that the anticipated growth is not unplanned.

- Policy LU-1.3 Compatible Development. Ensure that all new development is compatible with neighboring land uses and development.
- Policy LU-1.6 Balanced Community. Ensure that land use decisions balance the needs, interests, and concerns
 of Capitola's residents, visitors, and workers
- Policy LU-3.3 Infill Development. Support well-designed infill development on vacant and underutilized sites that enhances Capitola's quality of life.
- Policy LU-5.1 Neighborhood Characteristics. Require new residential development to strengthen and enhance the unique qualities of the neighborhood in which it is located. Residential neighborhood boundaries are identified in Figure LU-1.

Policy LU- 5.2 Development Impacts. Ensure that new commercial and residential development, both within
and adjacent to neighborhoods, minimizes impacts to residential neighborhoods through incorporation of
design standards and mitigation measures.

Regional

As described in Chapter 3, Project Description, of this draft EIR, buildout of the proposed plan could result in as many as 10,198 residents, 5,614 housing units, and 7,370 jobs by 2035. This represents approximately 60 more housing units and 110 additional residents over AMBAG projections at buildout in 2035 or an additional 1.1 percent over AMBAG projections. Particularly considering that this growth will be incremental, meaning that it will take place gradually over the 20-year time frame of the Plan, this amount of growth is not a substantial increase.

Furthermore, the proposed update, in accordance with regional planning efforts including the AMBAG *Envisioning The Monterey Bay Area*, a blueprint for Sustainable Growth and Smart Infrastructure, allows for an adequate variety of different housing types including multifamily units and infill development which will help to achieve regional planning goals and therefore the additional growth is not unplanned. The *Envisioning the Monterey Bay Area* plan shows priority areas in the city limits of Capitola and therefore even though the amount of growth anticipated is not substantial, some additional higher density growth is in line with regional planning efforts and a *less-thansignificant* impact will result.

Policy LU-3.7 Regional Outlook. Support land uses in Capitola that contribute to a more environmentally sustainable regional development pattern in Santa Cruz and the Monterey Bay area. Consider the benefits and impacts of new development in Capitola to neighboring jurisdictions and the region as a whole.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

POP-2 The Plan would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.

The proposed Plan would have a significant environmental impact if it would directly displace a substantial number of existing housing units, thereby requiring construction of replacement housing elsewhere. As noted above, implementation of the proposed Plan would result in a net increase in housing units. Additionally, housing built over the time frame of the plan is anticipated to take place on vacant and underutilized parcels so no demolition of existing housing is anticipated and a *less-than-significant* impact will result. The following policy contained in the proposed Plan supports that claim.

 Policy LU-3.3 Infill Development. Support well-designed infill development on vacant and underutilized sites that enhances Capitola's quality of life.

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Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

POP-3 The proposed Plan would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The proposed Plan would have a significant environmental impact if it would directly or indirectly result in the displacement of a substantial number of people, thereby requiring construction of replacement facilities and services elsewhere. Such displacement could result if low income or special needs populations were displaced as a result of development under the Plan, requiring the construction of replacement housing to accommodate them elsewhere. To accommodate all segments of the community, with consideration for the changing demographics of the community, the proposed plan designates residential uses at various levels of affordability including mobile home parks and a considerable amount of multi-family housing. Furthermore the construction of residential units in the Plan Area would continue to be subject to chapter 18.02 of the City's municipal code which requires developers of residential units to either set aside 15 percent of units for sale to moderate, low or very low income households for projects entailing seven or more units, or pay affordable housing in-lieu fees for projects entailing less than seven units. As such, impacts associated with the displacement of people would be *less than significant*.

The following policies contained in the proposed Plan support this claim.

Policy LU-1.6 Balanced Community. Ensure that land use decisions balance the needs, interests, and concerns
of Capitola's residents, visitors, and workers

The following policies contained in the Capitola Housing Element 2007- 2014 support the assertion that impacts associated with the displacement of people are less than significant.

- Policy 1.1 Provide adequate sites and supporting infrastructure to accommodate present and future housing needs of Capitola residents.
- Policy 1.4 Periodically review development regulations, permit processes, and fees and their effect on development to ensure that such requirements facilitate housing production and rehabilitation.
- Policy 1.5 Ensure adequate sites for new housing development to meet the needs of the community.
- Policy 2.5 Promote the development of affordable housing on opportunity sites.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

4.10.4 CUMULATIVE IMPACT DISCUSSION

POP-4 The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to population and housing.

This section analyzes potential impacts to population and housing that could occur from a combination of the proposed Plan and other past, present, and reasonably foreseeable growth in the surrounding area. For the purposes of this chapter the area of cumulative effect includes the area within the city limits as well as the area within the sphere of influence (SOI). As discussed in Chapter 3, Project Description, the SOI is a boundary that typically shows areas that jurisdictions may annex in the future, and for which urban services would be provided. In Capitola's case, there are no immediate plans to annex lands within the SOI. These areas, such as Pleasure Point and Soquel, have established identities separate from Capitola within unincorporated Santa Cruz County. For these reasons, the proposed Plan's scope being limited the area within the city limits, and the Regional Planning framework in place the proposed Plan is anticipated to have an unsubstantial impact on the communities contained in the SOI.

As described above, implementation of the General Plan update is consistent with regional Planning efforts and would not induce substantial unplanned growth.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

4.10.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan update would not result in any significant Plan-level or cumulative impacts to population and housing and therefore no mitigation measures are required.

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4.11 PUBLIC SERVICES

This chapter describes public serves provided in Capitola and evaluates the potential impacts that could result from buildout of the proposed Plan on public services. Law enforcement, fire protection and emergency medical response, schools, and libraries are each addressed in a separate section of this chapter. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of Plan-specific and cumulative impacts.

4.11.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

4.11.1.1 ENVIRONMENTAL SETTING

This section describes existing conditions related to fire and emergency medical services and the potential impacts that could result from buildout of the proposed Plan.

Regulatory Framework

State Regulations

California Building Code

The California Building Code (CBC) provides a minimum standard for building design through the 2010 California Building Code, which is located in Part 2 of Title 24 of the California Code of Regulations. The 2010 California Building Code is based on the 1997 Uniform Building Code, but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Most construction activity including commercial and residential buildings are plan-checked by local city and county building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

The California Fire Code incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official Fire Code for the State and all political subdivisions. It is located in Part 9 of Title 24 of the California Code of Regulations. The California Fire Code is revised and published every 3 years by the California Building Standards Commission.

Assembly Bill X1 29 - Fire Protection Fee

Assembly Bill X 129 (ABX 129) establishes an annual Fire Prevention Fee to help pay for fire prevention services within State Responsibility Area's (SRA).¹ Under ABX 129, owners of habitable structures, defined as a "building that contains one or more dwelling units or that can be occupied for residential use"² located within a State Responsibility Area, which is an area that includes state and privately-owned forest, watershed, and rangeland where the State of California has primary financial responsibility for the prevention and suppression of wildfires. As such, Santa Cruz County works in cooperation with the California Department of Forestry and Fire Protection (CAL FIRE).

Local and Regional Regulations

City of Capitola Municipal Code

Chapter 15.04, Uniform Construction and Fire Codes, of the City of Capitola Municipal Code, establishes the framework for building and fire protection by adopting the following model codes or designated portions thereof, related to fire protection:³

- 2009 International Building Code (IBC) and Appendix Chapters G, I, and K, published by the International Code Council.
- 2008 National Electric Code (NEC) published by the National Fire Protection Association.
- 2009 International Fire Code (IFC) published by the International Code Council.

As such, the codes listed above should be referred to for applicability to proposed projects. Additionally, Chapter 17.63, Architectural and Site Review, sets forth requirements for the architectural and site review of certain projects. Section 17.63.090 specifies the considerations of the review process, of which consideration of safety is applicable. A committee consisting of six members performs the review and includes a distribution of one of each of the following disciplines; architect; landscape architect; building official; community development director or designated planning staff; public works director; and historian.

Central Fire Protection District Master Plan/Strategic Plan

Revised on March 24, 2007, the Central Fire District Master Plan (CFPDMP) sets forth the visions, and policies and regulations of the Central Fire Protection District, formed in 1987 from the consolidation of the Capitola, Live Oak, and Soquel Fire Districts.⁴ As such, the CFPDMP contains information such as risk assessment, community profiles related to fire hazards and danger, background of the Central Fire Protection District (CFPD), and an overview of emergency procedures and operations within the boundaries of the CFPD. Additionally, the

¹ California Fire Prevention Fee, http://www.firepreventionfee.org/sra_faqs.php, accessed August 5, 2013.

² California Fire Prevention Fee, http://www.firepreventionfee.org/sra_faqs.php, accessed August 5, 2013.

³ City of Capitola, Municipal Code, Chapter 15.04 Uniform Construction and Fire Codes, http://www.codepublishing.com/ ca/capitola/, accessed August 5, 2013. Note: only codes related to fire protection are listed; other standard building codes are included in the overall list, although omitted here.

⁴ Central Fire Protection District, *Master Plan/Strategic Plan 2004/2009*, page 12.

CFPDMP identifies present and future impacts on the district's ability to adequately provide protection, and further identifies recommendations to accommodate projected growth.

Central Fire Protection District of Santa Cruz County - District Regulations

Fire Prevention Officers Section 005 (FPO-005) for the Central Fire Protection District establish requirements in addition to the latest edition of the National Fire Protection Association (NFPA) 13D fire sprinkler design standards for single- and multi-family residential dwellings. As such, FPO-005 requires plans to be submitted and approved prior to installation of fire sprinkler systems. Plans must be designed and hydraulically calculated by a licensed engineer, Fire Protection Engineer, licensed C-16 Contractor, or by an owner-builder of an owner-occupied single-family dwelling. Additional requirements regulate testing for water supply and pressure, installation requirements and guidelines, required system components, and system design standards.

County of Santa Cruz General Plan

The County of Santa Cruz General Plan (Santa Cruz General Plan) sets forth guidelines and regulations to guide development in Santa Cruz County, including the unincorporated areas of Live Oak and Soquel. Although the Santa Cruz General Plan does not have jurisdiction within the Capitola city limits, for purposes of this Draft EIR, Live Oak and Soquel Village are included in the analysis as a result of being within the greater service area of the CFPD, along with Capitola.

Chapter 6, Public Safety and Noise, of the Santa Cruz General Plan contain policies to minimize or reduce risks of fire hazards within the CFPD service area and include, Access Standards; Conditions for Project Approval; Fire Protection Standards for Land Divisions Outside the Urban Services Line; and various other policies aimed at protecting Santa Cruz County from fire hazards.

Existing Conditions

Resulting from the 1987 consolidation of the Live Oak, Soquel, and Capitola Fire Protection Districts, the CFPD has since provided fire emergency services to approximately 28 square miles of land, as shown in Figure 4.11-1.⁵ The CFPD services range from typical fire prevention and firefighting, to water rescue, urban search and rescue, hazardous material clean up, and a range of paramedic (Advanced Life Support) services.⁶ Approximately 70 percent of the northern edge of the District is forest and wilderness area where California State Responsibility Areas (SRA) overlap with county wild land fire protection areas.⁷ In 2011, the District responded to 4,658 service requests, which included 3,220 emergency medical incidents, and 200 fires, averaging a response time from one of four stations of four minutes and 21 seconds, from one of four fire stations. The District's Fire Prevention Bureau

⁵ Central Fire Protection District, *Strategic Service Plan 2015*.

⁶ Central Fire Protection District, Master Plan/Strategic Plan 2004/2009, Revised 03-24-2007, page. 18.

⁷ Central Fire Protection District, Master Plan/Strategic Plan 2004/2009, Revised 03-24-2007, page. 20.

PUBLIC SERVICES AND RECREATION



Source: Central Fire Protection District of Santa Cruz County.
is responsible for the more than 1,400 annual business inspections, as well as coordinate the community Public Education Program and Community Emergency Response Team training.⁸

The four stations and one headquarter office, which are listed below, include two in Santa Cruz, one in Soquel, and one in Capitola and serve a population of more than 55,000 residents, with seasonal fluxuation during summer tourist season.⁹ According to the CFPD Master Plan (Master Plan), the CFPD has a full-time staff of 54 distributed throughout the fire stations, and one headquarter office. Each fire station has a minimum staff of three, including one captain, one firefighter/paramedic, and one firefighter available 24 hours per day, seven days per week.¹⁰ Additionally, available staff at the headquarters in Santa Cruz include the fire chief; assistant chief; administrative assistant; division chief training/safety officer; division chief/fire marshal; fire inspector; captain specialist; battalion chief; secretaries; and part-time personnel. Helping to fund the CFPD, an 0.18 cent per tax dollar assessment of the annual 1 percent property tax is diverted to help cover fire protection costs.¹¹ In the last 3 years, the CFPD has been able to reduce operating costs by over \$1.5 million dollars, and has an annual operating budget of approximately \$13 million dollars.¹² There are no existing plans to expand the CFPD facilities.

Station Locations:

- Headquarters/Administration Office 930 17th Avenue, Santa Cruz, California 95062
- CFPD Station 1 Live Oak, 930 17th Avenue, Santa Cruz, California 95062
- CFPD Station 2 Santa Cruz, 3445 Thurber Lane, Santa Cruz, California 95065
- CFPD Station 3 Soquel, 4747 Soquel Drive, Soquel, California 95073
- CFPD Station 4 Capitola, 405 Capitola Avenue, Capitola, California 95010

4.11.1.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to fire protection and emergency services if:

a. In order to maintain acceptable service ratios, response times, or other performance objectives for fire services, the Plan would result in the provision of or need for new physically altered fire protection facilities, the construction or operation of which could cause significant environmental impacts.

⁸ Central Fire Protection District, *Strategic Service Plan 2015*.

⁹ Central Fire Protection District, http://www.centralfpd.com/AboutCentralFire/tabid/87/Default.aspx, accessed August 5, 2013.

¹⁰ Central Fire Protection District, Master Plan/Strategic Plan 2004/2009, Revised 03-24-2007, page. 39.

¹¹ Central Fire Protection District, Strategic Service Plan 2015.

¹² Central Fire Protection District, http://www.centralfpd.com/AboutCentralFire/tabid/87/Default.aspx, accessed August 5, 2013.

4.11.1.3 ENVIRONMENTAL IMPACT DISCUSSION

SVCS-1 The proposed Plan would not result in the provision of or need for new or physically altered protection facilities, the construction or operation of which could cause significant environmental impacts.

Buildout of the proposed Plan, which is expected to result in an increase of 80 units, 280 residents, and 1,200 jobs through 2035, would create an increased demand for fire, rescue and emergency medical services in the CFPD service area, caused by the potential of more service calls from a projected increase in residents and employees, as well as the addition of residential structures. However, the projected increase in service population would come incrementally over a period of 20 years, as a result of future development under the proposed Plan. Under CEQA, a significant impact would result if this increased demand would require construction of new facilities or the expansion of existing facilities in order to ensure the CFPD can adequately serve the Plan area.

The CFPD could not report with absolute certainty, in the absence of a complete response time study, on the potential impacts taking into consideration the increase in population, housing units, and additional jobs because the CFPD serves an additional 50,000 residents in Live Oak and Soquel in addition to the City of Capitola.¹³ However, measures have been taken to reduce response times by identifying potential fire risks by location, level of risk, resources available in the area of the fire risk, as well as economic impact to the community.¹⁴ The CFPD relies on what is known as "total reflex time," which considers variables such as ignition time of the fire, 9-1-1 notification and dispatch processing time, firefighter turn-out, travel time, set-up time, and fire extinguishment. As such, the "total reflex time" establishes a baseline to which firefighters aim to achieve with respect to response times, as shown in Table 4.11-1. Provided the increase in housing units were projected to occur in areas available for development, and given the current economic conditions, the concentration of additional housing is not expected to occur in areas of dense forests, thereby minimizing the potential increase of wildfires as a result of development. As such, the additional housing units would be unlikely to affect response times enough to warrant the new construction, or expansion, of existing facilities.

TABLE 4.11-1 TOTAL REFLEX TIME (MINUTES) COMPARISON OF FIRE AND EMERGENCY MEDICAL SERVICES

Service Provider	Ignition & Free Burn	Detection	Notification	Turn-Out	Set-Up	Extinguish
Fire	0	:30	1:00	2:00	10:00	\longrightarrow
EMS	Brain Death Starts in 4 to 6 Minutes				Death	

Note: The table is representative of the "total reflex time" which help to establish a baseline of response times to which the CFPD aims to meet or exceed. Actual response time goals can vary.

Source: CFPD, Master Plan/Strategic Plan, revised 2007, page 31.

¹³ Personal communication between CFPD Fire Chief Jeff Maxwell and Project Planner Ricky Caperton on August 13, 2013.

¹⁴ Central Fire Protection District, Master Plan/Strategic Plan, revised 2007, pages 33 to 34.

Potential impacts to fire protection services resulting from the proposed Plan would also be further minimized by ABX 129. ABX 129, as described in the regulatory section above, establishes a fee to homeowners in State Responsibility Areas (SRAs), which are primarily forested regions throughout the State that are within the jurisdiction of CAL FIRE, are assessed a fire protection fee to help offset costs to extinguish fires within SRAs. As such, Santa Cruz County works with CAL FIRE and, therefore, additional housing units could be subject to the fire protection fee. While this fee is not currently assessed for new construction it would apply to new development and would help to pay for the growth anticipated under the proposed Plan.

Although CFPD Fire Station 4, located at 405 Capitola Avenue, does exhibit inadequacies due to its size, location and vulnerability to seismic, flood and liquefaction hazards, these issues have been identified in the Master Plan/ Strategic Plan and are existing conditions that are not affected by implementation of the proposed Plan. Additionally, the Master Plan/ Strategic Plan recommends replacing this station along with station 3.

The proposed Plan includes goals, policies, and actions that would reduce risks associated with fire hazards and minimize calls for fire and emergency medical response services in Capitola, which are listed below. Based on available fire mapping for Santa Cruz County, there are no wild land fire hazard areas in Capitola, although fire hazards areas exist in the nearby foothills of the Santa Cruz Mountains.

Policies, goals, and actions to reduce risks associated with fire hazards include:

- Goal SN-3. Protect lives and property from risks associated with urban fires.
- Policy SN-3.1 Cooperative Agreements. Maintain cooperative fire protection and fire prevention agreements with the Central Fire Protection District of Santa Cruz County.
- Policy SN-3.2 Public Education. Continue to support the Central Fire District fire safety and fire prevention public education programs.
- Policy SN-3.3 City-Owned Space. Maintain City-owned open space in a manner that minimizes fire hazards.
- Policy SN-3.4 Development Review. Encourage early review of proposed development project plans by the Central Fire Protection District.
- Policy SN-3.5 Fire Hazard Risk Assessment. Ensure that the development project review process addresses fire risk, including an assessment of both construction- and project-related fire risks, particularly in areas with significant amounts of vegetation.
- Policy SN-3.6 Fire Safety Plans. Continue to review fire safety plans for new development within designated wildland/urban interface areas. Fire safety plans shall address emergency access, site design for maintenance of defensible space, and use of non-combustible materials, as required by California Public Resources Code (PRC) 4290 and 4291.
- Policy SN-3.7 District Support. Support Central Fire Protection District efforts to minimize fire hazards through removal of vegetation, hazardous structures and materials, and debris.
- Action SN-3.1 Invasive Species. Cooperate with the California Department of Forestry and Fire Protection to reduce any identified significant fire threat resulting from invasive species such as eucalyptus groves, which are not a constituent of protected habitat areas.

- Action SN-3.2 Sign/Address Marking Visibility. Monitor the visibility of road signs and address markings of businesses and residences, and address visibility issues to maximize fire response times.
- Action SN-3.3 Emergency Access. Coordinate with public safety providers to implement feasible improvements and/or access plans for roadways with identified fire and emergency access deficiencies.

Given the relatively small projected increases in population, housing units, and jobs, along with proposed goals, policies, and actions related to fire protection, the proposed Plan would not result in the need for the construction of a new facility which could result in significant environmental effects, and therefore the impact would be *less-than-significant*.

Applicable Regulations:

- California Building Code
- California Fire Code
- Assembly Bill X1 29 Fire Protection Fee
- Development Review, Municipal Code Chapter 17.63
- Central Fire Protection District of Santa Cruz District Regulations
- County of Santa Cruz General Plan, Chapter 6, Safety and Noise

Significance Before Mitigation: Less than significant.

4.11.1.4 CUMULATIVE IMPACT DISCUSSION

SVCS-2 The proposed Plan, in combination with past, present, and reasonably foreseeable development would result in less than significant cumulative impacts with respect to fire protection service.

A significant cumulative environmental impact would result if, in combination with other past, present, and reasonably foreseeable development, buildout of the proposed Plan would exceed the ability of fire and emergency medical responders to adequately serve the vicinity, thereby requiring construction of new facilities or modification of existing facilities. This section analyzes potential impacts to fire protection services that could occur from the proposed Plan in combination with reasonably foreseeable growth in the CFPD service area. The geographic scope included in this cumulative impact discussion also include Soquel and Live Oak areas of Santa Cruz County, which are also served by the CFPD in addition to Capitola and, therefore must be considered.

The Safety and Noise Element of the Santa Cruz County General Plan includes policies which would minimize or reduce risks of fire hazards in the service area of the CFPD. Policy 6.5.3, Conditions for Project Approval, of the Santa Cruz County General Plan sets forth regulations that "all new structures and additions larger than 500 square feet" and single-family dwellings must meet prior to project approval.¹⁵ Additionally, Policy 6.5.7, Certification of

¹⁵ County of Santa Cruz, General Plan, page 6-17.

Adequate Fire Protection Prior to Permit Approval, require that, prior to approval, projects must obtain certification from the appropriate fire protection agency" that adequate fire protection is available. Further, the County General Plan includes Policy 6.5.9, Consistency with Adopted Codes Required for New Development, which states that all new development be consistent with the Uniform Fire Code, California Building Code, and other adopted County and local fire agency ordinance. Therefore, policies contained within the Santa Cruz County General Plan would ensure that new development within the County be adequately served by existing fire facilities which would result in less-than-significant impacts.

As previously mentioned, Live Oak and Soquel are unincorporated areas of Santa Cruz County, and must be considered given both areas are serviced by the CFPD. The Santa Cruz County General Plan incorporates a Population and Residential Growth Goal, which aims to "provide an organized and functional balance of urban, rural, and agricultural land use that maintains environmental quality; enhances economic vitality; protects the public health, safety, and welfare; and preserves the quality of life in the unincorporated areas of the County."¹⁶ Additionally, Policy 2.1.4, Siting of New Development, maintains that the location of new residential, commercial, or industrial development is developed in close proximity to existing developed areas. As such, additional growth occurring in Live Oak and Soquel would concentrate in and around areas already developed, and adequately served by existing fire protection services, thereby reducing the need for additional fire protection service facilities.

Additionally, individual projects permitted under the proposed Plan would be subject to separate CEQA review which would identify potential environmental impacts and mitigation measures as needed. As described above, implementation of the proposed Plan includes policies which would minimize or mitigate potential project specific and cumulative impacts to less-than-significant levels in combination with the policies contained in Chapter 6, Public Safety and Noise, of the County General Plan.

Applicable Regulations:

- California Building Code
- California Fire Code
- Assembly Bill X1 29 Fire Protection Fee
- Development Review, Municipal Code Chapter 17.63
- Central Fire Protection District of Santa Cruz District Regulations
- County of Santa Cruz General Plan, Chapter 6, Safety and Noise

Significance Before Mitigation: Less than significant.

4.11.1.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to fire protection service and therefore no mitigation measures are required.

¹⁶ County of Santa Cruz, General Plan, page 2-4.

4.11.2 POLICE PROTECTION SERVICES

This section describes the current police protection services conditions in Capitola and evaluates potential impacts related to the delivery of police protection services that could result from buildout of the proposed Plan.

4.11.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

City of Capitola Municipal Code

The City of Capitola Municipal Code contains regulations to protect the service response times of the Capitola Police Department (CPD).

Chapter 5.14, Security Alarm Systems, requires commercial alarm system users to obtain an alarm permit to ensure that systems are appropriately installed and maintained in order to minimize the potential for false alarms triggered by faulty or inadequate alarm systems, which could negatively affect service response times. As such, Chapter 5.14 sets forth security alarm standards, system registration requirements, and fees to be paid in excess of two false alarms within a calendar year.

Additionally, Section 17.63.090 establishes considerations the site review committee must take into account when reviewing site plans. Specifically, Section 17.63.090 states the review committee must consider safety as part of the review process.

Existing Conditions

Capitola Police Department

The Capitola Police Department (CPD) provides police protection services within the city limits of Capitola from its police headquarters, located at 422 Capitola Ave, Capitola, California 95010. Areas located within the Sphere of Influence (SOI), such as Live Oak and Soquel are serviced by the Santa Cruz Sheriff's Department. The CPD has a number of community-oriented policing programs, including the Community Oriented Policing and Problem Solving (COPPS) program, Community Policing, Police Explorers, Neighborhood Watch, Commercial Security Program, Elder Programs, Reserve Program, Volunteers in Policing (VIP), and the Capitola Public Safety Foundation.¹⁷

According to the City of Capitola Proposed Budget for fiscal year 2013/14, the CPD staff consisted of a staff of 30.5 employed positions and two canines. Included were 21 sworn officers, 3 community service officers, three

¹⁷ City of Capitola, http://www.cityofcapitola.org/general/page/police-home, accessed August 6, 2013.

parking enforcement officers, 4.5 administrative staff, and two canines.¹⁸ There is one captain, one chief of police, and one records manager. The CPD fleet consists of 23 vehicles which includes eight patrol cars, five patrol motorcycles, four unmarked (detective, captain) cars, two community service officer trucks, and three miscellaneous vehicles.¹⁹

Crimes in Capitola are recorded using the Uniform Crime Reports (UCR), and report on part I crimes, part II crimes, and traffic accidents. Part I crimes include more serious offenses such as homicide, rape, robbery, aggravated assault, burglary, larceny, auto theft, and arson, and part II crimes are classified as domestic disturbances, vandalism/graffiti, drug violations, and all other assaults. According to the City of Capitola Police Website, the change in crime has seen a recent decline from 2010 to 2011 in most categories of crime, with the exception of burglary, injury collisions, hit and run accidents, vandalism/graffiti, and drug violations.²⁰ In fiscal year 2011/12, a total of 19,936 calls for service were made, up from 2010/11 which had 17,760 calls for service.²¹ Although calls for service increased, the number of crimes, arrests, and citations saw an overall decline, as shown in Table 4.11-2 below. Average response times in Capitola are recorded based on the severity of the crime, ranging from priority 1 being the most urgent, and subsequent priority levels decreasing in severity of crime. In 2010, average response times are as follows:²²

- Priority 1 Calls averaged 3 minutes and 48 seconds
- Priority 2 Calls averaged 5 minutes and 21 seconds
- Priority 3 Calls averaged 7 minutes and 16 seconds
- Priority 4 Calls averaged 15 minutes and 45 seconds
- Overall Calls (all priorities combined) averaged 10 minutes and 9 seconds.

4.11.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to police services if:

a. In order to maintain acceptable service ratios, response times, or other performance objectives for police services, the Plan would result in the provision of or need for new or physically altered police facilities, the construction or operation of which could cause significant environmental impacts.

¹⁸ City of Capitola, Proposed Budget 2013/14, page 15. Information updated by Rudy Escalante, Capitola Police Department Chief of Police, October 29, 2013.

¹⁹ RBF Consulting, White Paper # 5, 2011, page 6.

²⁰ City of Capitola, 2011 Crime Statistics, http://www.cityofcapitola.org/sites/default/files/fileattachments/General/ page/1487/2011_crime_stats.pdf, accessed August 6, 2013. Information updated by Rudy Escalante, Capitola Police Department Chief of Police, October 29, 2013.

²¹ City of Capitola, Proposed Budget 2013/14, page 15.

²² RBF Consulting, White Paper # 5, 2011, page 9.

CPD Responses	FY 2009/10	FY 2010/11	FY 2011/12	Change (2010/11 to 2011/12)
Calls for Service	19,693	17,760	19,936	+ 2,2176
Crimes – Felonies	833	708	682	- 26
Crimes – Misdemeanors	1,180	1,095	962	- 133
Arrests	1,096	946	875	- 71
Citations	4,020	2,126	1,862	- 264
Total	26,822	22,635	24,317	+ 1,682

TABLE 4.11-2 CAPITOLA POLICE DEPARTMENT RESPONSES

Source: City of Capitola Proposed Budget Fiscal Year 2013/14, page 15.

4.11.2.3 ENVIRONMENTAL IMPACT DISCUSSION

SVCS-3 The proposed Plan would not result in the need for construction or expansion of police facilities.

Buildout of the proposed Plan could bring an additional 280 residents, 80 housing units, and an additional 1,200 jobs to Capitola by 2035, creating an increased demand for police protection services in the Capitola Police Department service area, resulting from an increase in service calls and service locations. However, the increase in population, units, and jobs would occur throughout a 20-year period, thereby distributing the increase over multiple years, therefore, distributing the potential for increased service calls over a longer period of time, which would reduce impacts to existing facilities.

Municipal Code Chapter 5.14 regulates commercial alarm system users to minimize and reduce the amount of false alarms caused by faulty or improperly maintained alarm systems. Recognizing that false alarms can result in resources being diverted, which can affect response times for actual emergencies, Chapter 5.14 aims to ensure that calls for CPD services are adequately and promptly responded to.

Additionally, a number of policies, actions, and goals within the proposed Plan would help alleviate impacts associated with buildout of the proposed Plan. Such policies include:

- Goal SN-6. Maintain a safe environment in Capitola through the enforcement of law.
- Policy SN-6.1 Police Services. Maintain adequate police staffing, performance levels, and facilities to serve Capitola's existing population as well as future growth.
- Policy SN-6.2 New Development. Identify and mitigate law enforcement concerns during the project review and approval process.

- Policy SN-6.3 Physical Site Planning. Require physical site planning that prevents crime by locating walkways, open spaces, landscaping, parking lots, parks, play areas, and other public spaces in areas that are visible from buildings and streets.
- Policy SN-6.4 Lighting Plans. Require lighting plans that support crime prevention, including adequate lighting for parking lots, sidewalks, and street.
- Policy SN-6.5 Bars and Nightclubs. When approving use permits for a bar or nightclub use, include conditions
 of approval that address potential public safety impacts from that use.
- Policy SN-6.6 Crime Prevention Outreach. Continue to provide commercial and neighborhood crime prevention information and training to merchants and neighborhood groups.

Implementation of the proposed Plan policies, along with Municipal Code 5.14, would ensure the CPD and its facilities would be able to accommodate growth under the Plan. In the event future construction or expansion of Police Department facilities is needed, plans would be subject to separate CEQA review in order to identify potential environmental impacts and mitigation measures needed. As such, because buildout of the proposed Plan would not require expansion or construction of new facilities, the impact would be *less-than-significant*.

Applicable Regulations:

- Municipal Code, Chapter 5.14
- Municipal Code, Development Review, Section 17.63.090

Significance Before Mitigation: Less than significant.

4.11.2.4 CUMULATIVE IMPACT DISCUSSION

SVCS-4 The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less than significant cumulative impacts with respect to law enforcement services.

A significant cumulative environmental impact would result if, in combination with other past, present, and reasonably foreseeable growth in the Capitola Police Department service area, buildout of the proposed Plan would exceed the ability of law enforcement service providers to adequately serve the vicinity, thereby requiring construction of new facilities or modification of existing facilities.

The Capitola Police Department is responsible for providing all police service within city limits of Capitola. As discussed above, the changes and growth anticipated under the proposed Plan would not have any cumulative impact beyond the service boundary of the Capitola Police Department service area. Additionally, implementation of the proposed Plan's policies would reduce or minimize impacts associated with projected growth and, therefore the implementation of the proposed Plan would be less-than-significant cumulative impact on police services.

Applicable Regulations:

- Municipal Code, Chapter 5.14
- Municipal Code, Development Review, Section 17.63.090

Significance Before Mitigation: Less than significant.

4.11.2.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to police services and therefore no mitigation measures are required.

4.11.3 SCHOOLS

This section discusses the Plan-specific and cumulative impacts related to schools.

4.11.3.1 ENVIRONMENTAL SETTING

Regulatory Framework

State Regulations

Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding and whether the school district meets certain additional criteria involving bonding capacity, year-round school and the percentage of moveable classrooms in use.

California Government Code, Section 65995(b), and Education Code Section 17620

SB 50 amended California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every 2 years, according to inflation adjustments. On January 25, 2012 the State Allocation Board (SAB) approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) from \$2.97 to \$3.20 per square foot of assessable space for residential development of 500 square feet or more, and from \$0.47 to \$0.51 per square foot of chargeable covered and enclosed space for

commercial/industrial development.²³ School districts may levy higher fees if they apply to the SAB and meet certain conditions.²⁴

Mitigation Fee Act (California Government Code 66000-66008)

Enacted as AB 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put.²⁵ The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development plan on which it is to be levied. The Act came into force on January 1, 1989.

Local Regulations

Soquel Union Elementary School District - Board Policies Series 7000

The Soquel Union Elementary School District have adopted a series of policies which establish regulations and policies to guide development of school facilities within the District. Board Policy 7211, Developer Fees, adopted February 3, 2010, allows the Governing Board to establish, levy and collect developer fees on residential, commercial and industrial construction within the district in order to finance the construction or reconstruction of school facilities needed to accommodate students from new development.²⁶

Santa Cruz City Schools Policy Manual - Section 7211, Developer Fees

Section 7211, allows for the Santa Cruz City School District to levy and collect developer fees to fund school facilities resulting from impacts caused from development within the school district's service area.

Existing Conditions

Soquel Union Elementary School District

The Soquel Union Elementary School District (SUESD) provides K through 8 school services for students residing in the City of Capitola. The SUESD operates five schools, including one preschool/transitional kindergarten school, one middle school, and three elementary schools, as listed below.²⁷

- Transitional Kindergarden (TK) Opal Cliffs, 4510 Jade Street, Capitola, CA 95010
- Main Street Elementary, 3400 N. Main Street, Soquel, CA 95073
- ²³ State Allocation Board Meeting, January 25, 2012, http://www.documents.dgs.ca.gov/opsc/Resources/ Index_Adj_Dev.pdf, accessed on May 25, 2012.

²⁴ http://www.edsource.org/iss_fin_sys_facilities.html, accessed January 25, 2013.

²⁵ California Government Code, Sections 66000-66008, http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISdocID= 56595118777+0+0+0&WAISaction=retrieve, accessed on November 17, 2011.

²⁶ Soquel Union Elementary School District, Board Policy 7211, Adopted February 3, 2010.

²⁷ Soquel Union Elementary School District, <u>http://www.soqueldo.santacruz.k12.ca.us/about_us.html#district</u>, accessed on August 6, 2013.

- Santa Cruz Gardens Elementary, 8005 Santa Cruz, CA 95065
- Soquel Elementary, 2700 Porter Street, Soquel, CA 95073
- New Brighton Middle School, 250 Washburn Avenue, Capitola, CA 95010

As shown in Table 4.11-3, overall enrollment in the SUESD elementary schools realized a slight increase from the 2010/11 school year to 2011/12. As such, Main Street Elementary has recently reached its capacity, while the remaining elementary schools have yet to attain capacity. New Brighton Middle School has declined in enrollment from 693 to 657 in that same time span. As indicated below, New Brighton Middle School is below its capacity of 808. Soquel High School also saw a decline an enrollment from 1,030 in the 2010/11 school year to 1,003 recorded in the 2011/12 school year; also below its peak enrollment of 1,350 students.

School Name	Student Enrollment ^a (2010/11)	Student Enrollment ^b (2011/12)	Capacity ^a
SUESD Elementary			
Transitional Kindergarden (TK) Opal Cliffs ^c	-	-	58 ^c
Soquel Elementary	424	430	522
Santa Cruz Gardens Elementary	279	319	623
Main Street Elementary	484	486	486
Total Elementary	1,187	1,235	1,631
SUESD Middle School			
New Brighton Middle School	693	657	808
Total SUESD	1,880	1,892	2,439
SCCS High School			
Soquel High School	1,030	1,003	1,350

TABLE 4.11-3 SCHOOL ENROLLMENT TRENDS AND CAPACITY

a. Figures from RBF Consulting, White Paper #5, page 10.

b. Unless otherwise noted, figures from SUESD and Santa Cruz City Schools, School Accountability Report Cards, accessed August 6, 2013 Source: SUESD / Santa Cruz City Schools.

c. Ópal Cliffs Elementary did not open until the 2012/13 school year and therefore data for the 2010/11 and 2011/12 school years are not available. The physical capacity for the Transitional Kindergarten is 80 students, but contractual arrangements stipulate a teacher-to-student ratio that allows for a capacity of 58 students. Source: Robertson, Harley. Assistant Superintendent, Soquel Union Elementary School District. Personal communication with Alexis Mena, The Planning Center | DC&E. November 13, 2013.

In order to accommodate future growth, SUESD and SCCS Board Policy 7211, Developer Fees, allows for both school district's to levy and collect fees associated with commercial, industrial, and residential development within

the district in order to fund the construction or reconstruction of district school facilities to be able to accommodate students within the new development.²⁸

In an effort to prepare for and accommodate future growth, the SUESD purchased a future school site in 1956 on a 9.79-acre parcel of land located adjacent to Jade Street. The parcel was developed in 1977 to include a restroom building, tennis courts, and a parking lot; however, in 1982 was leased to the City of Capitola and subsequently developed as a community center. As such, the lease was amended in 1985 and 1986 in which the City will continue to operate portions of the site until the District plans to utilize the property for its original purpose.²⁹

The SUESD initiated plans for construction of classroom facilities and play areas in 2010 on a 2.5-acre portion located on the eastern edge of the Opal Cliffs property. The project includes construction two phases to accommodate pre-school, kindergarten, and first grade students. Phase I is planned to proceed and would include the improvements to the 2.5-acre portion. SUESD anticipated enrollment of 40 preschool and 40 elementary students, taught by approximately eight teachers and staff.³⁰ Phase II plans would include expansion to accommodate grades two through five, with additional play areas. Overall, the school would be able to accommodate 400 students and consist of 19-27 faculty and staff.³¹ Phase II is undergoing plan approval process. This school expansion is an existing condition that is not affected by the proposed Plan.

Santa Cruz City Schools

Soquel High School serves Capitola residents for grades 9 through 12, and is within the Santa Cruz City Schools (SCCS) system. Soquel High School is located at 401 Old San Jose Road in Soquel, California. As such, it is the closest High School serving high school-age students residing in the City of Capitola. As indicated in Table 4.11-3, student enrollment for the 2011/12 school year was 1,003 students, a decrease of 27 students from the previous school year. Enrollment capacity at Soquel High School is 1,350.

4.11.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to schools if:

b. In order to maintain acceptable service ratios or other performance objectives, the Plan would result in the provision of or need for new or physically altered school facilities, the construction or operation of which could cause significant environmental impacts.

²⁸ Soquel Union Elementary School District, Board Policy 7211, Adopted February 3, 2010.

²⁹ RBF Consulting, White Paper # 5, 2011, page 10.

³⁰ RBF Consulting, White Paper # 5, 2011, page 11.

³¹ RBF Consulting, White Paper # 5, 2011, page 11.

4.11.3.3 ENVIRONMENTAL IMPACT DISCUSSION

SVCS-5 The proposed Plan would not result in the provision of or need for new or physically altered school facilities, the construction or operation of which could cause significant environmental impacts.

The proposed Plan would have a significant environmental impact if buildout of the Plan would exceed the ability of local schools to adequately serve the SUESD service area, thereby requiring construction of new facilities or modification of existing facilities.

Soquel Union Elementary School District

As describe above in Table 4.11-3, overall enrollment in SUESD schools has generally increased in recent years; however, the increase was minimal and enrollment is well within capacity. Soquel Elementary saw increase of six students, and Main Street Elementary had an increase of two students. Santa Cruz Gardens Elementary experienced the largest increase of forty students from the 2010/11 to 2011/12 school year. Contrarily, New Brighton Middle School and Soquel High School experienced recent declines in enrollment, with enrollment decreasing from 693 to 657 at New Brighton Middle School, and from 1,030 to 1,003 at Soquel High School. Although slight increases have resulted in the 2011/12 school year, overall enrollment trends have steadily declined since 2001 and, therefore optimum capacity for the individual schools has rarely been obtained. As such, schools within the SUESD are currently operating at below capacity levels. Given that buildout projections could result in an increase of 280 residents over a 20-year period, it can be assumed that such an incremental change in population would not result in the need for new or physically altered school facilities, beyond the already planned improvements to the Opal Cliffs site, which would accommodate up to 400 students at capacity.

Although projected growth from buildout of the proposed Plan could increase the number of students within the SUESD service area, an estimated increase of 19 students (given an estimated average student generation rate of .24³²), the recent trends in enrollment indicates the increase in students would be accommodated.

Santa Cruz City Schools District

Soquel High School has recently seen a decline in enrollment, and has not reached capacity as a result. As such, the incremental increase of approximately 280 residents resulting from buildout of the proposed Plan is likely to be sufficiently accommodated. As indicated above, Soquel High School saw a decline in student enrollment from the previous year and is under capacity by approximately 347 students, as shown in Table 4.11-3. That said, the increase in population as a result of the Plan is less than the difference in capacity and actual enrollment of Soquel High School. Therefore, the Plan is unlikely to result in the need for new or expanded school facilities, with respect to high schools.

³² This rate was calculated using the existing number of students show in in Table 4.11-2 and existing housing units in Chapter 3, Project Description. The Soquel Union Elementary School District does not use a student generation rate. Source: Robertson, Harley. Assistant Superintendent, Soquel Union Elementary School District. Personal communication with Alexis Mena, The Planning Center | DC&E. November 13, 2013.

Because enrollment trends in both the SUESD and SCCS districts have indicated capacity has rarely been met in recent years, it is unlikely that school facilities would need to be expanded or constructed as a result of implementation of the proposed Plan and, therefore, the impact would be *less-than-significant*.

Applicable Regulations:

- Mitigation Fee Act
- Senate Bill 50
- California Government Code, Section 65995(b), and Education Code Section 17620
- Soquel Union Elementary School District Board Policies
- Santa Cruz City Schools District, Developer Fees

Significance Before Mitigation: Less than significant.

4.11.3.4 CUMULATIVE IMPACT DISCUSSION

SVCS-6 The proposed Plan, in combination with past, present, and reasonably foreseeable growth in the SUESD service area, would result in less than significant cumulative impacts with respect to schools.

This section analyzes potential impacts to school facilities that could occur from the proposed Plan in combination with reasonably foreseeable growth in the SUESD and SCCS service area. The SUESD service includes Capitola, areas of Santa Cruz, and Soquel. Both school districts service a broad geographic area, outside of the scope of this analysis, however, cumulative impacts from Capitola, Live Oak, and Soquel, resulting from buildout of the proposed Plan will be considered. As such, cumulative impacts would be the same as Plan-specific impacts, discussed above. Since buildout calculations for the proposed Plan only encompass all reasonably foreseeable development in Capitola through 2035, cumulative impacts will also include Soquel and Santa Cruz.

As indicated above, the SUESD, along with Soquel High School, have seen a decline in enrollment since 2011, and did not reach optimum capacity in the 2010/11 or 2011/12 school years. Given the declining enrollment trends in the school districts, the Plan is not expected to contribute to a cumulative impact to school service or create the need for the construction of new school facilities. As discussed above, the SUESD has existing plans to construct a new facility on a 9.79-acre parcel of land adjacent to Jade Street to accommodate a total of 400 preschool and elementary students, and require a staff of 19 to 27 faculty members upon completion. In addition, all development in the SUESD service area could be subject to pay developer impact fees. Therefore, with existing plans to construct a new facility, recent declines in enrollment, and developer fees, the proposed Plan would result in less-than-significant cumulative impacts with respect to schools.

Additionally, Soquel High School is under capacity by a number of students greater than what buildout projections of the Plan expect, and therefore cumulative impacts would be *less-than-significant*.

Applicable Regulations:

- Mitigation Fee Act
- Senate Bill 50
- California Government Code, Section 65995(b), and Education Code Section 17620
- Soquel Union Elementary School District Board Policies
- Santa Cruz City Schools District, Developer Fees

Significance Before Mitigation: Less than significant.

4.11.3.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to schools and therefore no mitigation measures are required.

4.11.4 LIBRARIES

This section describes the existing conditions and the potential impacts of the proposed Plan with regard to libraries.

4.11.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

Local Regulations

City of Capitola Municipal Code, Section 16.28.060, Dedication or in-lieu fees for park and recreational purposes

Section 16.28.060 of the Capitola Municipal Code (Municipal Code) sets forth the regulation to require the dedication of land or the payment of fees in lieu thereof, or a combination of both, for park and recreational purposes. As such, future development within Capitola under the proposed Plan could be subject to such fees and/or dedication of land.

Existing Conditions

The Capitola Library opened in 1999, and is one of 10 facilities within the Santa Cruz Public Libraries system serving a population of more than 200,000 residents throughout Santa Cruz County [except Watsonville]. It is located across the street from the Rispin Mansion, at the corner of Wharf Road and Clares Street. Prior to its opening in 1999, the City of Capitola had no public library for nearly 18 years, when the former Capitola Library

closed on November 18, 1981.³³ Despite being part of the Santa Cruz Public Libraries system, the existing library was completely funded by the City of Capitola, along with funding its opening day collection of books and operation.³⁴

Services at the Capitola Library include public internet access for adults and kids, printing, and free wireless internet access available to patrons with personal computers.³⁵ Internet access at Library workstations is available during operational hours, and available to all Santa Cruz library card hours and receive one hour free per day using their library card number and PIN number to log in.³⁶ At least one internet workstation is provided for kids, and subject to its own requirements per each branch. Printing services are available and cost \$0.15 cents per page for adults, and for kids the first ten pages are free (K-12 homework) and \$0.15 cents thereafter.³⁷ Additionally, there is a Teen Self Help collection in which books can be borrowed by anyone, library card or not, but must be returned. This privilege is based on the honor system, and only books with a star label above the call number may be borrowed under this service without checking with staff.³⁸

The Santa Cruz Public Libraries system consists of 10 branches located at various locations throughout Santa Cruz County, as depicted in Table 4.11-4, below.

The Capitola Library occupies a 4,320-square-foot modular building originally intended to serve as a temporary facility,³⁹ and in May of 2010, the City of Capitola City Council approved a plan to replace the existing building with a new 7,000 to 12,000-square-foot facility.⁴⁰ As such, funding is being explored to implement the plan to construct a new facility.

The Capitola Library operates with a staff of 2.3 full-time regular employees and 1.5 library aides who are temporary.⁴¹ Additional centralized staff, and administrative staff from headquarters also provide assistance, such as acquiring and processing materials.⁴²

As mentioned previously, the Capitola Library is funded by the City of Capitola, despite being part of the Santa Cruz Public Libraries system. As such, the City has an established Capitola Library Trust to fund the operation of the Capitola Library.⁴³

³³ RBF Consulting, White Paper # 5, 2011, page 13.

³⁴ Santa Cruz Public Library website, <u>http://www.santacruzpl.org/branches/6/</u>, accessed on August 7, 2013.

³⁵ Santa Cruz Public Library website, <u>http://www.santacruzpl.org/branches/6/,</u> accessed on August 7, 2013.

³⁶ Santa Cruz Public Library website, http://www.santacruzpl.org/branches/6/, accessed on August 7, 2013.

³⁷ Santa Cruz Public Library website, http://www.santacruzpl.org/branches/6/, accessed on August 7, 2013.

³⁸ Santa Cruz Public Library website, http://www.santacruzpl.org/branches/6/, accessed on August 7, 2013.

³⁹ Santa Cruz County Public Libraries, Santa Cruz Public Libraries Facilities Master Plan 2014-2023, page 9.

⁴⁰ RBF Consulting, White Paper # 5, 2011, page 13.

⁴¹ Personal communication between Teresa Landers, Library Director, and Ricky Caperton, Project Planner, August 9, 2013.

⁴² Personal communication between Teresa Landers, Library Director, and Ricky Caperton, Project Planner, August 9, 2013.

⁴³ City of Capitola, Proposed Budget 2013/14, page 150.

Distance from **Drive Time** Capitola Library Address (Miles) (Minutes)^a Library Capitola 2005 Wharf Rd., Capitola ----Aptos 7695 Soquel Drive, Aptos 3.8 9 **Boulder Creek** 133960 West Park Ave., Boulder Creek 18.3 34 Branciforte 230 Gault St., Santa Cruz 3.8 8 6.0 Downtown 224 Church St., Santa Cruz 11 20 Felton 6299 Gushee St., Felton 10.8 Garfield Park 705 Woodrow Ave., Santa Cruz 7.3 14 La Selva Beach 316 Estrella Ave., La Selva Beach 8.7 13 Live Oak 2380 Portola Dr., Santa Cruz 2.3 7 Scotts Valley 251 Kings Village Rd., Scotts Valley 8.5 14

TABLE 4.11-4 SANTA CRUZ PUBLIC LIBRARIES – DISTANCE FROM CAPITOLA LIBRARY

^a Drive time from Capitola Library, 2005 Wharf Road

Source: Google maps directions, August 14, 2013.

4.11.4.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the Plan would have a significant impact related to libraries if:

In order to maintain acceptable service ratios or other performance objectives, the Plan would result in the provision of or need for new or physically altered library facilities, the construction or operation of which could cause significant environmental impacts.

4.11.4.3 ENVIRONMENTAL IMPACT DISCUSSION

SVCS-7 The proposed Plan would not result in the provision of or need for new or physically altered library facilities.

A significant environmental impact would result if buildout of the proposed Plan would require new or physically altered library facilities.

Implementation of the proposed Plan could potentially add approximately 280 new residents to the Plan Area by 2035, which could increase the demand for library services and facilities in Capitola. Although the Plan projects an

additional 1,168 employees in Capitola, only local residents within Santa Cruz County can apply for a library card.⁴⁴ As such, the increase in employees in the Plan Area need not be further considered.

Although an increase in residents is expected growth under the proposed Plan would occur incrementally over a course of 20 years. The proposed Plan would also ensure adequate library facilities through Policy LU12.2, Library, which ensures the maintenance of a public library within Capitola that is appropriately sized and located to serve the entire community. As mentioned above, the Capitola Library has plans approved to construct a new facility to replace the existing 4,320-square-foot modular unit with a larger facility between 7,000 and 10,000 square feet, close to double the size of the existing facility. Under an agreement with Santa Cruz County, construction would begin by June 2018.⁴⁵ As such, much of the increased demand would be addressed through the already planned new facility, which would increase the overall square footage.

Although existing facility was meant to be a temporary facility and is currently inadequate to meet the needs of the community, the SCPL is a fully integrated county wide system and, therefore, community needs can be met by utilizing other facilities within the SCPL system.⁴⁶ Additionally, new development under the proposed Plan could be subject to Section 16.28.060 of the Municipal Code, which would allow the City to require dedication of land and/or in-lieu fees to accommodate recreational facilities, as a result of an increased demand. Further, given the fact that a new facility is already in the planning stages resulting from existing adequacies, the proposed Plan would, at buildout, would not result in the need for a new or physically altered library facility and, therefore the impact would be *less than significant*.

Current staffing levels would be expected to remain unchanged, and because of support from headquarters and the courier service between branches, additional staff would not be necessary; however, it was indicated that the final size and design of the new facility could change that. As such, an increase or expansion in staff would be due to the size and design of the new facility, not the proposed Plan at buildout and, therefore the impact would be *less than significant*.

Applicable Regulations:

Capitola Municipal Code, Section 16.28.060

Significance Before Mitigation: Less than significant.

4.11.4.4 CUMULATIVE IMPACT DISCUSSION

SVCS-8 The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to libraries.

⁴⁴ Santa Cruz Public Libraries, How to Get a Library Card, http://www.santacruzpl.org/services/detail/32/, accessed on September 13, 2013.

 $^{^{45}}$ RBF Consulting, White Paper # 5, 2011, page 13.

⁴⁶ Personal communication between Teresa Landers, Library Director, and Ricky Caperton, Project Planner, August 9, 2013.

This section analyzes potential impacts to library services that could occur from the proposed Plan in combination with reasonably foreseeable growth in the Santa Cruz Public Library (SCPL) service area. For purposes of analyzing cumulative impacts, the geographic scope of the SCPL service area includes all of Santa Cruz County, except the City of Watsonville, which maintains its own library. As such, implementation of the proposed Plan in conjunction with related projects would further increase demands on library services.

Future growth within the Santa Cruz Public Libraries service area will increase demand for library services and facilities; however the increase in service population would come incrementally over a period of 20 years. Further, the existing plans to construct a new larger facility to replace the existing modular unit would help the Capitola Library system accommodate growth in service population. Additionally, other libraries within the Santa Cruz Public Libraries system would alleviate increased demand in service population. As a result, the proposed Plan would result in a less-than-significant cumulative impact associated with libraries.

Applicable Regulations:

Capitola Municipal Code, Section 16.28.060

Significance Before Mitigation: Less than significant.

4.11.4.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant Plan-specific or cumulative impacts to libraries and therefore no mitigation measures are required.

4.12 PARKS AND RECREATION

This section describes the regulatory framework and existing conditions, and the potential for environmental impacts related to parks and recreation.

4.12.1 ENVIRONMENTAL SETTING

4.12.1.1 REGULATORY FRAMEWORK

State Laws and Regulations

The Quimby Act

Since the passage of the 1975 Quimby Act (California Government Code Section 66477), cities and counties have been authorized to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.¹ A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or park land, and the type of development project upon which the fee is imposed. Cities with a high ratio of park space to inhabitants can set a standard of up to 5 acres per 1,000 persons for new development. Cities with a lower ratio can only require the provision of up to 3 acres of park space per thousand people. The calculation of a City's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of City-owned parkland.

Local Regulations

Capitola Municipal Code

Title 16 Subdivisions

Section 16.28.060 Dedication, or In-Lieu Fees for Park and Recreational Purposes, incorporates Government Code Section 66477, also known as the Quimby Act, by reference, allowing for the requirement of the dedication of land or in-lieu fees, or a combination of both to the fullest extent allowable under Government Code 66477 in considering the approval of subdivisions. The basic provisions of the Quimby Act are described above.

¹ Westrup, Laura, 2002, *Quimby Act 101: An Abbreviated Overview, Sacramento: California Department of Parks and Recreation.* (http://www.parks.ca.gov/ pages/795/files/quimby101.pdf).

Local Coastal Program

Capitola's Local Coastal Program contains a number of policies relating to parks, open space, and recreation. Many of these policies aim to reduce hazards associated with coastal erosions and development near the city's bluffs and cliffs. Policies also aim to maintain easy public access to the waterfront and to minimize visual impacts of structures constructed in the coastal zone. The Plan was originally certified by the California Coastal Commission in 1981, but was revised and updated in October 2001 and January 2005.

4.12.1.2 EXISTING CONDITIONS

City Parks and Recreation

Parks

As shown in Table 4.12-1, there are six City parks in Capitola, totaling over 18 acres. Five of these parks are smaller neighborhood parks. One park, Jade Street Park, is a larger park with a community center intended to serve the entire community. Table 4.12-1 also generally describes the amenities provided at each park.

In addition to the neighborhood parks in Capitola, there are approximately 20 acres of beach which serve the region and the city. Activities here include fishing, sports, hiking, and biking. Moreover New Brighton State Beach is partially located within Capitola's city limits and offers picnic areas, swimming, fishing, and a nearby forest of Monterey pine and coastal live oak. Additionally, there is a camping area on a bluff overlooking northern Monterey Bay.

Recreation Programs

The Capitola Recreation Department offers recreational classes for Capitola youth, adults, and seniors. Classes are held at the Capitola Community Center at the Jade Street Park and at other locations in the Capitola area. Capitola residents are also permitted to use recreational facilities at the New Brighton Middle School.

State and County Parks and Open Space

There are over 1,800 acres of State and County parks and open space within a 2.5-mile radius of Capitola. Major regional parks and open space facilities in the area around Capitola include New Brighton State Beach, Seacliff State Beach, Anna Jean Cummings Park, Twin Lakes Park, and the Day Valley Open Space Area. Approximately 81 acres of New Brighton State Beach are within the city limits of Capitola. There are also a variety of trails offering recreational opportunities including the Santa Cruz County Section 7 portion of the California Coastal Trail that runs near the coast through Capitola, allowing for a variety of recreation opportunities for nearby residents.

Name	Size	Туре	Amenities
Cortez Park	1.1 acres	Neighborhood Park	Open field and playground equipment
Esplanade Park	1.2 acres	Neighborhood Park	Oceanfront seating and grassy field
Jade Street Park	9.9 acres	Community Center and Park	Community center, athletics fields, tennis courts, playground equipment
Monterey Park	4.0 acres		Baseball diamond and athletic fields
Nobel Park	1.3 acres	Neighborhood Park	Open field and picnic tables
Peery Park	0.8 acres	Neighborhood Park	Soquel River woodlands
Total	18.3 acres		

TABLE 4.12-1 CAPITOLA PARKS

Sources: City of Capitola, 2011.

4.12.2 THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact with regard to parks and recreation if it would:

- Result in substantial, adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities; the need for new or physically altered parks and recreation facilities in order to maintain acceptable service ratios, the construction of which could cause significant environmental impacts; or other performance objectives.
- 2. 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.
- 3. Include or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

4.12.3 ENVIRONMENTAL IMPACT DISCUSSION

PS-1 The proposed Plan would not result in substantial, adverse physical impacts associated with the provision of new or physically altered parks and recreational facilities in order to maintain an acceptable ratio of parkland per thousand residents.

The proposed Plan would have a significant environmental impact if it would require the provision of new or altered parks and recreational facilities in order to achieve an acceptable ratio of parkland per thousand residents. Since the City has not adopted an acceptable ratio, preferring to concentrate on the quality of parks rather than a focus on acreage, there would be no impact because there is no standard against which to compare future conditions under the proposed Plan. The Quimby Act, while it does not apply here, requires a minimum of 3 acres

of parkland per thousand residents. The total park acreage in Capitola, including the portion of New Brighton State Beach and other beach areas within city limits, is approximately 119 acres. As described in Chapter 4.10 of this Draft EIR, buildout of the proposed Plan is anticipated to result in a total population of 10,198 residents by 2035. Therefore even with no growth in parkland from 2010 to buildout in 2035, the ratio of acres of parkland to residents would be 10.83 acres per 1,000 residents, far beyond what is typically required under the Quimby Act. Therefore, due to the unique setting of Capitola with its significant coastline recreation area, variety of nearby regional parks, and lack of an adopted ratio of parkland to residents, a *less-than-significant* impact would result.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

PS-2 The proposed Plan would not 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.

Local Parks

There are four neighborhood parks in the city of Capitola. These include Cortez Park, Esplande Park, Nobel Park, and Peery Park. The increase in population from 2010 to buildout in 2035 is projected to be approximately 280 additional residents, an increase of about three percent. This relatively minor increase is anticipated to occur incrementally over a period of 20 years. Additionally the General Plan Update includes goals and policies, which call for parks opportunities to correspond with the needs of the community. Policy LU-13.2 directly addressed neighborhood parks and calls for the city to maintain a network of neighborhood parks with a variety of facilities that cater to the needs and interests of park users.

Non-residential uses can also bring people to the area that will use these parks and recreational facilities. Employment in Capitola is anticipated to increase by 1,200 jobs by 2035, an approximately 19 percent increase from the base year of 2010. However, the policy framework in the proposed Plan, including Policy LU-4.7, would help to minimize these impacts by ensuring that future planning efforts for non-residential areas carefully consider potential impacts on adjacent residential neighborhoods. Additionally, although some workers of the new jobs may move to Capitola, individuals who are employed in Capitola, but do not live in Capitola, are likely to have less of an impact on park facilities than residents because of the more limited time spent within the city. Therefore, because the increase in residential population would be minor and incremental and the increase in daytime population from the increase in employment would be adequately minimized by the policy framework, the proposed Plan would have a *less-than-significant* impact on neighborhood parks.

Regional Parks

As stated above, the increase in population in the City of Capitola is anticipated to be minor and incremental over a period of 20 years. Additionally, the proposed Plan includes Policy LU-13.8, which encourages intergovernmental coordination with relevant governmental agencies. Moreover the regional parks in the area are sufficient to serve

PARKS AND RECREATION

the existing regional population at this time. Therefore, implementation of the proposed Plan would result in a *less-than-significant* impact to regional parks.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

PS-3 The proposed Plan would not include or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

The proposed Plan update does not directly propose the construction or expansion of parks and recreational facilities in Capitola. Direct impacts would be less than significant. The proposed Plan update does designate undeveloped land for the use as parks. Development of parks and recreation facilities at these locations would continue to be subject to development standards and separate environmental review. Additionally, as discussed above, the increase in population from 2010 to buildout in 2035 is projected to be approximately 280 additional residents, an increase of about three percent. This relatively minor increase is anticipated to occur incrementally over a period of 20 years. For these reasons, implementation of the proposed Plan would have a *less than significant* impact.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

4.12.4 CUMULATIVE IMPACT DISCUSSION

PS-4 The proposed Plan, in combination with past, present, and reasonably foreseeable growth, would result in less-than-significant cumulative impacts with respect to parks and recreational facilities.

A significant cumulative environmental impact would result if buildout of the proposed Plan, in combination with other past, present, and reasonably foreseeable projects, would cause substantial deterioration of existing neighborhood and regional parks or require the construction of new or expanded parks and recreational facilities, the construction of which could result in adverse environmental impacts. This section analyzes potential cumulative impacts to parks and recreational services that could occur from buildout of the Plan in combination with projects within the City of Capitola and surrounding areas.

PARKS AND RECREATION

Table 4.12-2 shows the historical levels of growth in Capitola and surrounding areas. There are over 1,800 acres of State and County parks and open space within a 2.5-mile radius of Capitola.² Major regional parks and open space facilities in the area around Capitola include New Brighton State Beach, Seacliff State Beach, Anna Jean Cummings Park, Twin Lakes Park, and the Day Valley Open Space Area.

	2000	2010	Percent Change
Capitola	10,033	10,198	2%
Santa Cruz	54,593	59,684	9%
Scotts Valley	11,385	11,903	5%
Watsonville	44,265	52,543	19%
Santa Cruz County	255,602	272,201	6%
California	33,873,086	38,648,090	14%

TABLE 4.12-2 POPULATION GROWTH, 2000-2010

Source: California Department of Finance E-1 and E-5 Estimates, 2010.

Growth in the resident and employee populations of Capitola would result in increased use of neighborhood parks and local recreational facilities, as well as regional facilities. As discussed above, the impacts to Capitola parks and recreational facilities would not be significant because continued implementation of the park land dedication requirements outlined in the Municipal Code, would ensure that additional parkland is provided as development occurs in the city and new residents arrive. Likewise the proposed Plan itself calls for the maintenance of a network of parks and the provision of additional parks as dictated by the population and surrounding land uses. New parks and recreation facilities would be adequately covered under existing development and environmental review standards. Therefore, buildout of the proposed Plan, in combination with other past, present, and reasonably foreseeable projects, would result in a *less-than-significant* cumulative impact to parks and recreational services.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

² Design, Community, and Environment, 2012, General Plan Update, Existing Conditions White Paper # 1, Community Overview, Land Use, Population and Housing, Parks and Open Space, Historic Resources.

4.12.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The project would not result in any significant Plan-specific or cumulative impacts to parks and recreational services. Therefore, no mitigation measures are required.

PARKS AND RECREATION

This chapter describes the existing conditions in the Plan Area and potentially significant transportation impacts resulting from implementation of the proposed Plan. Impacts are evaluated based upon a comparison between existing conditions and future conditions (Year 2035) with implementation of the proposed Plan.

The transportation information presented in this section is derived from data collected from the City of Capitola General Plan Transportation and Parking White Paper prepared by RBF Consulting and Kimley-Horn Associates and included as Appendix D, Traffic.

4.13.1 ENVIRONMENTAL SETTING

4.13.1.1 REGULATORY FRAMEWORK

This section summarizes key federal, State, County, and City statutes, regulations, and policies that would apply to the proposed Plan. The information provides a context for the impact discussion related to the proposed Plan's consistency with the applicable regulatory conditions.

Federal Laws and Regulations

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the U.S. Access Board, an independent Federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. These guidelines would apply to proposed roadways in the Plan Area.

State Laws and Regulations

California Department of Transportation

The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation issues. One of its duties is the construction and maintenance of the State highway system. Caltrans approves the planning, design, and construction of improvements for all State-controlled facilities on Highway 1, and the associated interchanges for these facilities located in the Plan Area. Caltrans has established standards for roadway traffic flow and developed procedures to determine if State-controlled facilities require improvements. For projects

that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities, but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

The following Caltrans procedures and directives are relevant to the Plan Components, particularly State roadway facilities:

- Level of Service Target. Caltrans maintains a minimum level of service at the transition between level of service (LOS) C and LOS D for all of its facilities. Where an existing facility is operating at less than the LOS C/D threshold, the existing measure of effectiveness should be maintained.
- Caltrans Project Development Procedures Manual. This manual outlines pertinent statutory requirements, planning policies, and implementing procedures regarding transportation facilities. It is continually and incrementally updated to reflect changes in policy and procedures. For example, the most recent revision incorporates the Complete Streets policy from Deputy Directive 64-R1, which is detailed below.
- Caltrans Deputy Directive 64. This directive requires Caltrans to consider the needs of non-motorized travelers, including pedestrians, bicyclists, and persons with disabilities, in all programming, planning, maintenance, construction, operations, and project development activities and products. This includes incorporation of the best available standards in all of the Caltrans practices.
- Caltrans Deputy Directive 64-R1. This directive requires Caltrans to provide for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans supports bicycle, pedestrian, and transit travel with a focus on "complete streets" that begins early in system planning and continues through project construction and maintenance and operations.
- Caltrans Director's Policy 22. This policy establishes support for balancing transportation needs with community goals. Caltrans seeks to involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians.

Complete Streets Act of 2008

AB 1358 places the planning, designing, and building of complete streets into the larger planning framework of the general plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks. These networks should allow for all users to effectively travel by motor vehicle, foot, bicycle, and transit to reach key destinations within their community and the larger region. Local jurisdictions need to view all transportation projects, new or retrofit, as opportunities to improve safety, access, and mobility for all travelers and recognize pedestrian, bicycle, and transit modes as integral elements of their transportation system. The standard practice should be to construct complete streets while prioritizing project selection and project funding so that jurisdictions accelerate development of a balanced, multimodal transportation network.

Multimodal transportation networks allow for all modes of travel including walking, bicycling, and transit to be used to reach key destinations in a community and region safely and directly. Jurisdictions can use complete streets

design to construct networks of safe streets that are accessible to all modes and all users no matter their age or ability. Complete streets have been defined by various organizations, as follows:

- National Complete Streets Coalition: "Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and transit riders of all ages and abilities must be able to safely move along and across a complete street. Creating complete streets means transportation agencies must change their orientation toward building primarily for cars. Instituting a complete streets policy ensures that transportation agencies routinely design and operate the entire right of way to enable safe access for all users."
- American Planning Association: "Complete streets serve everyone pedestrians, bicyclists, transit riders, and drivers and they take into account the needs of people with disabilities, older people, and children. The complete streets movement seeks to change the way transportation agencies and communities approach every street project and ensure safety, convenience, and accessibility for all."

California Transportation Commission

The California Transportation Commission (CTC) consists of nine members appointed by the Governor. The CTC is responsible for the programming and allocation of funds for the construction of highway, passenger rail, and transit improvements throughout the State, including in the Plan Area. The CTC is also responsible for managing the State Transportation Improvement Program (STIP) and the State Highway Operation and Protection Program (SHOPP) funding programs.

California Building Code

The State building standards code, Title 24 of the California Code of Regulations, provides fire and emergency equipment access standards for public roadways in Part 9 (California Fire Code), Appendix D. These standards include specific width, grading, design, and other specifications for roads that provide access for fire apparatuses; the code also indicates which areas are subject to requirements for such access. The code also incorporates by reference the standards of the International Fire Code. The future construction of streets in Capitola would be subject to these and any modified State standards. The City of Capitola adopted the 2010 edition of the State Building Code in 2011.

Regional Agencies, Plans, and Policies

Association of Monterey Bay Area Governments

The Association of Monterey Bay Area Governments (AMBAG) is the federally designated Metropolitan Planning Organization (MPO) for transportation planning activities in the tri-county Monterey Bay Region. AMBAG is the lead agency responsible for developing and administering plans and programs to maintain eligibility and receive federal funds for the transportation systems in the Monterey, San Benito, and Santa Cruz Counties. As the MPO, AMBAG provides the forum for cooperative decision making in the development of transportation plans, programs, and recommendations.

AMBAG works with Regional Transportation Planning Agencies (San Benito Council of Governments, the Santa Cruz County Regional Transportation Commission, and the Transportation Agency for Monterey County), transit

providers (Monterey Salinas Transit and Santa Cruz METRO), the Monterey Bay Unified Air Pollution Control District (MBUAPCD), State and federal governments, and organizations having interest in or responsibility for transportation planning and programming. AMBAG also coordinates transportation planning and programming activities with the three counties and eighteen local jurisdictions within the tri-county Monterey Bay Region, including Capitola.

In 2012, AMBAG initiated an effort to study what the Monterey Bay region might look like by year 2035, and how future transportation improvements should be prioritized.

Moving Forward Monterey Bay is an initiative led by AMBAG to create an integrated long-range transportation and land-use plan that will support a growing economy, provide more housing and transportation choices, and reduce transportation-related pollution in the Monterey Bay region of Santa Cruz, Monterey, and San Benito counties. Referred to as the AMBAG 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (the Plan), Moving Forward Monterey Bay is a work in progress that will be updated every 4 years to reflect new priorities. The first MTP/SCS is scheduled to be approved by the AMBAG Board in June of 2014.

Santa Cruz County Regional Transportation Commission

The Santa Cruz County Regional Transportation Commission (SCCRTC) is comprised of a commission of elected Santa Cruz County and city officials that set priorities for major transportation infrastructure projects, including highways, major roads, rail, and alternative transportation facilities in Santa Cruz County. They also pursue and allocate funding for all elements of the area's transportation system.

One of the primary responsibilities of the SCCRTC is to prepare a Regional Transportation Plan (RTP), a Statemandated, long range planning document to guide future transportation funding decisions. The RTP outlines transportation challenges and establishes investment priorities for all of Santa Cruz County. The plan includes a list of transit, highway, local road, bike, and pedestrian needs throughout Santa Cruz County and estimates the amount of local, State, and federal dollars that may be available for these projects over the next 25 years. The plan is updated every 4 to 5 years to reflect the latest funding and project needs. The RTP was last updated in 2010. The next RTP update will be in 2014 in coordination with the MTP/SCS.

Local Policies

County of Santa Cruz

The County of Santa Cruz Public Works Department is responsible for maintaining County-owned roads, bridges, and related facilities in the unincorporated portion of the county. The 1994 Santa Cruz County General Plan and Local Coastal Program, along with the County's regulations and capital improvement programs, control development and transportation improvement within the County's jurisdiction.

Existing Capitola General Plan

The Capitola Public Works Department is responsible for maintaining roads, bridges, and related facilities in Capitola. The City of Capitola General Plan was adopted in 1989 and provides a comprehensive overview of

future development in Capitola. As defined in Policies 1 and 2 of the Circulation Element, LOS C is the minimum acceptable standard for circulation within Capitola, except within Capitola Village, where LOS D is the minimum acceptable standard.

4.13.1.2 EXISTING CONDITIONS

This section describes the existing transportation and traffic conditions in the Plan Area, including existing vehicular circulation, transit service, bicycle, and pedestrian circulation.

Vehicular Circulation

Existing Roadway Network

The existing roadway network in Capitola consists of freeways, arterials, collectors, and local streets. In the past, streets have often been classified by their function, commonly referred to as the functional classification system (FCS). This traditional FCS is based on the mobility and access functions of roads for motor vehicle traffic. The FCS allows traffic/transportation engineers to properly design roads. Each class (category) of road has certain design guidelines. These guidelines ensure safety and ease of maneuverability, and therefore dictate the cost of construction.

Street classifications are described in Table 4.13-1 and are illustrated in Figure 4.13-1.

Principal Arterials (Freeways) and Interchanges

Freeways are designed to carry high volumes of traffic at very high travel speeds. Travel along freeways is generally unimpeded and provides inter-regional and inter-state travel for passenger cars and commercial vehicles.

Highway 1 is the only freeway within Capitola. There are three freeway interchanges providing access to Capitola from Highway 1. These interchanges are located at 41st Avenue, Bay Avenue/Porter Street, and Park Avenue. The 41st Avenue interchange is one of the busiest in Santa Cruz County. The bridge over Highway 1 contains two northbound lanes and three southbound lanes and pedestrian sidewalks and bike lanes on both sides. During peak periods, between 12:00 p.m. and 2:00 p.m., and on weekends, this interchange becomes very congested and operates at or near its capacity. At both the Bay Avenue/Porter Street and Park Avenue interchanges, north-south access is via an underpass under Highway 1.

Additionally, two roadways provide through access north across Highway 1 to Soquel: Soquel-Wharf Road passes under Highway 1 east of 41st Avenue, and Capitola Road passes over Highway 1 east of Bay Avenue/Porter Street.

Highway 1 High Occupancy Vehicle Lane Widening Project

The Santa Cruz Country Regional Transportation Commission (SCCRTC), in partnership with California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), has developed project alternatives to reduce congestion and improve safety and traffic operations on Highway 1 between Aptos and Santa Cruz. The Highway 1 High Occupancy Vehicle (HOV) Lane Widening Project extends approximately



Source: RBF ConsusIting 2013

Figure 4.13-1 Existing Roadway Network

Street Classification	Description	Existing Average Daily Traffic Range ^a	Capitola Streets ^b
Principal Arterial (Freeway)	Serves major centers of activity with the highest traffic volumes and longest trip lengths. Integrated internally and between major rural connections. Service to abutting lands is subordinate to travel service to major traffic movements. Design types are interstate, other freeways and other principal arterials.	>80,000	Highway 1
Arterial	Trips of moderate length at a lower level of mobility than principal arterials. Some emphasis on land access. Often carry local bus routes and provide intra-community continuity but does not access neighborhoods.	6,500 to 45,000	41 st Avenue, Gross Road from Soquel Avenue to 41 st , Clares Street west of 41 st , Brommer Street, Bay Avenue, Capitola Road, East Cliff, Capitola Avenue south of Bay, Monterey Avenue south of Bay and Park Avenue.
Minor Arterials	Provides both land access and traffic circulation within all areas. Accesses neighborhoods and communities collecting and distributing traffic between neighborhoods and the arterial streets.	800 to 4,500	Clares Street (east of 41 st), Wharf Road, 38 th Avenue, Capitola Avenue (north of Bay), Monterey Avenue (north of Bay) and Kennedy Drive
Local Streets	Primarily permits direct land access and connections to the higher order streets. Lowest level of mobility. Through traffic is usually deliberately discouraged.	~ < 2,000	All other streets.

TABLE 4.13-1 CAPITOLA STREET CLASSIFICATIONS

a. Average Daily Traffic (ADT) volumes are derived from the Santa Cruz County Regional Transportation Commission (SCCRTC) and applied to the City of Capitola existing General Plan street classifications.

Source: City of Capitola, SCCRTC, and RBF Consulting, 2011.

8.5 miles along Highway 1 from San Andreas/Larkin Valley Road to just north of Morrissey Boulevard. This project includes work on all sections of Highway 1 within Capitola and will modify the existing interchanges at 41st Avenue and Bay Avenue/Porter Street into a single interchange with local one-way roadways connecting the arterials. The overpass at 41st Avenue will be reconstructed as will the overpass for Capitola Avenue. The on/off ramps at each interchange will be reconfigured and include ramp metering. Sound walls will be included, where necessary, to mitigate noise from the highway.

In June 2003, work began with Caltrans and the Federal Highway Administration on the preparation of an Environmental Impact Report and Environmental Assessment (EIR/EA) on the Highway 1 HOV Lane Project. In September 2006, additional public information meetings were held to share information developed to date on the preliminary design plans, traffic performance measures, and environmental studies. Further detailed project design and environmental data, including the EIR/EA, is in development. A public review release date has not been identified. Funding is not secured to advance the project beyond the current environmental study. The 2010 Regional Transportation Plan assumes adoption of a transportation sales tax measure to provide a significant amount of the funding needed to advance this project into the next development phase – final design, right-of-way, and construction.

Arterials

Arterials provide regional connectivity and relatively unimpeded traffic flow for both passenger cars and commercial vehicles. These facilities can accommodate higher vehicle capacities and speeds. Access to arterials is limited by intersection spacing and driveway locations. Arterials can be classified as either major or minor arterials.

41st Avenue is the primary north-south arterial in Capitola and is one of the busiest roadways in Santa Cruz County. The City has worked with Santa Cruz County and Caltrans on a number of improvement projects to help improve traffic and traffic safety conditions on this roadway. The most significant project was the reconfiguration of 41st Avenue between the Highway 1 overpass and Capitola Road. This phased rehabilitation project includes the construction of additional lanes, sidewalk improvements, lane re-striping, the inclusion of bike lanes, and the installation of cameras at key intersections.

A traffic calming improvement project was also completed in 2012 on Capitola Road east of 41st Avenue. This project included the construction of traffic islands and pedestrian crosswalks. Other pending budgeted projects include 38th Avenue repaying, which includes the addition of bike lanes on both sides of the street and Clares Street streetscape improvements between 41st and Wharf Road.

As part of the redevelopment of the Nob Hill shopping center, Bay Avenue at Hill Street was improved with a reconstructed four-way stop and pedestrian crosswalks, as well as sidewalk improvements.

Local (Neighborhood) Streets

Local or neighborhood streets support low traffic volumes and slow travel speeds, typically in residential areas. They provide direct access to properties and connect to the higher capacity roadway network. Design guidelines of these roadways are designed to minimize travel speed, promote pedestrian safety, and prohibit cut through traffic. Access locations are generally very close together (approximately 500-foot spacing).

Over the years, Capitola has developed from a pre-automobile beach-side summer camp with tents and cottages to a full service community of 1.6 square miles with a year-round population near 10,000. Further, surrounding communities have developed along with Capitola so that the demands on the highways and roads have increased not only with Capitola growth, but also with the growth experienced throughout Santa Cruz County. Moreover, the automobile has, and continues to be, the dominant mode of transportation. In addition to increases in population, automotive traffic has increased as a result of a long-term trend toward more trips and vehicle miles traveled (VMT) by individual households.

Given these conditions, traffic congestion has increased dramatically, which has resulted in increased travel times. All of these factors have forced drivers to seek "short cuts" through open residential streets, and drive at a higher speed when given the opportunity. As a result, neighborhoods today in Capitola are experiencing more traffic, hearing more traffic noise, and are bearing more traffic-related impacts.

In January 2001, the City established the Neighborhood Advisory Traffic Committee (NATC). The NATC conducted a survey and identified and ranked the problems that were most important in the neighborhoods. Based on the results of the questionnaires, the top citywide concerns of the residents were the speed and volume of traffic through the neighborhoods. To address these concerns, the NATC identified a number of traffic
improvements throughout Capitola. Many of these improvements have been completed. Those that are still unfunded, along with other programmed (funded) and non-programmed general street improvement projects are incorporated into the City's Capital Improvement Program.

Existing Traffic Operations

To establish baseline traffic conditions in the Plan Area, RBF Consulting conducted an analysis of 21 intersections including 11 signalized intersections and ten unsignalized intersections in the city. These intersections, shown on Figure 4.13-2 and listed below, represent the main intersections that would provide access for future traffic under the proposed Plan.

- 1. 41st Avenue and Highway 1 NB Ramps
- 2. 41st Avenue and Highway 1 SB Ramps
- 3. 41st Avenue and Gross Road
- 4. 41st Avenue and Clares Street
- 5. 41st Avenue and Capitola Road
- 6. 41st Avenue and Brommer Street / Jade Street
- 7. Clares Street and Capitola Road
- 8. Wharf Road and Clares Street
- 9. 49th Avenue and Capitola Road
- 10. Wharf Road and Cliff Drive / Stockton Avenue
- 11. Porter Street and Highway 1 NB Ramps

- 12. Bay Avenue and Highway 1 SB Ramps
- 13. Bay Avenue and Hill Street
- 14. Capitola Avenue and Bay Avenue
- 15. Monterey Avenue and Bay Avenue
- 16. Monterey Avenue and Park Avenue
- 17. Capitola Avenue and Stockton Avenue
- 18. Monterey Avenue and Capitola Avenue
- 19. Park Avenue and Highway 1 NB Ramps
- 20. Park Avenue and Highway 1 SB Ramps
- 21. Park Avenue and Kennedy Drive

Data for the analysis included traffic data from the *Parking Analysis for the Capitola Village Area* in 2008, supplemented with new traffic counts conducted on Thursday May 23, 2013. Figure 4.13-3 shows the existing (year 2013) AM and PM peak hour turning movement traffic volumes at each of the project study intersections.

The existing intersection lane geometry at the study intersections was determined by observations in the field. They are shown in the calculation sheets included in Appendix D.

Analysis Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using level of service, a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or congested conditions with excessive delays. TRAFFIX 9.0 software was used to determine the delay and level of service of the intersections within the study area. To determine intersection-specific level of service impacts, the traffic volume and travel demand data discussed above were input into the TRAFFIX model. The analysis methods are described in detail below.



Source: RBF ConsusIting 2013

Figure 4.13-2 Project Study Intersections



Source: RBF ConsusIting 2013

Figure 4.13-3 Existing AM and PM Peak Hour Traffic Volumes

Signalized Intersections

The level of service methodology is based on the 2000 Highway Capacity Manual (HCM) method for signalized intersections. The TRAFFIX software was used to determine the HCM level of service at each of the project study intersections. The 2000 HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Control delay is the amount of delay that is attributed to the particular traffic control device at the intersection, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Table 4.13-2 summarizes the relationship between the control delay and level of service for signalized intersections.

Signal warrant analysis was conducted based upon the methodology recommended in the California Manual on Uniform Traffic Control Devices (CA-MUTCD) (California Department of Transportation, 2012). This analysis requires that an engineering study be performed before traffic signals are installed. Recommendations to provide signals are based on limited planning level data for the peak hour signal warrants only and may not be sufficient for installing signals. Furthermore, the decision to install a traffic signal should not be based solely upon the warrants, since the installation of traffic signals can lead to certain types of accidents. The relevant local or State agency should undertake regular monitoring of actual traffic conditions and accident data, and perform re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

Unsignalized Intersections

Traffic operations at unsignalized intersections were evaluated using the level of service method described in Chapter 17 of the HCM. The level of service for unsignalized intersections (side-street or all-way stop controlled intersections) is defined by the average control delay per vehicle (measured in seconds). The control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. Table 4.13-3 summarizes the relationship between delay and level of service for unsignalized intersections. The delay ranges for unsignalized intersections are lower than for signalized intersections as drivers expect less delay at unsignalized intersections.

The evaluation of signalized and all-way stop controlled intersection operations was performed using the TRAFFIX analysis software which utilizes the 2000 HCM methodologies, as described above. Although the new 2010 Highway Capacity Manual (2010 HCM; Transportation Research Board, 2010) is available at the time of this report, few jurisdictions have adopted the 2010 HCM in their analysis, as many level of service software programs have only recently released updates that incorporate the 2010 HCM methodologies.

However, the roundabouts included in the analysis were evaluated using the 2010 HCM methodology. The 2010 HCM provides a completely new procedure for analysis of roundabouts that is based on research conducted on roundabouts in the United States. Roundabouts were analyzed using the SIDRA 5.1 software, which is based on the 2010 HCM methodology. California calibration factors recommended in the Caltrans document Roundabout Geometric Design Guidance (Caltrans, 2007) were also applied to the SIDRA model to reflect local driver behavior at roundabouts. This is the most up-to-date recognized software tool available for roundabout analysis and is also being utilized by Caltrans. These methodologies are consistent with City of Marina, City of Seaside, and Monterey County standards for traffic analysis.

TABLE 4.13-2 SIGNALIZED INTERSECTION LEVELS OF SERVICE DEFINITIONS BASED ON CONTROL DELAY

LOS	Description of Operations	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
В	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
С	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high-volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation; that is, when arrival flow-rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delays.	Greater than 80.0

Source: Transportation Research Board, 2000, Highway Capacity Manual, pages 10 through 16.

TABLE 4.13-3 Unsignalized and Roundabout Controlled Intersection Level of Service Definitions Based on Delay

LOS	Description of Operations	Average Control Delay Per Vehicle (sec.)
А	Little or no traffic delay.	10.0 or less
В	Short traffic delays.	10.1 to 15.0
С	Average traffic delays.	15.1 to 25.0
D	Long traffic delays.	25.1 to 35.0
E	Very long traffic delays.	35.1 to 50.0
F	Extreme traffic delays.	Greater than 50.0

Source: Transportation Research Board, 2000, Highway Capacity Manual, pages 17 through 20.

Signal Warrants

The level of service analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of each intersection. This assessment is made on the basis of signal warrant criteria adopted by Caltrans. For this Draft EIR, the need for signalization is assessed on the basis of the peak-hour traffic signal warrant, Warrant #3 described in the 2010 California Manual on Uniform Traffic Control Devices (CAMUTCD). This method provides an indication of whether traffic conditions and peak-hour traffic levels are, or would be, sufficient to justify installation of a traffic signal.

Existing Intersection Levels of Service

Table 4.13-5, as shown in Section 4.13.3, provides a summary of the existing conditions level of service results. TRAFFIX analysis software program, which uses the 2000 HCM methodologies, was used to determine the level of service for Existing Conditions during the AM and PM peak hour at each of the study intersections. The level of service calculation sheets are included in Appendix D of the Draft EIR.

All study intersections currently operate at an acceptable level of service except for the intersection of Park Avenue and Kennedy Drive which operates at an unacceptable LOS E during both the AM and PM peak hours

Existing Transit Service

Bus transit and paratransit (persons with disabilities) service in Capitola is provided by Santa Cruz Metropolitan Transit (Metro). Metro serves all of Santa Cruz County and the cities of Scotts Valley, Santa Cruz, Capitola, and Watsonville. Additionally, Metro partners with the Regional Transportation Commission (SCCRTC), the Association of Monterey Bay Area Governments (AMBAG), UC Santa Cruz Transportation and Parking Services (TAPS), and the Santa Clara Valley Transportation Authority (VTA) in overall transportation improvement planning and transit services.

As shown in Figure 4.13-4, there are ten Metro transit lines that service Capitola. With the exception of Line 91x, all public transit lines stop at the Capitola Mall which serves as the primary mid-county transit hub. Three bus lines (53, 54, and 55) also serve Capitola Village.

Existing Pedestrian and Bicycle Circulation

Pedestrian Circulation

In July 2010, the Pedestrian Safety Work Group (a subcommittee of the Santa Cruz County Regional Transportation Commission's Elderly & Disabled Transportation Advisory Committee) published a report entitled "Improving the Safety and Accessibility of Sidewalks in Santa Cruz County." The goal of the report is to improve the condition of sidewalks throughout all jurisdictions in Santa Cruz County by evaluating current sidewalk maintenance program practices, identifying important potential program components, and offering additional resources. The objective is to support jurisdictions in their efforts to achieve, within defined periods of time, sidewalk networks that are in compliance with jurisdiction standards for maintenance.



Source: Santa Cruz METRO and RBF Consusting 2013

Figure 4.13-4 Existing Transit Network

Capitola has about 26 miles of roadways, of which about 50 percent have sidewalks. The City relies on the State Streets and Highways Code, which requires property owners to maintain sidewalks fronting their property, with the exception of some sidewalks in the Village.

As shown in Figure 4.13-5, there are many areas throughout Capitola that do not have adequate or complete sidewalk facilities. Most notably, this includes a variety of streets east of 41st Avenue and west of Wharf Road, a small neighborhood west of 41st Avenue and north of Clares Street (Deanes Lane and associated streets), various streets north and south of Bay Avenue, the residential neighborhood north of Capitola Village, a portion of Park Avenue, and the associated residential streets north of Park Avenue along McCormick Avenue.

While only approximately 50 percent of the Capitola streets have sidewalks, a significant majority of the collector and arterial streets do have sidewalks. This is notable given the fact that traffic travels at higher speeds on these roadways making sidewalks essential. On residential streets, cars travel more slowly, providing an opportunity for shared use of the roadway. For example, in the City of Carmel residential neighborhoods are considered very walkable and yet have no sidewalks. This is due in part to the narrow streets, which helps considerably in maintaining slow vehicular speeds (i.e., less than 25 miles per hour (mph)).

As discussed below, the development of "Complete Streets" in Capitola that allow for all users to effectively travel by motor vehicle, foot, bicycle and transit, will be an essential policy issue that will be addressed in the General Plan update.

Bicycle Circulation

In February 2011, Capitola adopted an updated Bicycle Transportation Plan (BTP). The BTP sets goals and objectives for the purpose of increasing the safety and convenience of bicycle commuting in and around Capitola. It also implements the policies and programs of the Circulation Element of the Capitola General Plan.

In 2000, roughly one third of all commuters in Capitola had a less than 15 minute trip to work, which suggests that the distance traveled was likely less than 9 miles if driving at 35 mph, 2.5 miles if bicycling, or 1.25 miles if walking. All of these trips are achievable on a bicycle in less than one hour. By breaking down barriers to bicycle commuting, especially to those who live within 9 miles of work, the BTP identifies ways to improve bike ridership and achieve the BTP's goal of 5 percent of total trips and 20 percent of commuter trips by bicycle by year 2020.

The BTP identifies a number of existing and proposed bikeways for Capitola, as shown in Figure 4.13-6.

"Bikeway" is a general term used to refer to facilities that primarily provide for bicycle travel. The Caltrans Bikeway Planning and Design section (Chapter 1000 of the State of California Highway Design Manual) categorizes bikeways into three types:

- Class I Bikeways are generally referred to as Bike Paths and provide a completely separated right-of-way for the exclusive use of bicycle and pedestrian traffic with cross-flow minimized.
- Class II Bikeways are referred to as Bike Lanes and provide a striped lane for one-way bike travel on a street or highway, and typically includes signs placed along the street segment.



Source: Santa Cruz METRO and RBF ConsusIting 2013



Source: City of Capitola and RBF Consusting 2013

Figure 4.13-6 Existing Bicycle Facilities

Class III Bikeways are referred to as Bike Routes and provide a shared use with pedestrian or motor vehicle traffic. Typically these facilities are city streets with signage designating the segment for Bike Routes without additional striping or facilities. "Sharrows" are signed and painted bike routes that share the road with other vehicles.

Aviation Activity

There are no airports in Capitola. The closest airport is the Watsonville Municipal Airport, a public airport in Watsonville located approximately 8 miles to the southeast of Capitola.

4.13.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the proposed Plan would have a significant impact with regard to transportation and traffic if it would:

- 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.
- 2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- 3. 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.
- 4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- 5. Result in inadequate emergency access.
- 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.

Caltrans Level of Service Standards

The proposed Plan would have a significant effect within the jurisdiction of Caltrans if it would:

- Result in a level of service lower than the transition between LOS C and LOS D; or
- Add new trips to an intersection that is already operating at LOS F.

City of Capitola Level of Service Standards

The proposed Plan would maintain a minimum LOS C or better, with the exception of the Village area, Bay Avenue, and 41st Avenue where LOS D is the minimum acceptable standard.

4.13.3 ENVIRONMENTAL IMPACT DISCUSSION

TRANS-1 Implementation of the proposed Plan would cause intersection operation to degrade to an unacceptable level of service at four study intersections in 2035.

As described above, the City of Capitola and Caltrans have established vehicular level of service standards for intersection performance. RBF Consulting modeled future traffic conditions under the proposed Plan in 2035 in order to evaluate impacts with respect to established standards.

Traffic impacts of the proposed Plan were determined using AMBAG's regional travel demand forecasting model. The model derives traffic generation based on various land use categories and trip purposes. Trip purposes represent different kinds of trips, each with their own particular characteristics and propensity for travel short or long distances. For example, a person making a home-based-shop trip between their home and a shopping center is likely to travel a much shorter distance than for a home-based-work trip. Model trip generation is performed with algorithms that reflect income levels, auto ownership, persons per household, and other socio-economic factors. The model's trip generation is "calibrated" to match local conditions. The AMBAG model meets professional standards for calibration.

The traffic analysis assumed that the transportation network, including roadways and intersection lane configurations would be the same in 2035 as existing conditions. New development over 2010 baseline conditions projected within the Plan Area at buildout, including a net increase of approximately 280 residents, 80 housing units, and 1,200 jobs, was input to the AMBAG model to generate 2035 traffic forecasts. Table 4.13-4 summarizes the number of peak hour vehicles trips estimated by the model under existing conditions and with the proposed Plan. The resulting year 2035 peak hour traffic volumes are shown in Figure 4.13-7.

2010 Existing Conditions		2035 Proposed Plan Buildout			2010 to 2035 Change in Citywide Trip Generation			
Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour
96,946	7,652	7,642	121,908	9,351	9,492	+24,962	+1,699	+1,850

TABLE 4.13-4 CITYWIDE PEAK HOUR VEHICLE TRIP GENERATION

Source: RBF Consulting, 2013 and AMBAG Travel Demand Forecasting Model.

The TRAFFIX model was then used to determine intersection level of service in 2035. Table 4.13-5 shows the results of the level of service analysis, with a comparison of existing conditions (2010) level of service and proposed Plan buildout (2035) level of service. As shown, the following study intersections would operate at unacceptable level of service in 2035 with buildout of the proposed Plan. All other study intersections would continue to operate at acceptable levels of service under the proposed Plan buildout conditions in 2035:



Source: RBF ConsusIting 2013

Figure 4.13-7 Proposed Plan Buildout (Year 2035) AM and PM Peak Hour Traffic Volumes

					Existing		2035 Proposed Plan Buildout	
		Existing	LOS		Average		Average	
#	Intersection	Control	Standard	Peak Hour	Delay ^a	LOS	Delay ^a	LOS
1	41st Ave and Highway 1 NP Damps	Signal	D	AM	17.6	В	17.9	В
I	41 th Ave and highway 1 No Kanips	Sigilai	D ·	PM	18.2	В	20.4	С
ົ າ	41 st Ave and Highway 1 SB Ramps	Cianal	D	AM	13.0	В	17.9	В
Ζ		Siyilai	U ·	PM	6.3	А	24.3	С
2	A1st Ave and Cross Dd	Signal	D	AM	18.7	В	20.8	С
3	41 st Ave allu Gloss Ru	Signal	D	PM	25.0	С	24.9	С
4	41st Ave and Clares St	Signal	D	AM	25.2	С	25.2	С
4				PM	30.7	С	33.0	С
E	41st Ave and Capitola Rd	Signal	D	AM	20.3	С	22.6	С
C				PM	24.0	С	26.2	С
6	41st Ave and Brommer St / Jade St	Signal	D	AM	18.9	В	19.2	В
0				PM	21.2	С	23.8	С
7	Clares St and Capitola Rd	Signal	C	AM	15.0	В	13.8	В
1			C	PM	23.6	С	26.2	С
Q	Wharf Rd and Clares St	AWSC	С	AM	11.4	В	12.2	В
0				PM	23.9	С	24.6	С
0	10th Avia and Capitala Dd	AWSC	С	AM	11.0	В	16.6	С
7	49" Ave and Capitola Ku			PM	18.4	С	24.8	С
10	Wharf Pd and Cliff Dr / Stockton Avo	AWSC	D	AM	17.3	С	22.6	С
10				PM	24.6	С	56.1	F
11	Portor St and Highway 1 NR Pamps	Signal		AM	20.5	С	62.1	E
11	FUITER ST AND FIGHTWAY I NO RAINPS	Siyrial	U	PM	22.6	С	43.0	D

TABLE 4.13-5EXISTING AND PROJECT 2035 INTERSECTION LEVELS OF SERVICE

					Existing		2035 Proposed Plan Buildout	
#	Intersection	Existing Control	LOS Standard	Peak Hour	Average Delay ^a	LOS	Average Delay ^a	LOS
10	Dev Ave and History 1 CD Demos	Cianal	D	AM	20.1	С	21.6	С
12	Bay Ave and Highway I SB Ramps	Signal	D -	PM	20.2	С	35.4	D
10	Day Ave and Hill St	A)M(C)	C ·	AM	14.8	В	17.4	С
15	bay Ave and him St	AWSC		PM	17.6	С	26.1	D
11	Capitola Avo and Pay Avo		E	AM	12.6	В	14.3	В
14	Capitola Ave and Bay Ave	AWSC		PM	14.3	В	26.3	D
15	Monteroy Ave and Pay Ave	AWSC	E	AM	9.4	А	10.3	В
10	Nonteley Ave and day Ave			PM	10.3	В	12.7	В
14	Montoroy Ave and Dark Ave	AWSC	E	AM	12.1	В	29.8	D
10	Monteley Ave and Park Ave			PM	18.7	С	60.7	F
17	Capitala Ava and Stackton Ava	AWSC	E	AM	19.6	С	27.9	D
17	Capitola Ave and Stockton Ave			PM	22.1	С	36.9	Е
10	Montoroy Ave and Capitela Ave	AWSC	E	AM	11.7	В	13.9	В
10	Nonterey Ave and Capitola Ave			PM	19.7	С	25.4	D
10	Dark Ave and Highway 1 NP Dampe	Signal	С	AM	16.5	В	29.8	С
19	Park Ave and highway i no kanips			PM	18.0	В	21.7	С
20	Dark Ave and Highway 1 SD Damps	Signal	C	AM	20.0	В	20.4	С
20	Park Ave and highway I SD Ramps	Siyilal	U	PM	16.8	В	34.2	С
01	Dark Ave and Kennedy Dr	Signal	С	AM	46.1	E	>100	F
21	Paik Ave and Kenneuy Di			PM	41.7	E	>100	F

TABLE 4.13-5 EXISTING AND PROJECT 2035 INTERSECTION LEVELS OF SERVICE

Note: Significantly impacted intersections are shown in **bold**.

a. At signalized intersections, the delay reported is the average delay experienced by all approaches to the intersection and at unsignalized intersections, the delay reported is the worst delay experienced by the minor street approach.

b. AWSC = All Way Stop Control.

c. Warrant based on California MUTCD Warrant 3.

Source: RBF Consulting, 2013.

- Intersection #10: Wharf Road and Cliff Drive/Stockton Avenue (PM peak hour LOS F, Average Delay = 53.2 seconds)
- Intersection #11: Porter Street and Highway 1 NB Ramps (AM peak hour LOS E, average delay = 62.1 seconds)
- Intersection #16: Monterey Avenue and Park Avenue (PM peak hour LOS E, average delay = 55.8 seconds)
- Intersection #17: Capitola Avenue and Stockton Avenue (PM peak hour LOS E, average delay = 36.9 seconds)
- Intersection #21: Park Avenue and Kennedy Drive (AM and PM peak hour LOS F, average delay greater than 100 seconds)

In addition to the improvements at intersections forecast to operate at an unacceptable level of service, the City of Capitola has identified the construction of a roundabout as a possible alternative at the intersection of Bay Avenue and Capitola Avenue to help alleviate congestion and improve safety. This intersection is on a skew angle, which increases crosswalk distances for pedestrians, and crossing distances for bicycles and vehicles. It also results in high perception-reaction time from drivers, which adds to the delay at the intersection and extensive vehicle queues. The proposed Plan includes the following action in regards to the improvement of the intersection of Bay Avenue and Capitola Avenue:

Action MO-4.1 Bay Avenue Roundabout. Prepare a study and conduct outreach with business stakeholders and the public to evaluate the feasibility of constructing a roundabout at the intersection of Bay Avenue and Capitola Avenue. (Responsibility: Community Development, Public Works)

Table 4.13-6 shows improvements identified in the proposed Plan that once implemented would remedy the deficiencies at the impacted intersections identified above.

Implementation of the improvements identified above would provide acceptable level of service operations and reduce the proposed Plan traffic impacts to a less-than-significant level at the following intersections:

- Intersection #10: Wharf Road and Stockton Avenue
- Intersection #14: Capitola Avenue and Bay Avenue
- Intersection #16: Monterey Avenue and Park Avenue
- Intersection #17: Stockton Avenue and Capitola Avenue
- Intersection #21: Park Avenue and Kennedy Drive

The intersection of Porter Street and Highway 1 NB Ramps is under Caltrans jurisdiction; therefore, implementation of improvements at this intersection is outside the jurisdiction of the City of Capitola. Since implementation of the identified improvement necessary to mitigate the impact to a less than significant level cannot be guaranteed, and may be considered infeasible by Caltrans, the impact is considered significant and unavoidable. The Caltrans Highway 1 HOV Lane Widening Project proposes to reconstruct this interchange and install ramp metering; however, these improvements have not been finalized at the time of writing this report. Thus, it cannot be reasonably concluded that the impact at the Porter Street and Highway 1 NB (northbound)

Intersection	Projected LOS in 2035 Without Improvement	Improvement Needed ^b	Projected LOS in 2035 After Improvement	Lead Agency	Constraints
#10. Wharf Road and Stockton Avenue	LOS F PM Peak Hour	Construct Traffic Signal or Roundabout	LOS B	City of Capitola	Right-of-way and skewed north and south leg alignment
#11. Porter Street and Highway 1 NB Ramps	LOS E AM Peak Hour	Construct an additional right turn lane in addition to the shared through- right lane on the Highway 1 northbound off-ramp at Porter Street.	LOS C	Caltrans	Coordination with Caltrans would be required
#14. Capitola Ave and Bay Avenue	LOS D ^a PM Peak Hour	Construct Roundabout	LOS B	City of Capitola	Skewed intersection alignment and some right-of-way acquisition may be required.
#16. Monterey Avenue and Park Avenue	LOS F PM Peak Hour	Construct Traffic Signal or Roundabout	LOS C	City of Capitola	Some right-of-way acquisition may be required.
#17. Stockton Avenue and Capitola Avenue	LOS E PM Peak Hour	Construct Traffic Signal	LOS C	City of Capitola	Some right-of-way acquisition may be required.
#21. Park Avenue and Kennedy Drive	LOS F AM/ PM Peak Hour	Construct Traffic Signal	LOS C	City of Capitola	Some right-of-way acquisition may be required.

TABLE 4.13-6 PLANNED CAPITOLA ROADWAY IMPROVEMENTS

a. The intersection of Capitola Ave / Bay Ave operates at an acceptable LOS D during 2035 conditions; however the City of Capitola has identified a need for improvement to this intersection.

b. Warrant based on California MUTCD Warrant 3.

Source: RBF Consulting 2013

Ramps intersection associated with implementation of the proposed Plan would be reduced to less-than-significant levels with the Caltrans Highway 1 HOV Lane Widening Project.

The proposed Plan contains multiple implementing actions that identify mechanisms for mitigating transportation impacts for new construction. Specifically, Policy MO-3.5 and Action MO-3.4 provide for the development of a citywide Transportation Mitigation Fee program. The traffic impact fee program would require new development within the City of Capitola to pay its appropriate fair share of costs of future planned improvements. As such, the City should prepare a fee study to determine the appropriate fair share costs, also known as "fair share contribution," of improvements needed to accommodate the development when considered in the context of a Complete Streets transportation system.

 Policy MO-3.5 Impact Fees. Require new development to pay its appropriate fair share of costs for future planned transportation improvements.

Action MO-3.4 Impact Fees. Prepare and implement a transportation impact fee program in the City of Capitola to ensure that new development pays its appropriate fair share of the costs, also known as "fair share contribution," of improvements needed to accommodate the development when considered in the context of a Complete Streets transportation system. (Responsibility: Public Works)

Additionally, the proposed Plan includes the following goals, policies, and actions that would reduce impacts on the transportation network through a series of efforts to reduce single occupancy vehicle trips, improve circulation throughout Capitola, and promote walking, bicycling and transit trips as viable transportation options:

- Goal MO-1. Provide a balanced multi-modal transportation system that enhances mobility in a sustainable manner.
- Policy MO-1.1 Responsive Transportation Services. Promote multi-modal transportation services and facilities that are responsive to the needs of residents, businesses, and visitors.
- Policy MO-1.2 Reduced Vehicle Trips. Encourage transportation strategies that reduce vehicular trips and air pollution, and promote energy conservation.
- Policy MO-1.3 Regional Collaboration. Support regional efforts to increase alternatives to infrastructure, which reduce single occupant vehicle trips, conserve energy, and reduce air pollution.
- Policy MO-1.4 Highway 1 Capacity. Support regional efforts to increase the capacity of Highway 1 to accommodate future forecasted traffic demands, including the proposed Highway 1 high-occupancy vehicle (HOV) project.
- Action MO-1.1 Funding. Work with the Santa Cruz County Regional Transportation Commission (RTC), Santa Cruz County, Caltrans, and other relevant organizations to seek funding in support of local mobility improvement projects. (Responsibility: Community Development, Public Works)
- Action MO-1.2 Regional Plan Implementation. Participate with Santa Cruz County Regional Transportation Commission (RTC), the Association of Monterey Bay Area Governments (AMBAG), and Santa Cruz County to create and implement programs that coordinate the multi-modal transportation needs and requirements across jurisdictions, including but not limited to the Regional Transportation Plan, the Metropolitan Transportation Plan, and the Monterey Bay Sanctuary Scenic Trail Master Plan. (Responsibility: Community Development, Public Works)
- Action MO-1.3 Highway 1 Crossings. Coordinate with Caltrans to create improvements to the Highway 1 over- and under-passes in Capitola including roadway configuration, signal timing, and pedestrian/bike safety and access. (Responsibility: Community Development, Public Works)
- Goal MO-2. Provide for "Complete Streets" that serve all modes of transportation, including vehicles, public transit, bicyclists, and pedestrians.
- Policy MO-2.1 Complete Streets. Support projects, programs, policies, and regulations to maintain a balanced multi-modal transportation network that meets the needs of all users of local roadways in a manner that is suitable to the scale and character of Capitola.

- Policy MO-2.6 Non-Motorized Connectivity. Focus Complete Street improvements on primary connections from residential areas to schools, parks and recreation uses, civic uses, and community-serving commercial areas.
- Goal MO-3. Provide a roadway system that enhances mobility and protects residential neighborhoods.
- Policy MO-3.1 Arterial Streets. Actively discourage diversion of traffic to local streets by maintaining maximum capacity on arterial streets and locating high traffic-generating uses on arterial streets.
- Policy MO-3.2 Street Widening. Whenever possible, implement solutions that improve the efficiency of the arterial system without major widening.
- Policy MO-3.3 Level of Service Standard. Continue to maintain the established level of service C or better at intersections throughout Capitola, with the exception of the Village area, Bay Avenue, and 41st Avenue.
- Policy MO-3.4 Reduced Standards. Accept a lower level of service and higher congestion at major regional intersections if necessary improvements are considered infeasible, as determined by the Public Works Director, or result in significant, unacceptable environmental impacts.
- Action MO-3.1 Neighborhood Traffic. Monitor traffic volumes and vehicle speeds on local streets in
 residential neighborhoods as new development is proposed or as deemed necessary due to increased traffic
 volumes. Consider installing traffic calming measures if cut-through traffic increases as a result of adjacent
 development. (Responsibility: Public Works)
- Action MO-3.2 Signal Timing. Update and maintain coordinated signal timing on traffic corridors, particularly on 41st Avenue. (Responsibility: Public Works)
- Action MO-3.3 Traffic Monitoring. Monitor traffic as new development is proposed or when increased traffic volumes are observed to ensure that planned improvements are scheduled prior to deterioration of level of service below the desired standard. (Responsibility: Public Works)
- Action MO-3.5 Financing. Finance circulation system improvements by using local revenues as a match to leverage federal and State funds. (Responsibility: Public Works)
- Goal MO-4. Provide a roadway system that enhances community aesthetics and promotes a high quality of life.
- Goal MO-6. Enhance access to and mobility within Capitola Village.
- Policy MO-6.1 Traffic Congestion. Reduce traffic congestion on roadways within the Village, particularly during peak summer times.
- Policy MO-6.2 Parking Supply. Increase the supply of parking to serve the Village. Additional parking should be provided in locations that minimize traffic congestion in the Village, yet are within close proximity of the Village core. A new parking structure on the Pacific Cove site could provide needed additional parking.
- Policy MO-6.3 Signage. Provide signage that effectively directs motorists to available parking serving the Village.
- Policy MO-6.4 Balanced Parking Approach. Maintain a balanced approach to parking in the Village that addresses the parking needs of residents, merchants, and visitors.

- Policy MO-6.5 Transportation Alternatives. Encourage visitors to enter the Village using non-automotive modes of transportation, including by walking, biking, and taking public transit.
- Policy MO-6.6 Bicycle and Pedestrian Connections. Enhance bicycle and pedestrian connections to the Village from surrounding residential neighborhoods and commercial areas.
- Policy MO-6.7 General Environment. Maintain an environment within the Village that prioritizes the safety and convenience of pedestrians and bicyclists.

Applicable Regulations:

- City of Capitola level of service standards
- Caltrans level of service standards

Significance Before Mitigation: Significant.

TRANS-2 The proposed Plan would not result in a change in air traffic patterns including either an increase in traffic levels of a change in locations that results in substantial safety risks.

Implementation of the proposed Plan would not result in substantial safety risks due to changes in air traffic levels. Due to the nature and scope of the proposed Plan, its implementation would not have the potential to result in a change in air traffic patterns at any airports in the area. The proposed Plan would not require any change in air traffic patterns and, therefore, this impact would be *less than significant*.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

TRANS-3The proposed Plan would not substantially increase hazards due to a design feature (e.g.,
sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Implementation of the proposed Plan would not increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. None of the transportation system improvements proposed in the Plan would introduce new safety hazards at intersections or along roadway segments. Future development under the proposed Plan would be subject to the design and safety standards specified in the Capitola Municipal Code, the State Building Code, and the State-referenced provisions of the International Fire Code. As discussed in Section 4.13.1.1, Regulatory Framework, these codes contain regulations pertaining to minimum design standards for characteristics such as street width, intersection design, and acceptable street grades. As with current practice, future roadways would be designed and reviewed in consultation with the Capitola City Engineer to determine their compliance with these various codes and regulations in regards to ensuring user safety.

The proposed Plan also includes the following policies and actions that are intended to promote safe vehicular, pedestrian, and bicycle circulation:

- Policy MO-2.2 Design Standards. Follow accepted or adopted design standards when implementing improvements intended to fulfill the Complete Streets policy. Consider innovative or non-traditional design options where a comparable level of safety for users is provided.
- Policy MO-2.3 Community Context. Support Complete Street improvements that fit within the context of the community and address unique conditions within Capitola.
- Action MO-2.1 Complete Street Standards. Develop a set of minimum and preferred Complete Streets standards that can be referenced when retrofitting existing roadways. (Responsibility: Community Development, Public Works)
- Policy MO-4.2 Standards. Require streets to be dedicated and improved in accordance with the adopted street standards. Any modifications from these standards shall require approval by the Public Works Director and Planning Commission.
- Policy MO-4.4 Driveways. Where appropriate and feasible, combine driveways serving small parcels to permit safer merging.
- Policy MO-4.6 Traffic Calming. Consider using traffic calming measures on local and collector streets, such as narrow street openings, turning prohibitions, one-way streets, landscaping, etc. to improve vehicular and nonvehicular traffic safety and enhance the aesthetic character of Capitola's neighborhoods.
- Policy MO-8.6 Curb Cuts and Driveways. Minimize the frequency of curb cuts and driveways intersecting bicycle facilities.
- Action MO-8.4 Intersection Standards. Establish City standards for intersection improvements, including front queuing zones, painted sharrow lanes, and bike detection signal systems, that are appropriate to detect and accommodate bicycles and their safe movement. (Responsibility: Community Development, Public Works)
- Action MO-8.5 Highway 1 Interchanges. Work with Caltrans to ensure that any future modifications to Highway 1 interchanges in Capitola improve safety and convenience for bicyclists.
- Action MO-9.2 Obstacles and Obstructions. Identify and inventory significant obstacles and obstructions, such as utility poles, traffic signal control boxes, overgrown vegetation, and root damage, on sidewalks in Capitola. Eliminate or mitigate these obstacles and obstructions as funding becomes available. (Responsibility: Public Works)

Compliance with the applicable standards described above and implementation of the proposed Plan policies would ensure that roadway hazard impacts under the Plan would be *less than significant*.

Applicable Regulations:

- California Building Code
- City of Capitola Municipal Code, Chapter 12 Streets, Sidewalks, and Public Places

Significance Before Mitigation: Less than significant.

TRANS-4 Implementation of the proposed Plan would not result in inadequate emergency access.

Future developments under the proposed Plan would be subject to the design and emergency standards specified in the Capitola Municipal Code, the State Building Code, and the State-referenced provisions of the International Fire Code. As discussed in Section 4.13.1.1, Regulatory Framework, these codes contain regulations pertaining to minimum design standards for characteristics such as street width, intersection design, and acceptable street grades. As with current practice, future roadways would be designed and reviewed in consultation with the Capitola City Engineer to determine their compliance with these various codes and regulations in regard to ensuring adequate emergency access.

The proposed Plan also includes the following policy and actions that are intended to ensure adequate emergency access and efficient circulation, including:

- Action SN-2.2 Transportation Infrastructure. Work with Caltrans, the Santa Cruz County Regional Transportation Commission, and other relevant agencies to ensure the seismic safety and structural integrity of all bridges and overpasses in Capitola.
- Action SN-3.3 Emergency Access. Coordinate with public safety providers to implement feasible improvements and/or access plans for roadways with identified fire and emergency access deficiencies.
- Policy MO-2.1 Complete Streets. Support projects, programs, policies, and regulations to maintain a balanced multi-modal transportation network that meets the needs of all users of local roadways in a manner that is suitable to the scale and character of Capitola.

Compliance with applicable standards described above and implementation of the proposed Plan policy and actions would ensure than emergency access-related impacts under the Plan would be *less than significant*.

Applicable Regulations:

- California Building Code
- City of Capitola Municipal Code, Chapter 12 Streets, Sidewalks, and Public Places

Significance Before Mitigation: Less than significant.

TRANS-5 Implementation of the proposed Plan would not conflict with adopted policies, plans, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

California AB 1358, the Complete Streets Act, requires cities to ensure that local streets meet the needs of all users, when updating their general plans. Additionally, the proposed Plan seeks to provide a balanced multi-modal transportation system that enhances mobility in a sustainable manner and to provide safe mobility for all users

appropriate to the function and context of the facility. The proposed Plan includes the following goals, policies, and actions that support AB 1358:

- Goal MO-1. Provide a balanced multi-modal transportation system that enhances mobility in a sustainable manner.
- Policy MO-1.1 Responsive Transportation Services. Promote multi-modal transportation services and facilities that are responsive to the needs of residents, businesses, and visitors.
- Goal MO-2. Provide for "Complete Streets" that serve all modes of transportation, including vehicles, public transit, bicyclists, and pedestrians.
- Policy MO-2.1 Complete Streets. Support projects, programs, policies, and regulations to maintain a balanced multi-modal transportation network that meets the needs of all users of local roadways in a manner that is suitable to the scale and character of Capitola.
- Policy MO-2.2 Design Standards. Follow accepted or adopted design standards when implementing improvements intended to fulfill the Complete Streets policy. Consider innovative or non-traditional design options where a comparable level of safety for users is provided.
- Policy MO-2.3 Community Context. Support Complete Street improvements that fit within the context of the community and address unique conditions within Capitola.
- Policy MO-2.4 Maintenance. Accommodate bicycling, walking, and public transit as a routine part of the City's maintenance of roadways in Capitola.
- Policy MO-2.5 Existing Rights-of-Way. Support opportunities to repurpose existing rights-of-way or create new rights-of-way to enhance connectivity for pedestrians, bicyclists, and transit.
- Policy MO-2.6 Non-Motorized Connectivity. Focus Complete Street improvements on primary connections from residential areas to schools, parks and recreation uses, civic uses, and community-serving commercial areas.
- Policy MO-2.7 Exceptions. Provide facilities for all users in the construction, reconstruction, retrofit, repaying, and rehabilitation of City streets, except under one or more of the following conditions:
 - The costs of providing accommodation are excessively disproportionate to the need or probable use; or
 - The existing and planned population, employment densities, traffic volumes, or level of transit service around a particular roadway, as confirmed by the Public Works Director, is so low that future expected users of the roadway will not include pedestrians, public transportation, freight vehicles, or bicyclists.

Where exceptions occur for both City and private projects, documentation shall be publicly available and subject to review and approval by the Public Works Director.

 Action MO-2.1 Complete Street Standards. Develop a set of minimum and preferred Complete Streets standards that can be referenced when retrofitting existing roadways. (Responsibility: Community Development, Public Works)

- Action MO-2.2 Capital Improvement Program. Incorporate Complete Streets projects as part of the City's annual Capital Improvements Program update. (Responsibility: Community Development, Public Works, Finance)
- Action MO-2.3 Dedications. Establish by local ordinance the ability to require a dedication or irrevocable offer of dedication of real property for streets, alleys, and additional land as may be necessary to provide bicycle paths and/or local transit facilities, consistent with the provisions of the Subdivision Map Act or as otherwise allowed under State law. (Responsibility: Community Development, Public Works)
- Action MO-2.4 Safe Routes to Schools. Establish a Safe Routes to School Program and work with local schools to make improvements that promote safe walking and bicycling to schools that serve Capitola residents. (Responsibility: Public Works)
- Policy MO-6.5 Transportation Alternatives. Encourage visitors to enter the Village using non-automotive modes of transportation, including by walking, biking, and taking public transit.
- Policy MO-7.2 Transit-Friendly Development. Encourage new development to be located and designed to support increased use of public transportation.
- Policy MO-7.3 Visitors. Support efforts to increase the ability for visitors to travel to Capitola by public transportation.
- Policy MO-7.7 Paratransit. Support paratransit alternatives such as the Santa Cruz METRO Paracruz program to ensure that public transportation in the City is responsive to the needs of the young, aged, handicapped, and disadvantaged.
- Action MO-7.3 Bus Stops. Improve existing bus stops to provide a safe and convenient access consistent with Santa Cruz METRO design standards. (Responsibility: Public Works)
- Goal MO-9. Provide high quality pedestrian facilities that support walking and the enjoyment of the outdoors in Capitola.
- Policy MO-9.1 Sidewalks. Maintain a complete system of sidewalks to provide for safe, attractive, and convenient pedestrian circulation in Capitola.
- Policy MO-9.2 Pathways. Maintain and improve pedestrian pathways in Capitola, particularly pathways
 providing pedestrian access to natural areas and scenic vistas.
- Policy MO-9.3 Priority Investment. Prioritize pedestrian facility improvements that address public safety concerns, complete gaps in the existing pedestrian circulation system, and enhance pedestrian mobility in highuse areas.
- Policy MO-9.4 Development Projects. Require new development to enhance pedestrian circulation through site and building design and the provision of pedestrian amenities.
- Action MO-9.1 Funding. Seek funding to expand and improve sidewalks, pathways, and other pedestrian facilities in Capitola.
- Action MO-9.2 Obstacles and Obstructions. Identify and inventory significant obstacles and obstructions, such as utility poles, traffic signal control boxes, overgrown vegetation, and root damage, on sidewalks in

Capitola. Eliminate or mitigate these obstacles and obstructions as funding becomes available. (Responsibility: Public Works)

- Action MO-9.3 Capital Improvement Plan. Include and address sidewalk improvements in the Capital Improvements Program. (Responsibility: Public Works)
- Action MO-9.4 Maintenance. Continue the City's sidewalk maintenance program to ensure that sidewalks are adequately maintained and free of obstructions. (Responsibility: Public Works)

The City of Capitola adopted an updated Bicycle Transportation Plan (BTP) in 2011. The BTP sets goals and objectives for the purpose of increasing the safety and convenience of bicycle commuting in and around Capitola. It also implements the policies and programs of the Circulation Element of the Capitola General Plan. The proposed Plan contains the following policies and actions that support the bicycle network and associated facilities, including:

- Policy MO-6.6 Bicycle and Pedestrian Connections. Enhance bicycle and pedestrian connections to the Village from surrounding residential neighborhoods and commercial areas.
- Policy MO-6.7 General Environment. Maintain an environment within the Village that prioritizes the safety and convenience of pedestrians and bicyclists.
- Action MO-6.3 Bicycle Parking. Install additional bicycle parking (e.g., bike racks/bike boxes) in the Village to accommodate seasonal demand and special events. (Responsibility: Community Development, Public Works)
- Goal MO-7. Improve and expand public transportation services for residents, workers, and visitors.
- Goal MO-8. Provide a complete network of bikeways and bicycle facilities in Capitola.
- Policy MO-8.1 Bicycle Transportation Plan. Construct and maintain bikeways consistent with the Capitola Bicycle Transportation Plan.
- Policy MO-8.2 Regional System. Ensure that the bikeways in Capitola are well integrated with existing and proposed regional bikeways in Santa Cruz County.
- Policy MO-8.3 All Users. Ensure that bikeways in Capitola are safe and convenient for bicyclists of all ages and abilities.
- Policy MO-8.4 Safety. Improve public safety by minimizing conflicts between bicyclists and motor vehicles on Capitola's roadways.
- Policy MO-8.5 Development Projects. Encourage new development to provide bicycle amenities, such as bicycle racks, lockers, and showers for employees, which support commuting by bicycle.
- Policy MO-8.6 Curb Cuts and Driveways. Minimize the frequency of curb cuts and driveways intersecting bicycle facilities.
- Action MO-8.1 Bicycle Transportation Plan. Maintain and update the Capitola Bicycle Transportation Plan as necessary.

- Action MO-8.2 Capital Improvement Program. Incorporate projects identified in Capitola's Bicycle Transportation Plan into the City's Capital Improvement Program. (Responsibility: Community Development, Public Works, Finance)
- Action MO-8.3 Bicycle Connections. Actively participate in efforts to implement new bicycle pathways in Capitola identified in the Monterey Bay Sanctuary Scenic Trail Plan. (Responsibility: Public Works)
- Action MO-8.4 Intersection Standards. Establish City standards for intersection improvements, including front queuing zones, painted sharrow lanes, and bike detection signal systems, that are appropriate to detect and accommodate bicycles and their safe movement. (Responsibility: Community Development, Public Works)
- Action MO-8.5 Highway 1 Interchanges. Work with Caltrans to ensure that any future modifications to Highway 1 interchanges in Capitola improve safety and convenience for bicyclists.

Applicable Regulations:

- California Complete Streets Act of 2008 (AB 1358)
- City of Capitola Bicycle Transportation Plan (BTP)
- City of Capitola Municipal Code, Chapter 12 Streets, Sidewalks, and Public Places

The proposed Plan would not conflict with adopted plans, policies, or programs related to public transit, bicycle, or pedestrian facilities and impacts will be *less than significant*.

Significance Before Mitigation: Less than significant.

4.13.4 CUMULATIVE IMPACT DISCUSSION

TRANS-6 Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable project, would result in additional cumulatively considerable impacts.

The analysis of the proposed Plan addresses cumulative impacts to the transportation network in the City of Capitola. Projected 2035 traffic impacts at Plan buildout were calculated using data from AMBAG Travel Demand Forecast model, which incorporates county and regional growth projections from AMBAG. This data was adjusted to account for growth in Capitola under the proposed Plan.

Implementation of the proposed Plan would result in significant impacts at five of the study intersections. Improvements have been identified which would provide acceptable Level of service operations and reduce the proposed Plan traffic impacts to a less-than-significant level at all of the intersections with the exception of the Porter Street and Highway 1 NB Ramps. The intersection of Porter Street and Highway 1 NB Ramps is under Caltrans jurisdiction; therefore, implementation of improvements at this intersection is outside the jurisdiction of the City of Capitola. Since implementation of the identified improvement necessary to mitigate the impact to a less-than-significant level cannot be guaranteed, and may be considered infeasible by Caltrans, the impact is considered significant and unavoidable. Although the Caltrans Highway 1 HOV Lane Widening Project proposes

to reconstruct this interchange and install ramp metering, these improvements have not been finalized at the time of writing this report. Thus, it cannot be reasonably concluded that the impact at the Porter Street and Highway 1 NB Ramps intersection associated with implementation of the proposed Plan would be reduced to less-thansignificant levels with the Caltrans Highway 1 HOV Lane Widening Project. Cumulative impacts to transportation and traffic resulting from implementation of the proposed Plan are addressed locally, through specific road improvements, as well as through implementation of the goals, policies, and actions of the proposed Plan itself. The Plan's policies seek to reduce existing vehicle trips, minimize the addition of new vehicle trips, and lower per capita VMT. However, implementation of the proposed Plan, in combination with cumulative projects, would result in a significant and unavoidable impact at the Porter Street and Highway 1 NB Ramps intersection.

Applicable Regulations:

- City of Capitola level of service standards
- Caltrans level of service standards

Significance Before Mitigation: Significant.

4.13.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

TRANS-1 Implementation of the proposed Plan would cause intersection operations to degrade to unacceptable LOS E at the Porter Street and Highway 1 northbound ramps intersection during the AM peak hour in 2035.

Mitigation Measure TRANS-1: To mitigate this impact, an additional westbound right turn lane would be required to be constructed on the Highway 1 northbound off-ramp at Porter Street. With implementation of this improvement, the intersection would operate at an acceptable LOS C during the AM and PM peak hour under proposed Plan in conditions in 2035. The improvements necessary to mitigate this impact to a less than significant level would require the approval of Caltrans, and implementation of the improvement may not be feasible. As there are no certain and feasible mitigation measures are available to reduce this impact, a *significant and unavoidable impact* would remain.

Significance After Mitigation: Significant and unavoidable.

TRANS-6 Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable project, would result in additional cumulatively considerable impacts.

Mitigation Measure TRANS-6: Implement Mitigation Measure TRANS-1.

Significance After Mitigation: Significant and unavoidable.

This chapter describes the existing utilities and services systems in Capitola and evaluates the potential impacts from buildout of the Plan on those services and facilities. Water supply, wastewater, stormwater, and solid waste are each addressed in a separate section of this chapter. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of project-specific and cumulative impacts.

4.14.1 WATER

This section outline368s the regulatory setting, describes existing conditions, and discusses potential impacts from build out of the Plan with regard to local water supply, treatment, and distribution. Water for the City of Capitola is provided by the Soquel Creek Water District (SqCWD) for areas primarily east of 41st Avenue and the City of Santa Cruz Water Department for areas primarily west of 41st Avenue. The SqCWD provides approximately 90 percent of the total water used by the City of Capitola, and the City of Santa Cruz Water Department provides the remaining 10 percent.

The SqCWD relies entirely on local groundwater aquifers to provide water for approximately 38,000 people, including most of the residents of Capitola. The City of Santa Cruz Water Department (SCWD) serves about 91,000 people, including a portion of Capitola, and derives all of its water from coastal streams, the San Lorenzo River, Loch Lomond reservoir, and a few groundwater wells.

The analysis in this section is based on the SqCWD 2010 Urban Water Management Plan (UWMP), SqCWD 2012 Integrated Resources Plan Update (IRPU), SqCWD 2011 Partial Well Master Plan (PWMP; approved by SqCWD Board Resolution 11-08), as well as the City of Santa Cruz 2010 UWMP, City of Santa Cruz Water Supply Assessment (WSA) for General Plan 2030 (adopted March 29, 2011), City of Santa Cruz 2003 Integrated Water Plan (IWP), and the scwd² Regional Seawater Desalination Project Draft Environmental Impact Report released May 13, 2013, except where noted otherwise.

4.14.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal and State Regulations

The following are federal and State regulations that affect water service at the Plan Area.

Federal Safe Drinking Water Act

The Safe Drinking Water Act authorizes the EPA to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In

California, the State Department of Health Services conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act (Porter-Cologne), which was passed in California in 1969, the State Water Resources Control Board (SWRCB) has the ultimate authority over State water rights and water quality policy. Porter-Cologne also establishes nine Regional Water Quality Control Boards (RWQCBs) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater.¹ Capitola is overseen by the Central Coast RWQCB.

California Senate Bill (SB) 610 and 221

SB 610 and SB 221 amended State law to ensure better coordination between local water supply and land use decisions and confirm that there is an adequate water supply for new development. Both statutes require that detailed information regarding water availability be provided to City and County decision-makers prior to approval of large development projects. SB 610 requires the preparation of a WSA for certain types of projects, as defined by Water Code §10912, that are subject to the California Environmental Quality Act (CEQA).² Projects required to prepare a WSA are defined as follows:

- Residential development of more than 500 dwelling units.
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor area.
- Hotel or motel, or both, having more than 500 rooms.
- Industrial, manufacturing, or processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- Mixed-use project that includes one or more of the projects specified above.
- Project that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

SB 221 establishes consultation and analysis requirements related to water supply planning for residential subdivisions including more than 500 dwelling units.³ Written verification by the water supplier that sufficient

¹ California Wetlands Information System, *Summary of the Porter-Cologne Water Quality Control Act*, http://ceres.ca.gov/ wetlands/permitting/Porter_summary.html, accessed on September 23, 2011.

² Bill Number: SB 610 Chartered, http://info.sen.ca.gov/pub/01-02/bill/sen/sb_0601-0650/sb_610_bill_20011009_ chaptered.html, accessed on September 23, 2011.

³ Bill Number: SB 221, Bill Analysis, http://info.sen.ca.gov/pub/01-02/bill/sen/sb_0201-0250/sb_221_cfa_20010426_ 132334_sen_comm.html, accessed on September 23, 2011.

water is available for the project is required before construction begins. The document used to determine compliance with both SB 610 and SB 221 is the UWMP.

California Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt a UWMP and update it every 5 years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet (AF)⁴ of water annually. The Act is intended to support conservation and efficient use of urban water supplies at the local level. The Act requires that total projected water use be compared to water supply sources over the next 20 years in 5-year increments, that planning occur for single and multiple dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.⁵

California Groundwater Management Act

The Groundwater Management Act of the California Water Code (AB 3030) provides guidance for applicable local agencies to develop voluntary Groundwater Management Plans (GMP) in State-designated groundwater basins. GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facilities' maintenance, and water quality.⁶

The Water Conservation Act of 2009 (Senate Bill X7-7)7

Senate Bill X7-7, which was enacted in 2009, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015.

State Updated Model Landscape Ordinance (Assembly Bill 1881 [2006])8

The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance (MO). Addressing these concerns, the Santa Cruz County Board of Supervisors in March, 2013 adopted a Water Efficient Landscape Ordinance (WELO) to promote efficient water use in area landscapes – and to comply with this State law. In addition, within the service areas of water purveyors in the county that have adopted their own WELOs, such as the SqCWD and City of Santa Cruz Water Department

⁴ 1 acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1 foot.

⁵ Department of Water Resources, *About Urban Water Management*, http://www.water.ca.gov/urbanwatermanagement/, accessed on September 23, 2011.

⁶ Department of Water Resources Planning and Local Assistance Central District, Groundwater, *Groundwater Management*, http://www.cd.water.ca.gov/groundwater/gwab3030.cfm, accessed on September 23, 2011.

⁷ Department of Water Resources, Senate Bill SBX7-7 2009 Information, http://www.water.ca.gov/wateruseefficiency/sb7/, accessed on September 23, 2011.

⁸ http://www.water.ca.gov/wateruseefficiency/landscapeordinance/.

(SCWD), both of which serve Capitola, those agencies will continue to review projects for compliance with water efficiency standards. Thus, for example, for a development project requiring a permit in Capitola, either the SqCWD or the SCWD – depending on which agency has jurisdiction -- will review the project for compliance with its own WELO.

Regional and Local Regulations

Integrated Resources Planning Studies

Guidance for water supply and demand planning, based on an integrated approach, is provided by the SqCWD 2012 IRPU, as well as the City of Santa Cruz 2003 IWP and the City of Santa Cruz WSA for General Plan 2030. This integrated resource planning approach is intended to help the SqCWD and SCWD decision making on managing facilities and resources. As part of these planning documents, the SqCWD and the SCWD developed long-term water supply strategies with consideration of supply-side and demand-side resources, which were incorporated into the 2010 UWMPs prepared by the SqCWD and SCWD, respectively. The SqCWD and SCWD integrated planning efforts also include provisions for a potential future seawater desalination facility.

Urban Water Management Plans9

The SqCWD and the SCWD updated and adopted their UWMPs in 2011 for the period of 2010 through 2015, in accordance with the SB-X7-7 and the Urban Water Management Planning Act. One of the purposes of the UWMP is to identify measures to meet SB-X7-7 requirements that mandate a 20 percent reduction of per capita water use and agricultural water use throughout the State by 2020. To achieve this and to prepare for the event of water supply shortfalls, the UWMPs incorporate water supply strategies recommended in the Integrated Resources Planning Study and addresses demand, reliability, and management strategies. In addition, the UWMP evaluates water supply capacity and projected water demands over a 20-year planning horizon. A range of water supply scenarios are modeled, including normal, single-dry, and multiple-dry water year conditions.

SqCWD Partial Well Master Plan¹⁰

The SqCWD relies entirely on local groundwater aquifers to provide water for approximately 38,000 people in the mid-county region. The SqCWD staff developed a WMP to improve redundancy and flexibility in the SqCWD's water production and distribution system, redistribute groundwater pumping away from coastal areas and depressed groundwater zones, and be consistent with the AB 3030 Groundwater Management Plan for the Soquel-Aptos Area. By Resolution No. 11-08, the SqCWD Board on February 22, 2011 approved a portion of the WMP consisting of 1) the development of up to two new groundwater production wells at two locations (Cunnison Lane and Granite Way-Aptos Village Well sites) and the secondary improvements needed to support these wells, 2) the conversion of an existing irrigation well to a municipal well (Polo Grounds Well) and the secondary improvements needed to support this well, 3) the abandonment and destruction of one deteriorated production well (Monterey

⁹ Soquel Creek Water District, 2011, Urban Water Management Plan; and City of Santa Cruz Water Department, December, 2011, Urban Water Management Plan.

¹⁰ Soquel Creek Water District, 2011, Resolution No. 11-08 [Approval of the Partial Well Master Plan Project].

Well), and 4) the removal of two wells from production and the maintenance of those wells as inactive wells (Maplethorpe, and either T. Hopkins or Aptos Creek, depending on the performance of these wells when the proposed Granite Way-Aptos Village Well is incorporated into WMP operations).

SqCWD Resolution Establishing a Water Demand Offset Policy for New Development - Resolution No 03-31

The SqCWD Board of Directors determined that applicants for new single-family water service from Soquel Creek Water District shall be required to offset expected water use of their respective development by a 1.6 to 1 ratio by retrofitting existing developed property within the Soquel Creek Water District service area so that any new development has a "zero impact" on the District's groundwater supply. Applications for other uses must offset water usage by a 2.2 to 1 ratio. Applicants for new service shall bear those costs associated with the retrofit as deemed appropriate by the District up to a maximum set by the District and pay any associated fees set by the District to reimburse administrative and inspection costs in accordance with District procedures for implementing this program. This resolution was adopted August 5, 2003. In October 2007, this resolution was amended such that properties with existing District water service shall be subject to all applicable water demand offset requirements under the following circumstances regardless of existing meter capacity: 1) Commercial or Institutional Customers, there is a change in building use or increase in building square footage; or 2) Residential Customers, there is an increase in residential lot size that results in a higher water use factor. The water demand offset (WDO) must be accepted as complete by SqCWD prior to occupancy or final sign off on the building use permit. Failure to complete the WDO could result in a hold placed on the building/use permit and/or discontinuance of water service. The District's Will Serve letter will be modified to clearly state that any increase in demand from a change in use or expansion will be subject to the new WDO policy and notification of this change will be sent to all existing commercial properties and proposed commercial development currently holding Will Serve letters.

SqCWD Resolution Amending Water Demand Offset Policy for New and Existing Development – Resolution No 13-17

This resolution – adopted July 9, 2013 – amended Resolutions 03-31 and 09-40. It specifies that the following development projects are subject to the Water Demand Offset Policy: 1) Development projects requiring a new water service, and 2) Development projects with an existing water service that are undergoing a change in use that is expected to increase water demand, as determined using District-established water use factors.

The above listed development projects shall be required to offset expected water use of their respective development by retrofitting existing developed property within the Soquel Creek Water District service area in accordance with District procedures and staff guidance. The aim is for new or specified existing development (i.e. change of use) to have not only a "zero impact" on the District's groundwater supply but to have a positive impact. Thus, a 1.6 multiplier factor shall be applied to all projected water-use calculations until a study is completed and the water-use factors are adjusted. After the study, a 2.0 multiplier factor will be applied to all projected water-use calculations. The goal is for new or specified existing development to offset 200 percent of its projected water use.

Regional Seawater Desalination Program¹¹

After over 20 years of multiple studies and public meetings, the SCWD and SqCWD have identified a portfolio of existing supplies, conservation, cutbacks during droughts, and a supplemental supply to meet customers' needs. Desalination in particular was identified as the potential supplemental supply to further evaluate. In 2007, the SCWD and SqCWD joined together to address their different needs and share the costs associated with evaluating the proposed seawater desalination project. This program is currently in an Environmental Review process evaluating the potential for a 2.5 million gallon per day (mgd) desalination facility in Santa Cruz. No decision has yet been made on the actual construction of the proposed Plan. The Draft EIR for the desalination project was released on May 13, 2013. The 90-day comment period ended on August 12, 2013.

The objectives of the proposed desalination project are to provide for a supplemental water supply in a timely manner that meets the broad policy and planning objectives of the City of Santa Cruz IWP and the SqCWD IRP, and provides for the amount of supplemental water supply identified as necessary in the 2010 UWMPs of the two agencies. However, other current water planning objectives are also considered, such as those associated with the City of Santa Cruz's habitat conservation planning process to reduce its ongoing effects on listed species in the coastal streams and rivers from which the SCWD currently diverts water and those providing SqCWD with a supplemental water supply that will offset groundwater pumping, thereby assisting SqCWD in operating its wells in a manner that reduces overdraft, allows for aquifer recovery to protective target groundwater levels, and thus reduces the potential for seawater intrusion.

The SCWD and the SqCWD propose to cooperatively operate the desalination plant to provide water to each agency during different times to meet the different objectives and needs of the two agencies. Generally, the SCWD would have priority to use the water from the desalination plant in summer months, and the SqCWD would have priority during winter months.

On August 20, 2013, in response to comments received on the Desalination Project DEIR, the City of Santa Cruz Mayor and City Manager recommended that there be no vote on the desalination plant in 2014. The City and SqCWD will pursue a community involvement project and continue to evaluate water supply options.¹²

City of Santa Cruz - Chapter 16.10.010 - Desalination Plant - Voter Approval

Before taking a legislative action to authorize or permit construction of a desalination plant in the city, the City of Santa Cruz City Council shall first submit the question of that desalination plant's construction to the qualified electors of the City of Santa Cruz at a regularly scheduled general municipal or Statewide election.

On August 20, 2013, in response to comments received on the Desalination Project DEIR, the City of Santa Cruz Mayor and City Manager recommended that there be no vote on the desalination plant in 2014.¹³

¹¹ Regional Seawater Desalination Program Website, http://www.scwd2desal.org/.

¹² City of Santa Cruz Press Release, 2013, Mayor Hillary Bryant and Manager Martin Bernal Issue Statement on Desal Project and Soquel Creek Water District Press Release, 2013, Soquel Creek Water District Leaders Remain Committed to Long-Term Water Supply Solutions to Solve Water Shortage Issues.

¹³ City of Santa Cruz Press Release, 2013, Mayor Hillary Bryant and Manager Martin Bernal Issue Statement on Desal Project.

City of Santa Cruz Water Efficient Landscape Ordinance14

This ordinance applies to properties in the SCWP service area including property in Capitola west of 41st Street. The Landscape Water Conservation Ordinance was adopted to promote efficient water use in area landscapes. Its purpose is to lower the demand for water, particularly during the months of April through October. All persons applying to the SCWD for new or increased water service must meet the specific water conservation standards in their landscape design. Existing customers that are required to re-landscape their property as part of a land use approval process must also comply with the city's water conservation standards in the re-landscape area. Residential properties with one or two living units on less than ½-acre are required only to limit turf grass to no more than 25 percent of the landscape area.

SqCWD Indoor and Landscape Water Use Efficiency Requirements¹⁵

SqCWD's Board of Directors approved the Indoor and Landscape Water Use Efficiency Ordinances at the public meeting on August 17, 2010. The Ordinances require indoor and outdoor water conservation devices, features, and practices in all new development, and certain existing development, as a condition for obtaining new or expanded water service or, in the case of certain existing development, receiving continued water service. Water use efficiency requirements were developed by SqCWD to protect groundwater supplies from over pumping and to promote efficient usage of the District's limited water resources. Discrete requirements (e.g., appliance efficiency standards, landscape features, signed checklists, maintenance, inspection, and procedural measures) apply to subdivisions, planned unit developments, and projects with designated open spaces and landscaped areas other than single-family lot development. Single-family lots are required to adhere to different requirements. Existing customers are exempt unless they are requesting an increase in meter size or a new meter. Water service may be withheld until the requirements are met.

City of Capitola Title 13.02 - Water Conservation Plumbing Fixture Retrofit

This ordinance requires that all existing residential, commercial, and industrial buildings, at the time of sale, be retrofitted, if not already so, exclusively with low consumption plumbing fixtures. It is administered by the City of Santa Cruz and the SqCWD.

City of Capitola Title 17.97 - Water-Efficient Landscaping

This ordinance provides guidelines for the use of drought-tolerant plants and water-efficient irrigation systems as part of all new commercial and residential construction. It should be noted that this ordinance is not consistent with the State's recently adopted Water Efficient Landscape Act (AB 1881) and that the City is intending to revise this ordinance and refer to the requirements of each water supplier, both of which have revised their water-efficient landscaping requirements to be at least as stringent as AB 1881.

¹⁴ City of Santa Cruz, http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=3929.

¹⁵ Soquel Creek Water District, 2010, http://www.soquelcreekwater.org/content/indoor-and-landscape-water-use-efficiency-ordinances.

Existing Conditions

This section describes water supply sources, water supply infrastructure, and water treatment facilities, as well as projected demand and supply through 2035.

Water Supply Sources

Soquel Creek Water District

Approximately 90 percent of the total water used by the City of Capitola is provided by the SqCWD, which serves the areas primarily east of 41st Avenue.

The SqCWD currently relies solely on groundwater from aquifers underlying the Soquel-Aptos area. Given that, the information provided below regarding water supply is provided in acre-feet per year (afy), which is the commonly used unit for groundwater systems.¹⁶ The aquifers are located within two geologic formations that underlie the SqCWD service area. The Purisima Formation (Purisima) provides approximately two-thirds of SqCWD's annual production and serves the communities of Capitola, Soquel, Seacliff Beach, and Aptos. The Aromas Red Sands (Aromas) 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.

The SqCWD extracts groundwater from the deep water-bearing zones within the Purisima formation, a 2,000foot-thick body of sandstone inter-bedded with layers of siltstone and claystone. The Purisima consists of at least nine distinct geologic units that vary in thickness and hydrogeologic characteristics. Some of the units in this formation transmit and store groundwater more effectively than others. The Unit "A" Aquifer is the most consistently coarse-grained aquifer in the Purisima, and is distinct and highly permeable. Several SqCWD wells are located in this unit; however, the District also operates production wells in the other units.

The SqCWD also extracts groundwater from the semi-confined and unconfined units of the Aromas, a 400-footthick aquifer divided into two units. The uppermost unit is about 225 feet thick, and the lowermost unit is about 175 feet thick. All of the SqCWD production wells in the Aromas are located in the lowermost unit. The Aromas aquifer is composed of inter-bedded layers of silt and clay, and it overlies the Purisima in portions of the SqCWD service area.

The groundwater within the Soquel-Aptos area is also a source of supply for the SCWD, Central Water District (CWD), and numerous mutual water companies and private wells. Water production data are generally only available from the public water agencies; however, there has been some effort to extrapolate total production based on land use. It is estimated that SqCWD pumps approximately 55 to 60 percent of the total annual groundwater yield from the Soquel-Aptos area, with the remaining 40 to 45 percent pumped by all other users.^{17,18}

¹⁶ This is in contrast to gallons used by City of Santa Cruz for their surface water system. One acre-foot (af) is equivalent to 325,851 gallons or 0.325851 million gallons.

¹⁷ Johnson, N.M., D. Williams, E.B. Yates, and G. Thrupp, 2004. Groundwater Assessment of Alternative Conjunctive Use Scenarios – Technical Memorandum 2: Hydrogeologic Conceptual Model, Prepared for Soquel Creek Water District.

¹⁸ scwd², 2013, Regional Seawater Desalination Project Draft EIR.
Due to the proximity of the geologic basin to Monterey Bay, the groundwater formations described above have offshore ocean outcrops, which present opportunities for seawater intrusion along the coast.

The SqCWD 2010 UWMP (Section 4) describes recent concerns regarding seawater intrusion and groundwater overdraft as follows:

While not formally categorized as a critically over-drafted basin in Bulletin 118-80, hydrogeologic studies conducted by HydroMetrics WRI (2011) conclude that coastal groundwater levels are below elevations that protect the Soquel-Aptos area from seawater intrusion, therefore creating a state of overdraft (HydroMetrics LLC, 2009a). This potential for seawater intrusion indicates that collective pumping by the SqCWD, the City of Santa Cruz, Central Water District, and other public and private users has exceeded the sustainable groundwater yield of the Soquel-Aptos area over the long term. Hydrogeologic studies conducted in 2004 estimated that the sustainable yield for SqCWD was not more than 4,800 acre-feet/year (afy) with 3,000 afy available from the Purisima, and 1,800 afy available from the Aromas (Johnson et al., 2004) and these values were set as SqCWD's pumping goals in the Soquel-Aptos Groundwater Management Plan (ESA, 2007). However, a study of outflow needed to achieve protective groundwater levels concluded that the previous estimate of 4,800 afy is likely hundreds of acre-feet per year too high to protect against seawater intrusion after groundwater levels recover to protective elevations. (HydroMetrics LLC, 2009b).

Recent modeling and evaluations by HydroMetrics WRI (2011) indicate that SqCWD's portion of the sustainable yield in the Purisima is approximately 2,500 afy (500 afy less than previous estimates) and SqCWD's portion of the sustainable yield in the Aromas could be just a few hundred acre-feet, which is significantly less than the 1,800 afy previously projected. In order to recover groundwater levels to protective elevations and eliminate overdraft, SqCWD must temporarily reduce pumping to levels below its portion of the sustainable yield (HydroMetrics WRI, 2011) and other pumpers must not further impact the overdrafted portion of the basin.

In response to continuing overdraft conditions, SqCWD is advocating conservation and pursuing a supplemental supply. 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.

The current average annual demand in the SqCWD service area, based on average annual demand from 2006 through 2010, is 4,615 afy (approximately 1.5 billion gallons)¹⁹. As a result of ongoing conservation efforts and other potential factors including but not limited to weather, the economic downturn, and rate increases, the average annual demand has been reduced by approximately 800 AF when compared to average annual demand from 2001 to 2005, which was 5,416 afy (approximately 1.77 billion gallons).

SqCWD was able to consistently meet the demands during the period of 2006 - 2010, when annual pumping volumes ranged from 4080 afy to 5048 afy; and averaged 4,615 afy, as summarized above. However, ongoing groundwater production at current and projected levels of demand is not sustainable, due to recent concerns regarding groundwater overdraft and resulting seawater intrusion.²⁰

¹⁹ Soquel Creek Water District, 2011, 2010 Urban Water Management Plan.

²⁰ Soquel Creek Water District, 2011, 2010 Urban Water Management Plan.

In addition, the California Department of Fish and Wildlife (DFW), in a comment submitted in response to the NOP,²¹ identified fish habitat as another issue relevant to water supply and demand. Fish habitat depends in part on adequate stream flow, which in turn is partially a function of groundwater levels and groundwater recharge. In the Soquel Creek watershed, steelhead (*Oncorhynchus mykiss*) populations have declined in recent years while coho salmon (*Oncorhynchus kisutch*) have been extirpated.²² The causes of steelhead decline and coho extirpation are due to numerous mechanisms including declines in the quality and quantity of in-stream habitat, localized increases in water temperature — in part due to historic losses of riparian vegetation, increased sediment loading from historic land uses and more recent episodic events, and the occurrence of low base-flow sometimes resulting in no flow conditions in lower parts of the Soquel Creek watershed mainstem.

City of Santa Cruz Water Department

Approximately 10 percent of the total water used by the City of Capitola is provided by the SCWD, which serves the areas primarily west of 41st Avenue.

The SCWD provides water service to approximately 91,000 residents in a 20-square-mile area, including the entire City of Santa Cruz, adjoining unincorporated areas of Santa Cruz County, a portion of the City of Capitola, and coastal agricultural lands north of the city of Santa Cruz.

Water supply for the SCWD relies entirely on rainfall, surface runoff, and groundwater infiltration occurring within watersheds located in Santa Cruz County. No water is imported from federal, State or other outside sources. The supply system is comprised of four main production elements, 1) the North Coast streams, 2) the San Lorenzo River, 3) Loch Lomond Reservoir, and 4) the Live Oak ground water wells.

Recently, diversions from the SCWD's surface water sources have been limited by Endangered Species Act (ESA) issues. All of the streams from which the SCWD diverts water, including the North Coast sources, San Lorenzo River, and Newell Creek, provide important habitat for steelhead trout, which are listed under the federal ESA as threatened. Additionally, the San Lorenzo River and Laguna Creek also provide habitat for coho salmon, listed under the federal and state ESAs as endangered.

For the last 10 years, the City of Santa Cruz has been in the process of developing a Habitat Conservation Plan (HCP), which is a plan prepared under the federal ESA by nonfederal parties seeking to obtain permits for incidental taking of federally-listed threatened and endangered species. In 2007, the City of Santa Cruz began diverting less from the North Coast system on an interim basis in connection with the ongoing pursuit of an incidental take permit. The City of Santa Cruz anticipates diverting substantially less in the future from the North Coast sources and from the San Lorenzo River to leave more water for fisheries habitats once an agreement with regulatory agencies has been negotiated.

²¹ California Department of Fish and Wildlife, 2013, NOP Comment Letter Regarding Department of Fish and Wildlife's 2004 Recovery Strategy for California Coho Salmon, submitted via email from M. Farinha to R. Grunow, July 24, 2013.

²² Santa Cruz County Resource Conservation District (RCD), 2003, Soquel Creek Watershed Protection and Enhancement Plan.

Water supplies are generally prioritized to meet daily demands in the following order: North Coast, San Lorenzo River, Live Oak Wells, and Loch Lomond Reservoir. Due to the excellent water quality and lowest production cost, the North Coast sources have historically been used to the greatest extent possible. Also, the North Coast diversions are least affected by water rights limitations.

Between (2006-2010), gross production from the North Coast sources has averaged 1,065 million gallons per year (mgy), or 30 percent of the total supply, while the San Lorenzo River supply has averaged 1,889 mgy, or about 54 percent of the total supply. Together, these flowing sources provide over 80 percent of the SCWD's yearly water needs. Water supplied from Loch Lomond Reservoir averaged 419 mgy, or 12 percent. Groundwater from the Live Oak Wells provided an average of 156 mgy, or about 4 percent of the SCWD's total supply. However, the aforementioned ESA issues will likely affect the priority of source selection and the relative contribution of each source to overall production.

Water Supply Infrastructure

Soquel Creek Water District

The SqCWD encompasses 7 miles of shoreline along Monterey Bay and extends from one to 3 miles inland into the foothills of the Santa Cruz Mountains, essentially following the County Urban Services Line. The City of Capitola is the only incorporated area within the SqCWD. The District's water supply system consists of 19 groundwater production wells, 16 of which are currently active; approximately 130 miles of pipeline; and 18 water storage tanks.

According to the 2010 UWMP, the SqCWD serves 37,720 people through approximately 15,420 service connections (including approximately 1,320 fire service connections and approximately 180 dedicated landscape irrigation connections) in four service subareas within mid-Santa Cruz County. Approximately 93 percent of SqCWD connections are residential²³. The remaining seven percent are comprised of commercial, institutional, dedicated irrigation, and SqCWD connections used for facility operations and maintenance. There are currently no agricultural or industrial connections to the SqCWD distribution system.

The SqCWD's water production, storage, treatment, and distribution system, as noted above, is operated within four individual water service areas that are referred to as Service Areas 1, 2, 3, and 4. These service areas, which originated as privately owned water systems, were consolidated/acquired over the years to form the SqCWD. Service Areas 1 and 2 are intertied by the McGregor Drive Transmission Line; Service Areas 3 and 4 are intertied by the San Andreas Road Transmission Line. Although interconnections between Service Areas 1 and 2 and between Service Areas 3 and 4 allow for some movement of water between service areas, the transfer of water between Service Areas 1 and 2 and Service Area 3 is not currently possible.²⁴

²³ scwd², 2013, Regional Seawater Desalination Project Draft EIR.

²⁴ scwd², 2013, Regional Seawater Desalination Project Draft EIR.

Service Area 1, which includes Capitola and Soquel, draws water from the Purisima Formation and includes the following facilities: 6 production wells (4 in production/2 inactive), 4 water storage tanks, 2 booster pump stations, and 5 treatment plants.

Service Area 2, located in the Aptos area, draws ground water from the Purisima Formation and includes the following facilities: 5 production wells (all in production, but some are not reliable or are impaired), 6 water storage tanks, 3 booster pump stations, and 2 treatment plants.

Service Area 3, encompassing Rio Del Mar/Seascape and parts of Aptos, draws ground water from the Purisima and Aromas formations, and includes the following facilities: 6 production wells (all in production, but one well is impaired), 4 water storage tanks, 5 booster pump stations, and 2 treatment plants.

Service Area 4, encompassing La Selva Beach, draws from the Aromas Formation and includes the following facilities: 2 production wells (one in production, but both wells are impaired), 4 water storage tanks, and 1 booster pump station.

The total estimated production capacity of the system is about 21.5 acre-feet per day (afd) (7 mgd) and the total storage capacity is 23 afd (7.5 mgd). Some of the District's wells are 20 to nearly 80 years old, have lost production capacity, and have grown increasingly vulnerable to mechanical failure. The SqCWD's WMP is addressing these issues.

The SqCWD does not export water to other water suppliers. Additionally, no water is purchased from State or federal sources or imported into the SqCWD. However, the SqCWD has interties with both the City of Santa Cruz and the CWD that allow for the transfer of small volumes of water to supplement the SqCWD's supply in the event of production shortages caused by mechanical failure, planned maintenance activities, or other emergencies. These interties are not capable of transferring significant quantities of water. Over the 5-year period of 2006-2010, the SqCWD received approximately 38 AF from CWD to help meet water demand.

City of Santa Cruz Water Department

According to the recently updated UWMP, the SCWD serves an estimated population of approximately 91,300 people, of which about two-thirds live inside the City of Santa Cruz limits. This population is served through 24,350 service connections, of which 64 percent are residential, and the remaining connections are business and industry, large landscape irrigation, coast agriculture, and municipal water accounts.

The City of Santa Cruz operates two water treatment facilities. All surface water is treated at the Graham Hill Water Treatment Plant (Graham Hill plant), which currently has a maximum production capacity of about 18.5 mgd. The Beltz Water Treatment Plant (Beltz plant) has a capacity of 2 mgd and treats groundwater from the Live Oak Well system.

Finished water from the Graham Hill plant and the Beltz plant is pumped directly into the distribution system. Raw water is delivered to the Graham Hill plant through various transmission facilities from respective supply sources. The 16-mile-long Coast Transmission Main delivers raw water diverted at the North Coast sources to the Coast Pump Station by gravity. The Coast Pump Station is located next to the Tait Street Diversion and pumps raw water from the North Coast and San Lorenzo River sources up to the Graham Hill plant. The 9-mile-long Newell

Creek Pipeline delivers raw water from Loch Lomond Reservoir through Henry Cowell State Park to the Graham Hill plant. The Felton Booster Pump Station is used to move water into Loch Lomond Reservoir from the Felton Diversion and out of Loch Lomond to the Graham Hill plant.

Water Demand and Supply Projections

Soquel Creek Water District

The sustainable supply of SqCWD groundwater will not be sufficient to meet future water demand, as shown in Table 4.14-1. The groundwater basin that supplies the SqCWD and other local pumpers (i.e. private wells, mutual water companies, Cabrillo College, CWD, and the City) is overdrafted and coastal groundwater levels are too low to protect against seawater intrusion. Overdraft of the basin is not sustainable and intrusion of seawater into the freshwater of the Soquel-Aptos Basin (Basin) will contaminate it, making the groundwater unusable. While seawater has not yet reached any of the SqCWD's production wells, the SqCWD's coastal monitoring network has detected seawater intrusion, and production wells within the Pajaro Valley, just south of the SqCWD's service area, have been contaminated. Reducing groundwater extraction and raising groundwater levels will aid in restoring the Basin to prevent seawater intrusion from occurring.

TABLE 4.14-1 SocWD Groundwater Projected to be Pumped from Soquel-Aptos Area (AFY)

	2010	2015	2020	2025	2030
Project Demand (before anticipated savings)		4,621	4,738	4,787	4,834
Adjusted Projected Demand (after anticipated savings)	4,084 (actual) 4,610 (baseline)	4,448	4,392	4,254	4,116
Quantity Provided by Groundwater Sources		4,448	3,000	3,000	3,000
Percent of total water supply	100%	100%	68%	71%	73%

Source: SqCWD 2010 UWMP; Table 4-3.

Despite extensive conservation efforts, without supplemental water the SqCWD lacks adequate groundwater supply to restore protective groundwater levels and meet the future water supply needs of its customers. However, with seawater desalination supplementing the projected sustainable groundwater supply, the SqCWD *will* have sufficient water supply to meet future demand, as shown in Table 4.14-2.

Water demand and supply projections from the SqCWD UWMP are summarized in Table 4.14-3.

City of Santa Cruz Water Department

The SCWD will have sufficient water supply to meet water demand by the year 2030 during normal year conditions, as shown in Table 4.14-4. However, as shown in Table 4.14-5 and Table 4.14-6, existing projected water supplies during single and multiple dry years will not meet the future water demand. Under single dry year conditions, the SCWD would experience a shortage of up to 3 percent in 2030. Under multiple dry years, SCWD would experience an annual average deficit of 30 percent, and a peak season deficit of 43 percent, by 2030 without a supplemental supply. However, supplemental water supply from the seawater desalination plant jointly proposed by SCWD and SqCWD would be adequate to meet these projected deficits.

TABLE 4.14-2 SQCWD CURRENT & PROJECTED WATER SUPPLIES (AFY)

	2010	2015	2020	2025	2030
Adjusted Demand (after savings)	4,084 (actual)	4,448	4,392	4,254	4,116
Planned Sources of Water					
Supplier-produced groundwater	4,080	4,448	3,000	3,000	3,000
Supplier-produced surface water	0	0	0	0	0
Transfer In ^a	4	0	0	0	0
Exchanges In	0	0	0	0	0
Desalinated Water	0	0	1,392	1,254	1,116
Recycled Water	0	0	0	0	0
Wholesale Suppliers	0	0	0	0	0

a. Based on an initial feasibility study prepared by Santa Cruz County Environmental Health Services Agency, up to 340 afy may be available to SqCWD at some point in the future.

Source: SqCWD 2010 UWMP; Table 4-2.

TABLE 4.14-3 SQCWD PROJECTED WATER SUPPLY AND DEMAND FOR 2015-2030 (AFY)

	2010 Production	Baseline Demand ^a	2015	2020	2025	2030
Demand Projection Start Point (AF)	4,084 (actual)	4,610				
Estimated Population of Service Area (persons) ^b	37,720 (actual)	37,720 (actual)	37,808	38,771	39,168	39,550
Baseline Per Capita Usage (afy/person)	0.108	0.122				
Projected Demand (before anticipated savings) (AF)			4,621	4,738	4,787	4,834
Anticipated Cumulative Savings (AF) ^c			173	347	533	718
Adjusted Projected Demand (after anticipated Savings) (AF)			4,448	4,392	4,254	4,116
Estimated Target Groundwater Production Goal (AF) ^d				2,900	2,900	2,900
Supplemental Supply Needs (based on adjusted projected demand) (AF)			0	1,492	1,354	1,216

a. Baseline demand was calculated using an average of the 2004-2008 average production and the 2009-2010 average production. The rationale for this approach is provided in the text.

b. The estimated 2010 service area population is based on 2010 U.S. Census data for the service area (AMBAG, 2010). Projected population estimates use the 2010 Census-based population estimate as a base. Projected incremental increases in population between each 5-year period (AMBAG, 2010) were added to the base population.

c. Anticipated cumulative savings from conservation and other factors do not include savings achieved prior to 2010. Cumulative savings were estimated using a semiquantitative forecasting evaluation referred to as "Social, Economic, Political, Technological" (SEPT). Using this methodology, an additional 15% water savings is estimated for 2010 through 2030. For planning purposes, the savings are estimated to occur in a linear fashion over the 20-year period at 3.75% every 5 years, or 0.75% per year. This value was applied to the projected demand estimated for each 5-year period.

d. The SqCWD estimated a target groundwater production goal of **3,000 afy**, based on a recent report (HydroMetrics WRI, 2011) indicating that SqCWD's portion of the sustainable yield of the Purisima Formation is approximately 2,500 afy and SqCWD's portion of the sustainable yield of the Aromas Red Sands Aquifer could be just a few hundred AF. However, the groundwater yield (or supply) to achieve basin recovery may be less than 3,000 afy. For example, the 2012 IRP Update documents the need for supplemental supply to be approximately 1,500 afy (or 1.3 mgd) in 2015. This is based on the supply shortfall arrived at by using SqCWD demand projections identified in the 2010 UWMP and limiting District groundwater pumping to **2,900 afy** to help restore protective groundwater levels. The 2012 IRP value of **2,900 afy** is used in the table above.

Source: SqCWD 2010 UWMP; Table 4-1; and SqCWD 2012 IRP.

	2010	2015	2020	2025	2030
North Coast	1,150	860	860	860	860
San Lorenzo River	1,770	1,940	1,990	2,040	2,090
Live Oak Wells	170	170	170	170	170
Loch Lomond Reservoir	1,040	1,040	1,040	1,040	1,040
Supply Total	4,130	4,010	4,060	4,110	4,160
Demand Total	3,522	3,684	3,847	3,946	4,046
Difference	608	326	213	164	114
Average Annual Deficit (% of demand)					
Course COMD 2010 LIMAD Table E /					

TABLE 4.14-4 SCWD Supply and Demand Comparison, Normal Water Year (MGY)

Source: SCWD 2010 UWMP; Table 5-6.

TABLE 4.14-5 S	SCWD SUPPLY AND DEMAND COMPARISON, SINGLE DRY WATER YEAR (1	MGY)
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	2010	2015	2020	2025	2030
North Coast	1,000	690	690	690	690
San Lorenzo River	1,900	2,140	2,187	2,234	2,280
Live Oak Wells	170	170	170	170	170
Loch Lomond Reservoir	500	740	757	774	790
Supply Total	3,570	3,740	3,804	3,868	3,930
Demand Total	3,522	3,684	3,847	3,946	4,046
Difference	48	56	(43)	(78)	(116)
Average Annual Deficit (% of demand)			-1%	-2%	-3%

Source: SCWD 2010 UWMP; Table 5-7.

4.14.1.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact on water service if:

- 1. There were insufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements were needed.
- 2. It would require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

	2010	2015	2020	2025	2030
North Coast	710	500	500	500	500
San Lorenzo River	1,930	1,760	1,807	1,854	1,900
Live Oak Wells	170	170	170	170	170
Loch Lomond Reservoir	390	210	227	244	260
Supply Total	3,200	2,640	2,704	2,768	2,830
Demand Total	3,522	3,684	3,847	3,946	4,046
Difference	(322)	(1,044)	(1,143)	(1,178)	(1,216)
Average Annual Deficit (% of demand)	-9%	-28%	-30%	-30%	-30%
Peak Season Deficit (% of demand)	-12%	-37%	-39%	-41%	-43%

TABLE 4.14-6 SCWD SUPPLY AND DEMAND COMPARISON, MULTIPLE DRY WATER YEARS (MGY)

Source: SCWD 2010 UWMP; Table 5-8.

4.14.1.3 ENVIRONMENTAL IMPACT DISCUSSION

UTIL-1 Buildout of the proposed Plan may result in insufficient water supplies from existing entitlements and resources in 2035.

Buildout of the proposed Plan would have a significant impact if it results in insufficient water supplies from existing entitlements and resources or if new or expanded entitlements would be required.

The Plan Area is located primarily within the SqCWD's water service area. As shown in Tables 4.14-1, 4.14-2, and 4.14-3, the SqCWD anticipates demand exceeding sustainable *groundwater* supply in 2020 and beyond. The SqCWD has been working with the City of Santa Cruz to pursue new water supply resources, including a from the proposed seawater desalination plant that, in combination with sustainable groundwater supply, would provide adequate supply to satisfy future demand. However, on August 20, 2013, in response to comments received on the Desalination Project DEIR, the City of Santa Cruz Mayor and City Manager recommended that there be no vote on the desalination plant in 2014. The City and SqCWD will pursue a community involvement project and continue to evaluate water supply options.²⁵

²⁵ City of Santa Cruz Press Release, 2013. Mayor Hillary Bryant and Manager Martin Bernal Issue Statement on Desal Project. Soquel Creek Water District Press Release, 2013. Soquel Creek Water District Leaders Remain Committed to Long-Term Water Supply Solutions to Solve Water Shortage Issues.

A small portion (approximately ten percent) of the Plan Area water demand is served by the SqCWD. As shown in Tables 4.14-4, 4.14-5 and 4.14-6, the SCWD anticipates projected supply exceeding demand through 2030 during normal rainfall years. In single dry years supplies are slightly inadequate to meet future demand in 2020 and beyond. In multiple dry years, projected available supplies fall substantially short of system demands. The SCWD's analysis represented in the referenced tables and summarized above assumes increased diversion of stream flow for special status fish habitat protection, pursuant to the HCP process. In particular, the assumption is for "The Tier 2 flow bypass scenario," which calls for diverting greater amounts of water supply than is currently diverted for fish habitat. The actual future diversions of water supply for fish habitat may be more or less, based on future negotiations with the biological resource regulatory agencies, including the DFW. In any case, the overall assessment by the SCWD is that supplemental water supply is needed to meet future demand during dry years. As a result, the City of Santa Cruz has partnered with the SqCWD to evaluate a regional seawater desalination plant. As that project is currently on hold, the City and SqCWD are conducting a community involvement project and pursuing other water supply options.²⁶

The water demand projections above take into account the projected population growth in Capitola anticipated to coincide with buildout of the proposed Plan. For purposes of this analysis, given that the SqCWD provides 90 percent of Plan water, the per capita gross water use rates in the SqCWD UWMP are used to represent the entire Plan Area. The SqCWD demand projections are based on assumed population growth of about 4.8 percent ((39,550 - 37,720) / 37,720 = 4.8 percent) between the baseline year and 2030. This growth rate assumed by the SqCWD exceeds the projected population growth rate of about 2.8 percent (280/9,918 = 2.8 percent) anticipated in Capitola under the proposed Plan. As a result, existing and planned water supplies of the SCWD and the SqCWD are adequate to meet the estimated increased water demand from buildout of the Plan, as further discussed below. Tables 4.14-7 and 4.14-8 show projected water demand under the Plan, with and without anticipated water savings, respectively. Both tables rely on the Plan population change (+280) at buildout (2035) and per capita gross water use specified in the SqCWD 2010 UWMP. Disregarding the fact that the SqCWD already accounts for the anticipated population growth in Capitola under the Plan, and without accounting for water savings anticipated to occur in future years, Table 4.14-7 shows the proposed Plan could result in an increased water demand of up to 124 afy in 2030 (the horizon year of the UWMP). However, Table 4.14-8 shows the Plan would result in 59 afy less water demand in 2030, when anticipated water savings due to mandated conservation efforts and other water efficiency use factors are accounted for in future years. Moreover, the analysis in Table 4.14-8 still disregards the fact that current water district demand projections already account for anticipated population growth in Capitola under the proposed Plan.

The proposed seawater desalination plant, currently on hold, would provide sufficient capacity and flexibility to meet future water demand in the service areas of the two water purveyors (SCWD and SqCWD). As such, the desalination plant would satisfy water demand due to buildout of the Plan – including under the very conservatively estimated increased water demand of 124 afy (Table 4.14-7) that does not account for anticipated water savings due to mandated conservation efforts in future years. The proposed plant would have a capacity of 2.5 mgd (i.e., approximately 2800 afy) to meet the approved reliability targets, which limit the frequency and

²⁶ City of Santa Cruz Press Release, 2013. Mayor Hillary Bryant and Manager Martin Bernal Issue Statement on Desal Project. Soquel Creek Water District Press Release, 2013. Soquel Creek Water District Leaders Remain Committed to Long-Term Water Supply Solutions to Solve Water Shortage Issues.

TABLE 4.14-7 PROJECTED WATER DEMAND IN PLAN AREA – WITHOUT ANTICIPATED SAVINGS

Parameter	Baseline	2035	Increase
Population – Capitola	9,918	10,198	280
Per Capita Gross Water Use ^a – afy	0.122	0.122	0.0
Total Water Usage – afy	1,120	1,244	124 ^b

a. Source: Soquel Creek Water District, 2010, Urban Water Management Plan, Table 4-1. The Baseline per capita gross water usage value above is SqCWD's baseline per capita water usage value for SqCWD's service area. The 2035 per capita gross water usage value above is assumed to be unchanged from the Baseline year; without accounting for any of the anticipated cumulative savings estimated by SqCWD in its 2010 UWMP, which uses a semi-quantitative forecasting evaluation referred to as "Social, Economic, Political, Technological" or "SEPT." If the SEPT methodology *was* used, an additional 15% water savings would be estimated for 2010 through 2030.

b. This is a hypothetical and very conservative estimate of increased water demand provided for illustration purposes. It is hypothetical and overly conservative because it ignores the fact that population growth in the Plan area already is accounted for in the projections of future water demand by the SqCWD (2010 UWMP); in addition, it does not recognized the anticipated water savings due to SEPT (see above).

TABLE 4.14-8 PROJECTED WATER DEMAND IN PLAN AREA – WITH ANTICIPATED SAVINGS

Parameter	Baseline	2035	Change
Population – Capitola	9,918	10,198	280
Per Capita Gross Water Use ^a – afy	0.122	0.104	-0.018
Total Water Usage – afy	1,120	1,061	-59

a. Source; Soquel Creek Water District, 2010, *Urban Water Management Plan, Table 4-1*. The Baseline per capita gross water usage value above is SqCWD's baseline per capita water usage value for SqCWD's service area. The 2035 per capita gross water usage value above is derived from SqCWD's Table 4-1 values for Adjusted Projected Demand and Estimated Population for 2030 for its Service Area. The reduction in per capita water use in 2035 (2030) takes into account cumulative savings estimated by SqCWD using a semi-quantitative forecasting evaluation referred to as "Social, Economic, Political, Technological" or "SEPT." Using this methodology, an additional 15% water savings is estimated for 2010 through 2030. For planning purposes, the savings are estimated to occur in a linear fashion over the 20-year period at 3.75% every 5 years, or 0.75% per year.

magnitude of curtailment during droughts, given estimates of projected demand. The SqCWD's 2012 IRP Update documents the need for supplemental supply to be approximately 1,500 afy (1.3 mgd) in 2015, and less in subsequent years due to conservation and other factors. This is based on the supply shortfall arrived at by using SqCWD demand projections identified in the 2010 UWMP and limiting SqCWD groundwater pumping to 2,900 afy to help restore sustainable groundwater levels needed to protect the aquifers from saltwater intrusion, which is based on the 2012 IRP Update. The current design of the desalination plant would allow this annual supplemental supply goal to be met in all year types. In other words, the treatment plant design would allow for a range of production from approximately 0.8 mgd to 2.5 mgd. For example, in a normal water year, the SqCWD could receive 1.3 mgd throughout the year; in a critically dry year it could receive 2.5 mgd during the winter months, as the City of Santa Cruz would likely have exercised its priority during summer months. The average production condition is conservatively estimated at 1.6 mgd²⁷. The excess capacity between the estimated average plant production (1.6 mgd, or 1,792 afy) and the total plant capacity (2.5 mgd, or 2800 afy) is 0.9 mgd, or 1008 afy. Thus,

²⁷ scwd², 2013, Regional Seawater Desalination Project Draft EIR.

even the very conservatively projected 124 afy increase in water demand due to buildout of the Plan would readily be accommodated by the excess capacity of the proposed desalination plant.

The desalination plant project – which would require approval from both the SqCWD and the City of Santa Cruz and their respective constituents and citizens – is currently on hold and therefore supplies from the plant are not a certainty. On August 20, 2013, in response to comments received on the Desalination Project DEIR, the City of Santa Cruz Mayor and City Manager recommended that there be no vote on the desalination plant in 2014.²⁸ As a result, for purposes of impact analysis in this document, it is not assumed that the desalination plant will be constructed to provide supplemental water supply.

Without the desalination plant to provide supplemental water, future demand will exceed future supply in the SqCWD service area. As shown in Table 4.14-3, in 2030 the SqCWD's projected water demand (4,116 afy) will exceed sustainable water supply (2,900 afy) by approximately 30 percent (1,216 afy). The SqCWD has worked extensively with community members over the past several years to evaluate and refine options for water supply reliability and continues to communicate with residents and businesses on the potential solutions. Currently, customers are being asked to reduce water use by an additional 15 percent because 2013 has been a dry year. According to a recent press release²⁹ from the SqCWD, without additional water sources SqCWD "water customers would need to reduce overall water usage by 35 percent year round for at least 20 years to fix the problem."

Table 4.14-4 shows SCWD's water supplies are projected to be sufficient to meet the future demands in the service areas under normal year conditions. However, as shown in Tables 4.14-5 and 4.14-6, during single and multiple dry years, the SCWD may experience average water supply deficits in 2030 of 3 percent and 30 percent respectively, and peak season deficits of 43 percent, according to SCWD's UWMP. In such cases, the SCWD would implement the drought contingency plan, which contains measures that will reduce demands by up to 50 percent in the case of drought or emergency. These measures would ensure that the SCWD would have adequate water supply under severe drought conditions.

The following goals, policies, and actions contained in the proposed Plan would minimize future water demand in the Plan Area to the maximum extent practicable and contribute to reducing water demands in the SCWD and SqCWD service areas and enhancing fisheries habitats.

- Policy OSC-7.2 Soquel Creek. Continue to work with the California Department of Fish and Game and other regulatory agencies to ensure adequate water flows to support a healthy riparian habitat and permanent fishing resources in Soquel Creek.
- Policy OSC-8.3 Best Management Practices. Require all new development, public and private, to meet or exceed State stormwater requirements and incorporate best management practices to treat, infiltrate, or filter stormwater runoff and reduce pollutants discharged into the storm drain system and surrounding coastal waters during construction and post-construction, to the maximum extent practicable.

²⁸ City of Santa Cruz Press Release, 2013, Mayor Hillary Bryant and Manager Martin Bernal Issue Statement on Desal Project.

²⁹ SqCWD Press Release, 2013, Soquel Creek Water District Leaders Remain Committed to Long-Term Water Supply Solutions to Solve Water Shortage Issues, August 22.

- Policy OSC-8.5 Native Plants. Encourage the use of native plants in landscaping to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation, and to be in compliance with Stormwater Pollution Prevention Plans.
- Policy OSC-8.6 City Properties. Design, construct, and maintain City properties in a manner that maximizes water quality protection through:
 - Designing new and renovated landscaped and paved areas that suit site conditions, protect water quality, and support sustainable maintenance.
 - Using drought-tolerant native and non-invasive plant species.
 - Incorporating Low Impact Development design techniques.
 - Practicing the principles of integrated pest management.
 - Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments.
- Policy OSC-8.7 Regional Collaboration. Continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Soquel Creek watershed. Participate in efforts to reduce stormwater and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.
- Goal OCS-9. Promote water conservation.
- Policy OCS-9.1 Water Use. Maximize the conservation and efficient use of water in new and existing residences and businesses.
- Policy OCS-9.2 Drought-Tolerant Landscaping. Utilize native, drought-tolerant plants for all City landscaping activities.
- Policy OCS-9.3 Public Outreach. Work with water service providers, local non-profits, and other environmental organizations to educate the public about water issues and conservation measures.
- Action OCS-9.1 Greywater. Evaluate opportunities to develop and implement a greywater reclamation system for landscaping and other non-potable water uses for domestic, commercial, and industrial consumers. Encourage households and new developments to implement greywater reclamation systems.
- Action OCS-9.2 City Conservation Goals. Establish water conservation goals for City buildings and operations.
- Action OCS-9.3 Water Efficiency Audits. Cooperate with water district efforts to require water efficiency audits at point of sale for commercial and residential properties and the use of water conserving plumbing fixtures in all new development permitted in Capitola.
- Action OCS-9.4 Incentives. Encourage water districts to develop incentive programs for the use of droughttolerant landscaping and recycled water for landscape irrigation.

Compliance with existing regulations, which are listed below, would further reduce potential impacts on water supplies. Development within the Plan Area would include the latest technology in water efficient plumbing fixtures and irrigation systems as specified in the 2010 California Plumbing Code and the SCWD's and SqCWD's water efficiency measures for new residential and commercial development.

Applicable Regulations:

- SB-X7-7
- 2010 California Plumbing Code that requires water conserving fixtures
- SCWD's Landscape Water Conservation Ordinance
- SqCWD's Indoor and Landscape Water Use Efficiency Ordinances
- SCWD's and SqCWD's water supply and demand management strategies and water shortage contingency plan identified in the UWMPs
- SqCWD's Water Demand Offset Policy (Resolution 13-17)

In summary, assuming the desalination plant is not available to provide supplemental water, the SqCWD and SCWD project future region-wide demand would exceed future sustainable supply by 30 percent or more in 2030. With respect to the Plan Area, water demand at buildout of the proposed Plan is projected to be 59 afy less than water demand in the baseline year, when anticipated future water savings are included in the analysis (Table 4.14-8). However, because the Plan area is within water utilities' service areas where regional future supply deficits are projected, it is concluded that buildout of the proposed Plan would result in a *significant* impact on SqCWD's and SCWD's water supply.

Significance Before Mitigation: Significant.

UTIL-2 The proposed Plan would require the construction of new water facilities or expansion of existing facilities, the construction of which would may significant environmental effects.

As discussed above (UTIL-1), without construction of the proposed desalination facility, the water demand associated with the proposed Plan would exceed future supply in the SqCWD service area. Future water supply deficits that are projected if the desalination plant is not built could conceivably be addressed by alternative measures to conserve water. In addition, new development under the proposed Plan would be located within already-developed urban areas and therefore would connect to the existing water distribution system. Future development would be required to pay fees for service, system maintenance and capital upgrades. Also, future development in the SqCWD service area would be subject to the Water Demand Offset policy of the SqCWD, which requires a 160 to 220 percent reduction in water demand for any new development.

Nevertheless, because the availability of future water supplies from the desalination plant is uncertain and demand would exceed available supplies without the plant, the proposed Plan could result in the need for new water treatment facilities or the expansion of existing facilities. Therefore, the impact would be *significant*.

Applicable Regulations:

- Regional Seawater Desalination Program
- SqCWD's Water Demand Offset Policy (Resolution 13-17)

Significance Before Mitigation: Significant.

4.14.1.4 CUMULATIVE IMPACT DISCUSSION

UTIL-3 The proposed Plan, in combination with past, present, and reasonably foreseeable development, may result in significant cumulative impacts with respect to water supply.

This section analyzes potential impacts to water supply that could occur from the proposed Plan in combination with other reasonably foreseeable projects in the surrounding area. The geographic scope of this cumulative analysis is taken as the SCWD and SqCWD service areas. The proposed Plan would contribute to an increased cumulative demand for water supply, because this increased demand would exceed the long-term supply under normal circumstances, which as discussed above is assumed not to include the proposed desalination plant.

As previously discussed in Section 4.14.1.3,the SCWD's and SqCWD's UWMPs, IWP, IRP Update, and planned desalination plant determine that the water supply will be sufficient to accommodate future demand in the SCWD and SqCWD service areas through 2030, and by extension through 2035, if the desalination plant is built as proposed. However, the desalination plant project is currently on hold and therefore for the purposes of this EIR the plant cannot be assumed as a future water supply source. Without the desalination plant, particularly in the multiple dry years, water supply deficits are projected. With the SCWD's and the SqCWD's drought contingency plans in place, the shortages would be managed through demand reductions of up to 50 percent, which are not normal conditions. In addition, it is possible that water demands from the HCP process ongoing within the SCWD service area may exceed what has been projected in SCWD's UWMP, resulting in insufficient SCWD-wide water conservation ordinances that require each jurisdiction to conserve its water use through establishing water efficiency measures. In addition, pursuant to SB 610 and SB 221, WSAs would be prepared for individual large development projects prior to approval of each project to ensure adequate water supply for new development. Also, all development in the SCWD and SqCWD service areas would be required to pay development fees and charges to mitigate impacts to the SCWD and SqCWD facilities, as well as comply with the SqCWD's WDO policy.

Applicable Regulations:

- BB 610 and SB 221
- SB-X7-7
- State, county and local landscape and indoor water efficiency ordinances
- Water shortage contingency plans identified in the UWMPs, IWP and IRPs
- Regional Seawater Desalination Program
- Development Fees and Charges
- SqCWD's Water Demand Offset Policy (Resolution 13-17)

Overall, cumulative water demand would exceed anticipated levels of supply, which does not include the proposed desalination plant. As a result, either significant water demand reduction or supplemental water supply would be required. The necessary water supply could come from building new facilities (such as a desalination plant) or expanding existing facilities. Future demand would be mitigated somewhat by existing requirements for developments to pay development fees, which would offset the costs of system maintenance and capital upgrades to support the new development in the SCWD and SqCWD service areas. In addition, demand would be offset in accordance with the SQCWD's WDO policy. However, the SqCWD and SCWD indicate that additional significant demand reduction through water conservation measures of 35 percent to 50 percent would be required if the desalination plant is not built and/or the HCP diversions are greater than anticipated in dry years. Therefore, the cumulative impact would be *significant*.

Significance Before Mitigation: Significant.

4.14.1.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

UTIL-1 Buildout of the proposed Plan may result in insufficient water supplies from existing entitlements and resources in 2035.

Mitigation Measure UTIL-1: There is no mitigation measure available to reduce this impact to a less-than-significant level.

Significance After Mitigation: Significant and unavoidable.

UTIL-2 The proposed Plan would require the construction of new water facilities or expansion of existing facilities, the construction of which may cause significant environmental effects.

Mitigation Measure UTIL-2: There is no mitigation measure available to reduce this impact to a lessthan-significant level.

Significance After Mitigation: Significant and unavoidable.

UTIL-3 The Plan, in combination with past, present, and reasonably foreseeable development, may result in significant cumulative impacts with respect to water supply.

Mitigation Measure UTIL-3: There is no mitigation measure available to reduce this impact to a less-than-significant level.

Significance After Mitigation: Significant and unavoidable.

4.14.2 SANITARY WASTEWATER (SEWER)

This section describes the existing conditions and potential impacts of the proposed Plan with regard to wastewater collection and treatment facilities.

4.14.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

The federal government regulates wastewater treatment and planning through the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), as well as through the National Pollutant Discharge Elimination System (NPDES) permit program, both of which are discussed in further detail below.

Clean Water Act (CWA)

The CWA regulates the discharge of pollutants into watersheds throughout the nation. The CWA consists of two parts, one being the provisions which authorize federal financial assistance for municipal sewage treatment plant construction. The other is the regulatory requirements that apply to industrial and municipal dischargers. Under the CWA, the United States Environmental Protection Agency (EPA) implements pollution control programs and sets wastewater standards.

National Pollutant Discharge Elimination System (NPDES)

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State Regulations and Agencies

Wastewater treatment and planning is regulated at the State level. Specific regulations relevant to the proposed Plan are described below.

State Water Resources Control Board

On May 2, 2006 the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order

provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

The SWRCB has delegated authority to nine RWQCBs to enforce these requirements within their region. The City of Capitola is within the jurisdiction of the Central Coast RWQCB. The Central Coast RWQCB issues NPDES permits to wastewater generators who discharge to surface waters, such as streams, channels, and Monterey Bay. As discussed below, the Santa Cruz County Sanitation District (SCCSD) is responsible for issuing permits to wastewater generators who discharge to the sanitary sewer system. In addition to NPDES permits, the Central Coast RWQCB also requires waste discharge requirements (WDRs) for additional categories of discharges, such as wastewater recycled for reuse and wastewater discharged to land, including onsite treatment systems. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the Districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater.³⁰ The Act was amended in 1949 to allow the Districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

Local Regulation

Santa Cruz County Sewer System Management Plan

Santa Cruz County has developed and is implementing a Sewer System Management Plan (SSMP) pursuant to State Water Resources Control Board Order No. 2006-003, Statewide General Discharge Requirements of Sanitary Sewer Systems. The goal of the SSMP is to minimize the frequency and severity of sanitary sewer overflows (SSO's). The SSMP covers the management, planning, design, and operation and maintenance of the County's sanitary sewer systems.

Santa Cruz County Sewer System Capital Improvement Program 2013 - 2017

The purpose of this Capital Improvement Plan (CIP) is to identify and prioritize needs and project costs, under the direction of the SCCSD's Board of Directors, for planned improvements to the infrastructure that will serve the SCCSD's ratepayers in an efficient and cost effective manner throughout the next 5+ years of growth and change. Worn out and antiquated facilities must be repaired or replaced in a timely manner in order to protect the public health and safety. This CIP report will help identify and describe specific sanitary sewer projects for pump

³⁰ California Health and Safety Code, http://leginfo.ca.gov/cgi-bin/calawquery?codesection=hsc, accessed on November 18, 2011.

stations, transmission lines, and collector lines, which are planned to take place over the next 5+ years, along with their estimated costs.

Santa Cruz County Sanitation District Ordinances

The SCCSD has established ordinances with requirements for users that discharge to the SCCSD system, which is eventually pumped to the Publicly Owned Treatment Works (POTW) at Neary Lagoon that is owned and operated by the City of Santa Cruz. This enables SCCSD to comply with the applicable State and Federal laws, including the Clean Water Act and the National Pretreatment Program requirements, as well as the water quality requirements set by the Central Coast RWQCB and the SWRCB. Ordinances list prohibited discharges, establish limitations on wastewater strength, and require commercial and industrial dischargers to apply to perform certain upgrades and repairs for new developments, remodels, or property transactions. Ordinances also establish standards for plan submittals, issuance of permits for sewer construction and connection, inspection of sewer installations, and collection of fees for this service.

Santa Cruz County Sanitation District Sewer Service Fees – Per State Requirements

The SCCSD's fees for sewer service are subject to the requirements of the SWRCB's Revenue Program Guidelines. This is a condition of the State and federal grants and loans received by the SCCSD in past years. The Guidelines require that fees for sewer service be designed to recover adequate revenues for the operation and maintenance of SCCSD's facilities. The SCCSD's sewer service fees have been reviewed by the State and are in compliance with the Guidelines.³¹

<u>City of Capitola Title 16.36.010 - Fees for Planned Drainage Facilities, Removal of Surface and Storm Waters, and</u> <u>Construction of Planned Sanitary Sewer Facilities</u>

Ordinance 483, Section 83, incorporates by reference government code 66483 which establishes the right of local governments to impose by ordinance a requirement for the payment of fees for purposes of defraying the actual or estimated costs of constructing planned drainage facilities for the removal of surface and storm waters from local or neighborhood drainage areas and of constructing planned sanitary sewer facilities for local sanitary sewer areas

Existing Conditions

Sanitary sewer service for the City of Capitola is provided under contract through the SCCSD. As discussed above, the SCCSD is a non-profit public agency which provides sewage collection, treatment, and disposal services to the Live Oak, Capitola, Soquel, and Aptos areas. The City of Capitola is not responsible for nor does it have the authority to maintain the sanitary sewers.

The SCCSD's customers generate approximately 5 to 6 mgd of wastewater. This wastewater flows to the Lode Street pre-treatment facility and is then pumped to the City of Santa Cruz wastewater treatment plant at Neary

³¹ SCCSD, 2013, Santa Cruz County Sanitation District 2013-2017 Capital Improvement Program.

Lagoon. The design capacity of this plant is 17 mgd of wastewater, while the current average flow is approximately 12 mgd.

The SCCSD is continually working to upgrade substandard sewer mains. As part of this program, which is funded through the assistance of grants (e.g., Clean Beach Fund), the County has conducted video surveillance of all sewer systems in Capitola in the vicinity of Soquel Creek and has replaced or repaired illicit or substandard connections. Planned improvements to the infrastructure that will serve the SCCSD's ratepayers in an efficient and cost effective manner, throughout the next 5+ years of growth and change, will be in accordance with the CIP 2013 – 2017 discussed above.

Wastewater (Sewer) Collection

According to a report prepared by the staff of the Santa Cruz Local Agency Formation Commission³² the entire collection system of the SCCSD contains 201.41 miles of sanitary sewer pipeline. 187.66 miles of pipeline are gravity mains, and 13.75 miles are force mains. The SCCSD operates 37 sanitary sewer pump stations. The main pump station along the transmission main is located at the D. A. Porath Wastewater Facility at 2750 Lode Street off 27th Avenue in Live Oak. That facility pretreats sewage from the SCCSD before it is pumped to the City of Santa Cruz plant for treatment.

As noted, the current SCCSD CIP identifies and prioritizes needs and project costs, under the direction of the SCCSD's Board of Directors, for planned improvements to the infrastructure for the period from 2013 - 2017. Among the future projects described in the current CIP are:

- Capitola Avenue Sewer Bay Avenue to Village. The existing line is old and deteriorating. The project is to replace a sewer collection line and improve the undersized sewer system. The planned expenditure schedule is 2014/2015. The estimated cost is \$600,000. The funding source is the SCCSD.
- Jewel Box and Venetian Sewer. The existing line is old and deteriorating. The project is to replace 10,600 linear feet of sewer line. The planned expenditure schedule is 2014/2015. The estimated cost is \$1,000,000. The funding source is the SCCSD.
- Park Avenue and Wesley Street Sewer. The existing line is old and deteriorating. The project is to replace 2,220 linear feet of sewer line. The planned expenditure schedule is 2012/2013. The estimated cost in 2012/2013 is \$2,973,933. The funding source is the SCCSD.
- Soquel Pump Station Force Main Replacement. The 34-year-old facility is at the end of its useful life. The project is to replace the Force Main from Soquel Pump Station to Soquel Warf Road. The planned expenditure schedule is 2012/2013. The estimated cost in 2012/2013 is \$2,400,000. The funding source is the SCCSD.

³² Santa Cruz Local Agency Formation Commission (Staff Report), 2011, 2011 Santa Cruz County Sanitation District Sphere of Influence Review.

- Capitola Road Extension. The existing sewer line is old and deteriorating. The project is to replace 1,380 linear feet of sewer line. The planned expenditure schedule is 2015/2016. The estimated cost is \$300,000. The funding source is the SCCSD.
- Upper Capitola Village Sewer Replacement. The existing sewer lines are old, deteriorating, and/or inaccessible. The project is to replace 3,840 linear feet of sewer line northeast of Riverview. The planned expenditure schedule is 2016/2017. The estimated cost is \$800,000. The funding source is the SCCSD.
- 42nd Avenue Sewer Replacement Clares Street to Capitola Road. The sewer line is old and deteriorating. The project is to replace 1,690 linear feet of sewer line. The planned expenditure schedule is 2017+. The estimated cost is \$700,000. The funding source is the SCCSD.
- Hill Street/Capitola Avenue Area Sewer. The sewer line is old, deteriorating, and located in an inaccessible location. The planned expenditure schedule is 2017+. The estimated cost is \$500,000. The funding source is the SCCSD.

Worn out and antiquated facilities will continue to be repaired or replaced in a timely manner in order to protect the public health and safety, in accordance with future CIPs. These future CIP reports will identify and describe future (2017+, and beyond) specific sanitary sewer projects for pump stations, transmission lines and collector lines.

The purpose of the SCCSD is to construct and maintain pipelines transporting waste from the SCCSD to the Santa Cruz City Treatment Plant at Neary Lagoon, as well as to provide instruction, services, and monitoring for environmental compliance. Toward these ends, as noted, the SCCSD's Environmental Compliance Unit conducts programs to educate residents, professionals, and business owners about the proper use of their sewer and drainage systems in order to help preserve their own, as well as the SCCSD's, facilities and to help protect the environment.

Wastewater (Sewer) Treatment and Disposal

The SCCSD pretreats and transmits all sewage to the City of Santa Cruz for treatment and disposal. Effluent is discharged via an ocean outfall into Monterey Bay – a National Marine Sanctuary. The SCCSD has treatment capacity rights for 8 mgd of treatment out of the plant's dry weather treatment capacity of 17 mgd. The SCCSD's contract with the City of Santa Cruz requires SCCSD to pay for $^{8}/_{17}$ (47 percent) of treatment modifications. Operational and maintenance costs are split based upon a formula that includes flow, biological oxygen demand, and suspended solids.

The City of Santa Cruz's 2009 Wastewater Treatment Report shows the SCCSD is utilizing approximately 4 mgd of treatment, or half of its dry weather capacity.³³ The City of Santa Cruz reported no incidence of treatment plant performance failure in 2009. Under the NPDES permit issued by the RWQCB for the treatment facility, the

³³ Santa Cruz Local Agency Formation Commission (Staff Report), 2011, 2011 Santa Cruz County Sanitation District Sphere of Influence Review.

maximum peak wet weather flow for the plant is 81 mgd, and the maximum dry weather flow for the plant is 17 mgd.

4.14.2.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact on wastewater service if it would:

- 1. Exceed wastewater treatment requirements of the applicable RWQCB.
- 2. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- 3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

4.14.2.3 ENVIRONMENTAL IMPACT DISCUSSION

UTIL-4 The proposed Plan would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).

Sanitary wastewater treatment requirements are established in the NPDES Permit (Order No. R3-2010-0043) issued December 9, 2010 to the city of Santa Cruz by the Central Coast RWQCB. The NPDES Order sets out a framework for compliance and enforcement applicable to operation of the plant and its effluent, as well as those contributing influent to the plant. This NPDES Order currently allows dry weather discharges of up to 17 mgd. The NPDES Permit also indicates average monthly influent flow ranged from 8.1 to 13.9 mgd and averaged 9.2 mgd in 2009. The Order further indicates average monthly effluent flow ranged between 7.1 and 12.5 mgd and averaged 8.1 mgd in 2009. As the discharger named in the NPDES Permit, the City of Santa Cruz, as well as the SCCSD, implements and enforces a pretreatment program for effluent discharged into Monterey Bay. The SCCSD's Environmental Compliance Unit conducts programs to educate residents, professionals, and business owners about the proper use of their sewer and drainage systems in order to help preserve their own, as well as the SCCSD's, facilities and to help protect the environment.

In the case of continued compliance with applicable regulations listed below, projected wastewater generated from potential future development under the Plan would not exceed the wastewater treatment requirements or capacity of the SCCSD and the City of Santa Cruz treatment plant. Therefore, the wastewater treatment requirements of the Central Coast RWQCB would not be exceeded from buildout of the proposed Plan, resulting in a *less-than-significant* impact.

Applicable Regulations:

- NPDES Permit (Order No. R3-2010-0043)
- SCCSD and City of Santa Cruz sewer system and treatment plant Ordinances and wastewater pretreatment requirements

Significance Before Mitigation: Less than significant.

UTIL-5 The proposed Plan would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Buildout of the proposed Plan would have a significant impact if it results in the construction of new wastewater treatment facilities or expansion of existing facilities.

The projected wastewater generation rate at buildout would be approximately 1.11 mgd, as shown in Table 4.14-9, which would be an increase of approximately 30,000 gallons from current flow rates. This projection is based on the 2010 baseline gross per capita water use rate in the 2010 SqCWD UWMP without accounting for anticipated savings due to conservation and other factors. The SCCSD is currently operating at approximately 50 percent of its treatment capacity rights at the City of Santa Cruz treatment plant at Neary Lagoon. Adding 30,000 gallons at buildout to the existing demand of 4 mgd, the SCCSD would still be using only about 50 percent of its allotted plant capacity. Therefore, the Plan buildout would not exceed the SCCSD's wastewater treatment capacity rights at the City of Santa Cruz treatment plant at Neary Lagoon. Adding 30,000 gallons at buildout to the existing demand of 4 mgd, the Plan buildout would not exceed the total dry weather capacity rights at the City of Santa Cruz treatment plant. Similarly, the Plan buildout would not exceed the total dry weather capacity of 17 mgd for the Santa Cruz plant and would not require expansion of the facility.

In summary, the SCCSD and the Santa Cruz Treatment plant both have sufficient capacity to accommodate new development in the Plan Area. As described above, the SCCSD CIP 2013 – 2017 includes adequate collection system improvements to support future growth and development in its service area for the period covered by the current CIP (2017+). Future CIPs will address system improvements to support growth and development beyond 2017+. Furthermore, all existing and new users of the sewer system will continue to be required to pay appropriate sewer service and connection fees to ensure adequate funds to make any necessary improvements to the sewer system in future years. For example, the current CIP included a revenue study that called for a 2.7 percent to 3.7 percent overall increase in sewer service and connection charges over the ensuing 3 years to ensure adequate revenue for debt service on existing and planned improvement projects.

In addition, the proposed Plan contains goals, policies, and actions that would serve to ensure environmental sustainability in general, including sustainable utilization of wastewater facilities. These policies include:

- Policy OSC-1.4 Regional Partnerships. Continue to work with neighboring cities, Santa Cruz County, the Association of Monterey Bay Area Governments (AMBAG), and other governmental agencies to promote sustainability throughout the region.
- Policy OSC-1.5 New Development. Encourage all new development projects in Capitola to incorporate sustainable building techniques.

TABLE 4.14-9 PROJECTED WASTEWATER GENERATION RATES IN CAPITOLA PLAN AREA – WITHOUT ANTICIPATED SAVINGS

Parameter	Baseline	2035	Increase
Population – Capitola	9,918	10,198	280
Per Capita Gross Water Use ^a – gpd	109	109	0.0
Total Capitola Wastewater Generation – mgd	1.08	1.11	0.03
Unused Wastewater Treatment Capacity ^b – mgd	4.00	3.97	-0.03

a. Source; Soquel Creek Water District, 2010, Urban Water Management Plan, Table 4-1. Per capita afy (0.122 afy) has been converted to per capita gallons per day (109 gpd). The Baseline per capita gross water usage value above is SqCWD's baseline per capita water usage value for SqCWD's service area. The 2035 per capita gross water usage value above is conservatively assumed to be unchanged from the Baseline year; without accounting for any of the anticipated cumulative savings estimated by SqCWD in its 2010 UWMP, which uses a semi-quantitative forecasting evaluation referred to as "Social, Economic, Political, Technological" or "SEPT." Using this methodology would result in an additional 15% water savings estimated for 2010 through 2030.

b. Based on Santa Cruz Local Agency Formation Commission, 2011 Santa Cruz County Sanitation District Sphere of Influence Review (staff report), May 2011, that indicates only half, or 4 of 8 mgd, of SCCSD's allocated capacity for wastewater treatment was being utilized in 2009.

- Action OSC-1.2 Education Partnerships. Form partnerships with local schools and community organizations to support programs aimed at teaching young people about environmental stewardship.
- Action OSC-9.1 Greywater. Evaluate opportunities to develop and implement a greywater reclamation system for landscaping and other non-potable water uses for domestic, commercial, and industrial consumers. Encourage households and new developments to implement greywater reclamation systems.

Also, any future collection system improvements or expansion of existing facilities would require permitting and review in accordance with CEQA, which would ensure that any environmental impacts are disclosed and mitigated to the maximum extent practicable. This Draft EIR is a programmatic document and does not evaluate the environmental impacts of any project-specific development. Also, as mentioned above, the proposed Plan contains several policies directing the City to ensure the development and provision of an efficient sanitary sewer system and adequate wastewater treatment and sewer infrastructure capacity. Since it is unknown at this time exactly where or when new facilities will be constructed or existing facilities expanded, the specific related environmental impacts, if any, cannot be determined at this time.

Applicable Regulations:

- SCCSD Capital Improvement Plan and SCCSD Ordinances
- City of Capitola and SCCSD Development Review Process Fees
- SCCSD Service Fees and Connection Charges

Overall, because future development under the proposed Plan would not substantially impact the capacity of the wastewater treatment system, and because the SCCSD facilities would be maintained and/or modified/expanded to accommodate future growth in the service areas as needed, the future development under the proposed Plan would not require the construction of new wastewater treatment facilities. Therefore, the proposed Plan would have a *less-than-significant* impact on wastewater treatment service.

Significance Before Mitigation: Less than significant.

UTIL-6 The proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Buildout of the proposed Plan would have a significant impact if future projected demand exceeds the SCCSD's wastewater service capacity. As discussed above, future demands from the proposed Plan would not exceed the capacity of the SCCSD or the City of Santa Cruz wastewater treatment plant at Neary Lagoon. The potential impacts to the SCCSD's collection system would be addressed through applicable policies and measures as identified above (UTIL-5). In addition, the payment of fees in compliance with the SCCSD's and the City of Capitola's development review process would ensure that demands from individual projects in the Plan Area would not impact the SCCSD's wastewater treatment service. As a result, the impact would be *less than significant*.

Applicable Regulations:

None

Significance Before Mitigation: Less than significant.

4.14.2.4 CUMULATIVE IMPACT DISCUSSION

UTIL-7 The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to wastewater.

This section analyzes potential impacts to sanitary wastewater that could occur from the Plan in combination with reasonably foreseeable growth within the USD service area.

Buildout of the Plan would minimally increase the volume of wastewater entering the SCCSD's collection system and delivered for treatment at the City of Santz Cruz treatment plant at Neary Lagoon. This increase represents only a small percentage (less than 1 percent) of the available treatment capacity and it would occur incrementally over a period of 20 years. The SCCSD currently has approximately 50 percent excess allotted wastewater treatment capacity. Cumulative wastewater treatment demand over the proposed Plan buildout period – based on projected population growth (on the order of 5 percent) in the District's service area – is far below this excess capacity. Because the cumulative demand would not substantially impact the existing or planned capacity of the SCCSD's wastewater collection and treatment system, the construction of new wastewater treatment facilities would not be necessary.

Additionally, individual development projects under the proposed plan would be subject to the development review process and the payment of appropriate fees to mitigate any effects to wastewater treatment services on a project-by-project basis. Future development would also be required to comply with all applicable regulations and ordinances protecting wastewater treatment services.

As previously stated, the SCCSD and the City of Santa Cruz – the discharger named in the NPDES Permit – shall implement and enforce a pretreatment program for effluent discharged into Monterey Bay – a National Marine Sanctuary. Consequently, wastewater from cumulative projects would be treated according to the wastewater treatment requirements enforced by the Central Coast RWQCB. Therefore, cumulative projects would be less than significant.

Applicable Regulations:

- NPDES Permit
- SCCSD Capital Improvement Plan and Ordinances
- SCCSD Connection Charges and Service Fees
- City of Capitola and SCCSD Development Review Process
- City of Capitola Title 16.36.010

Significance Before Mitigation: Less than significant.

4.14.2.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to wastewater service and therefore no mitigation measures are required.

4.14.3 STORMWATER DRAINAGE

This section describes the potential impacts of the proposed Plan on drainage facilities.

4.14.3.1 ENVIRONMENTAL SETTING

Regulatory Framework

This section briefly describes the regulatory setting with regard to stormwater drainage in Capitola. Please refer to Section 4.7, Hydrology and Water Quality, of this Draft EIR, for a detailed description of the regulatory setting.

Federal and Regional Regulations

Clean Water Act and National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4s).

State Water Resources Control Board and Regional Water Quality Control Board

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs.

Statewide MS4 Phase II General Permit (Water Quality Order No. 2013-0001 DWQ effective July 1, 2013)

The California SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2013-0001 DWQ effective July 1, 2013) for Small Municipal Separate Storm Sewer System (MS4s) operators to efficiently regulate stormwater discharges under a single permit.³⁴

The previously existing statewide general permit for MS4 operators (including Capitola) – Order No. 2003-0005-DWQ – has been supplanted by the new 2013 Order. This previous (2003) permit required permittees develop and implement a Stormwater Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable. The new Order (2013) eliminates the requirement of submittal for review and approval of an SWMP; however, the requirement to develop a planning/guidance document has been retained for new Permittees.³⁵

Capitola is covered under the regulations of the new Municipal Regional Stormwater NPDES Permit (MRP) issued by the RWQCB. As noted, this Permit falls under Order No. 2013-0001 DWQ, effective July 1, 2013. The municipalities covered under this permit have to require both private and public projects to implement post-construct stormwater controls as part of their obligations. Above and beyond post-construction stormwater management practices, the permit also requires municipalities to adopt trash and street sweeping programs to regulate discharges into storm drain systems or directly into waters of the United States.

SWRCB Construction General Permit

Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (2009-0009-DWQ, which was amended by 2010-0014-DWQ in 2010 and 2012-006-DWQ in 2012).³⁶ Under the terms of the permit, applicants must file Permit Registration Documents (PRDs), including a Notice of Intent (NOI), risk assessment, annual fee, and a signed certification statement with the SWRCB. Applicants must also demonstrate conformance with applicable best management practices (BMPs) and prepare a Storm Water Pollution Prevention Plan (SWPPP) containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection, discharge points, and general topography both before and after construction, as well as drainage patterns across the project site. The operative Construction General Permit requires stormwater pollution

³⁴ State Water Resources Control Board, Order No. 2013-0001-DWQ, http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/phsii2012_5th/order_final.pdf, accessed on September 8, 2013.

³⁵ State Water Resources Control Board, 2013, Fact Sheet for Order No. 2013-0001-DWQ.

³⁶ State Water Resources Control Board, 2013, http://www.swrcb.ca.gov/water_issues/programs/stormwater/ constpermits.shtml, accessed on September 8, 2013.

prevention controls, including the imposition of minimum BMPs and the development and implementation of Rain Event Action Plans for certain sites.

Local Regulations

County of Santa Cruz and City of Capitola Stormwater Management Program

Stormwater Management Program (SWMP) builds on locally popular efforts to preserve and enhance Santa Cruz County watersheds and is the County of Santa Cruz and the City of Capitola's response to the statewide NPDES General Permit requirements for agencies designated by the SWRCB. The Storm Water Management Section within the Santa Cruz County Public Works Department coordinates compliance with the EPA's NPDES regulations to satisfy the CWA requirements. The goal of the EPA program is to "preserve, protect, and improve the Nation's water resources from polluted storm water runoff." Under this program the County and the City of Capitola jointly were required to develop BMPs to address the following six control measures/programs:

- Public Involvement/Participation
- Public Education and Outreach
- Illicit Connection/Discharge Detection and Elimination
- Construction Site Discharge Control
- New Development/Redevelopment Storm Water Management
- Pollution Prevention and Good Housekeeping for Municipal Operations

The County of Santa Cruz and the City of Capitola, led by the County Storm Water Management unit and Environmental Health Services watershed staff, submitted the draft SWMP and application for a Phase II permit to the State Water Resources Control Board (SWRCB) in October 2008. As noted, the SWMP is a joint project of Santa Cruz County and the City of Capitola; each agency pursues its own local stormwater pollution prevention activities and also contributes support to a region-wide effort.

The SWMP was approved by the Central Coast RWQCB on March 19, 2009, at which time permit coverage was granted under the statewide NPDES Phase II Municipal Separate Storm Sewer System Permit Water Quality Order No. 2003-0005-DWQ.

Year one of coverage under the *new* State General Permit Order No. 2013-001-DWQ began July 1, 2013. The County did submit a Notice of Intent and Guidance Document to the State Water Resources Control Board in June 2013 in order to receive coverage under the new General Permit. Therefore, County stormwater management activities planned for the year 2013 and the remainder of the permit cycle will meet the minimum requirements in the new General Permit except where BMPs from the County's SWMP are more protective of water quality than the minimum requirements – in these cases the County will continue implementation of the more protective BMPs as detailed in its Guidance Document.³⁷

³⁷ County of Santa Cruz, 2013, Small MS4 General Permit Annual Report (Draft).

Santa Cruz County Flood Control and Water Conservation District

The Santa Cruz County Flood Control and Water Conservation District (District), a Special District operated through the County Public Works, Planning, and Environmental Health Departments, performs a broad range of services related to the monitoring of water conditions and control of surface waters. The facilities within Zone 5, which encompasses Capitola, include underground storm drain systems and above ground ditches and water courses. The District has experienced flooding events of varying magnitudes in each zone. The flooding in the creeks is the most serious because of the flow and the potential for debris to block the watercourse. In urban areas, overflowing ditches and plugged drop inlet grates are the primary concern. The District has developed a Capital Improvement Plan that addresses infrastructure needs within three of the zones, including Zone 5. Projects are implemented as funding is available.

City of Capitola Stormwater Pollution Prevention and Protection Ordinance

On July 25, 2013, the City adopted the Stormwater Pollution Prevention and Protection Ordinance which establishes regulations regarding illicit discharges to protect water quality.

City of Capitola Local Hazard Mitigation Plan

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 a Local Hazard Mitigation Plan (LHMP). This LHMP assists Capitola in reducing vulnerability to disasters by identifying critical facilities, resources, information, and strategies for risk reduction, while helping to guide and coordinate mitigation actions. Flooding is one of the specific hazards addressed in the LHMP.

Existing Conditions

The Santa Cruz County Flood Control and Water Conservation District provides flood protection and stormwater drainage for Santa Cruz County, the four cities in the County (Scotts Valley, Santa Cruz, Capitola, and Watsonville), and two independent special districts. The City of Capitola maintains its street drainage systems and relies on the County to provide major storm drain services through the Santa Cruz County Flood Control & Water Conservation District Zone 5. The infrastructure associated with flood protection and stormwater drainage includes underground systems, above ground drainage ditches and water courses, pump stations, catch basins, and outfalls. Five storm drain outfalls discharge stormwater into Soquel Creek. Three outfalls flow directly to the beach and four outfalls discharge stormwater onto the coastal cliffs (three on Grand Avenue and one on Cliff Drive). Storm drainage from most of the 41st Avenue area flows to a Santa Cruz County flood control drainage basin near 38th Avenue/Brommer Street and then flows into Moran Lake, north and west of Capitola.

Flooding is a high priority safety issue in Capitola, particularly in the Village. During a heavy storm in March 2011, major flooding in the Village occurred when Noble Gulch overwhelmed its drainage pipe that extends under the former Pacific Cove Mobile Home Park, causing significant damage to homes and businesses. This storm event and the failed drainage pipe vividly demonstrate the potential risks and vulnerability of flooding in the Village.

Storm events such as this occur relatively frequently and create flooding risks for the Village. Flows associated with large storm events often result in significant amounts of vegetation debris, including trees and limbs, blocking flows, particularly at the Stockton Bridge, further exacerbating flood conditions.

In the past, Capitola also has experienced minor intersection flooding which was corrected through maintenance. In 2002, the City received a grant from the SWRCB for \$100,000 to prepare a storm drain master plan for the Village area to identify key components to water quality and to design and build dry weather diversions. As part of this effort, the City constructed the Lawn Way pump station in 2004 to alleviate localized flooding.

In 2008, the City constructed a biofiltration treatment wetland on ¹/₄-acre of city-owned property adjacent to Soquel Lagoon to treat stormwater to assist with water quality improvement in the Lagoon.

The City of Capitola prepared a Draft Stormwater Management Plan in 2008. This plan contains policies and measures to implement BMPs related to drainage infrastructure, including outfall inspection and cleaning, annual storm drain cleaning in the fall, and zero discharge sidewalk cleaning. Due to limited funding and staffing resources, the City faces several challenges in the future including developing an accurate map of the drainage systems, implementing the Soquel Creek Lagoon Management Plan, and improving water quality in Soquel Creek.

In addition, in the Soquel Creek watershed, steelhead (Oncorhynchus mykiss) populations have declined in recent years while coho salmon (Oncorhynchus kisutch) have been extirpated.³⁸ The causes of steelhead decline and coho extirpation are due to numerous mechanisms including declines in the quality and quantity of in-stream habitat, localized increases in water temperature – in part due to historic losses of riparian vegetation, increased sediment loading from historic land uses and more recent episodic events, and the occurrence of low base-flow sometimes resulting in no flow conditions in lower parts of the Soquel Creek watershed mainstem.

4.14.3.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact on drainage facilities if it would:

1. 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.

4.14.3.3 ENVIRONMENTAL IMPACT DISCUSSION

UTIL-8 The proposed Plan would not 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.

³⁸ Santa Cruz County Resource Conservation District (RCD), 2003, Soquel Creek Watershed Protection and Enhancement Plan.

Future development under the proposed Plan would cause significant impacts if it would result in an increase in stormwater runoff to an extent that would require construction of new storm water drainage facilities or expansion of existing facilities.

Development under the proposed Plan has the potential to increase stormwater runoff associated with construction activities and create impermeable surfaces, thereby placing greater demands on the stormwater drainage system. Runoff from developed surfaces, building roofs, parking lots, and roads also contains impurities and has the potential to increase flooding. However, as described above, the County and City SWMP and associated Guidance Document and BMPs are designed to minimize runoff impurities and volume. The new MS4 NPDES General Permit (Order No. 2013-0001 DWQ) has specific site design and low impact development (LID) requirements for all projects. The LID requirements emphasize landscape-based site design features that are already required elsewhere (e.g., the landscape water use efficiency ordinances and laws at the local and state level; see Section 4.14.1.1). This Order also incorporates a baseline peak flow matching requirement for hydromodification control. During this permit term, the SWRCB will work towards developing runoff retention and hydromodification control criteria that are keyed to watershed processes. In addition, the Order focuses on an assessment of the performance of the Permittee's BMPs, especially structural practices designed for specific pollutant/flow reductions. Moreover, construction projects that disturb one or more acres of land would be required to comply with the requirements of the SWRCB Construction General Permit. Project applicants would prepare a SWPPP and implement BMPs to prevent excessive stormwater runoff from construction activity. As a result of the measures described above, buildout under the proposed Plan would not substantially increase either the volume or the velocity of stormwater flowing into the existing storm drain system.

In addition, the Plan proposes the following goals, policies, and actions to minimize impacts to the stormwater system:

- Policy OSC-6.7 Regional Collaboration. Continue to participate in regional, State, and federal programs to protect biological resources in Capitola and the Monterey Bay region.
- Policy OSC-7.1 Riparian Landscaping. Require landscaping for new developments along creeks or in wetlands to be native riparian vegetation.
- Policy OSC-7.2 Soquel Creek. Continue to work with the California Department of Fish and Game and other regulatory agencies to ensure adequate water flows to support a healthy riparian habitat and permanent fishing resources in Soquel Creek.
- Policy OSC-7.3 Creek Alterations. Prohibit channelizations or other substantial alterations of creeks and streams except for the following:
 - Necessary water supply projects where no feasible alternative exists.
 - Maintenance or enhancement of water supply.
 - Flood protection for existing development where there is no other feasible alternative.
 - The improvement of fish and wildlife habitat.
- Policy OSC-7.4 Creek Alteration Impacts. Require permitted channelizations or stream alterations to minimize impacts to coastal resources, including the depletion of groundwater, and to maximize feasible mitigation measures to mitigate unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection

over "hard" solutions such as concrete or riprap channels. Any creek alteration shall conform to the City's Stormwater Pollution and Protection Ordinance and any applicable state and federal regulations.

- Policy OSC-7.5 Creek Restoration. Restore culverted or buried channels to their natural state wherever feasible.
- Action OSC-7.1 Riparian Plant List. Develop a native riparian plant list for landscaping along creeks and in wetlands.
- Policy OSC-8.1 Creek Areas. Maintain creek beds, riparian corridors, water courses, and associated vegetation in their natural state to assist groundwater percolation and prevent erosion and downstream sedimentation.
- Policy OSC-8.2 Non-Point Source Pollution. Minimize, avoid, or eliminate non-point source pollution by controlling stormwater runoff, polluted dry weather runoff, and other pollution, in compliance with Capitola's National Pollutant Discharge Elimination System (NPDES) Permit and Stormwater Management Plan.
- Policy OSC-8.3 Best Management Practices. Require all new development, public and private, to meet or exceed State stormwater requirements and incorporate best management practices to treat, infiltrate, or filter stormwater runoff and reduce pollutants discharged into the storm drain system and surrounding coastal waters during construction and post-construction, to the maximum extent practicable.
- Policy OSC-8.4 Landscaping and Re-Vegetation. Require landscaping and re-vegetation of graded or disturbed areas for new development.
- Policy OSC-8.5 Native Plants. Encourage the use of native plants in landscaping to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation, and to be in compliance with Stormwater Pollution Prevention Plans.
- Policy OSC-8.6 City Properties. Design, construct, and maintain City properties in a manner that maximizes water quality protection through:
 - Designing new and renovated landscaped and paved areas that suit site conditions, protect water quality, and support sustainable maintenance.
 - Using drought-tolerant native and non-invasive plant species.
 - Incorporating Low Impact Development design techniques.
 - Practicing the principles of integrated pest management.
 - Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments.
- Policy OSC-8.7 Regional Collaboration. Continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Soquel Creek watershed. Participate in efforts to reduce stormwater and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs.
- Policy OSC-8.8 Drainage Plans. Require new development to protect the infiltration, purification, and retentive functions of natural systems that exist on the site. Drainage plans shall be designed to complement and utilize existing drainage patterns and systems, providing drainage for the developed area in a non-erosive manner.

- Policy OSC-8.9 Impervious Surfaces. Require all new development to minimize the creation of new impervious surfaces and reduce unused impervious surfaces. Prohibit post-project peak stormwater runoff discharge rates from exceeding the estimated pre-project rate.
- Action OSC-8.1 Stormwater Infrastructure. Develop a priority list and timeline for public stormwater drainage infrastructure improvements for all neighborhoods in Capitola.
- Action OSC-8.2 Funding for Stormwater Management. Identify funding sources to upgrade existing inadequate stormwater facilities and address on-site retention of contaminants.
- Action OSC-8.3 Stormwater Management Program. Update Capitola's Stormwater Pollution Prevention and Protection Ordinance as necessary to be consistent with State requirements.
- Policy OSC-9.2 Drought-Tolerant Landscaping. Utilize native, drought-tolerant plants for all City landscaping activities.
- Action OSC-9.4 Incentives. Encourage water districts to develop incentive programs for the use of droughttolerant landscaping and recycled water for landscape irrigation.
- Goal SN-1. Reduce hazards associated with flooding or inundation.
- Policy SN-1.3 Site Drainage. Require new development to incorporate storm drainage systems that minimize erosion and control the rate and amount of runoff so that development does not increase downstream flooding potential.
- Policy SN-1.5 Storm Drainage Infrastructure. Improve and maintain City storm drainage infrastructure in a manner that minimizes public exposure to flood hazards.
- Policy SN-1.6 Riparian Corridors. Maintain healthy riparian corridors in Capitola to reduce stormwater runoff and increase flood protection.
- Policy SN-1.7 Public Outreach. Actively share information about flood hazards with Capitola residents, property owners, and merchants. Coordinate these public outreach efforts with the Santa Cruz County Public Works Department and the Santa Cruz County Flood Control and Water Conservation District (Zone 5).
- Policy SN-1.10 Regional Coordination. Participate in regional, State, and federal efforts to reduce flooding hazards, including efforts to maintain creeks and other waterways, address flood hazards on a watershed level, and respond to increased flooding hazards from sea level rise.
- Action SN-1.2 Regional Coordination. Continue to work with the Santa Cruz County Public Works Department and the Santa Cruz County Flood Control and Water Conservation District (Zone 5) to 1) plan for improvements to stormwater facilities to help minimize flooding impacts, particularly in critical floodprone areas, and 2) evaluate the effectiveness of current policies and ordinances to ensure that stormwater runoff from impervious surfaces does not contribute to flooding.
- Action SN-1.3 Drainage System Mapping. Develop accurate GIS maps of the City's drainage system in coordination with future updates of the Capitola Stormwater Management Program.

Furthermore, as described above, Santa Cruz County's 2012/2013 CIP addresses existing drainage deficiencies, and future CIPs will accommodate future development, in Zone 5 of the Flood Control and Water Conservation District.

With the proposed General Plan Policies, the County and City SWMP, and the RWQCB MS4 permit provisions in place, future potential development under the Plan would not substantially increase demands on the stormwater drainage system. Based on the County's CIPs, stormwater facilities would be upgraded and expanded, as necessary to support future development in Capitola. As a result, a *less-than-significant* impact would occur on stormwater facilities.

Applicable Regulations:

- RWQCB MS4 permit provisions
- Santa Cruz County and City of Capitola Stormwater Management Program
- Santa Cruz County Capital Improvement Program

Significance Before Mitigation: Less than significant.

4.14.3.4 CUMULATIVE IMPACT DISCUSSION

UTIL-9 The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to stormwater facilities.

This section analyzes potential impacts to stormwater systems that could occur from the proposed Plan in combination with other reasonably foreseeable projects in the surrounding area. The geographic area considered for the cumulative analysis is Zone 5 in the Santa Cruz County Flood Control and Water Conservation District service area.

With implementation of the policies and stormwater control requirements described above, future development under the proposed Plan would not substantially increase either the volume or the velocity of stormwater flowing into the storm sewer system. In the case of implementation of the proposed Plan policies, and continued compliance with County and City Stormwater Management Program and RWQCB MS4 permit provisions, other cumulative projects would also not substantially increase demands on the stormwater handling system. Additionally, based on the Santa Cruz County CIPs stormwater facilities would be upgraded and expanded as necessary to support development in Capitola. Therefore, the proposed Plan, in combination with other reasonably foreseeable projects, would not create or contribute runoff exceeding the capacity of the storm sewer system, and would not result in the need for new or expanded storm sewer infrastructure. Associated cumulative impacts would be *less than significant*.

Applicable Regulations:

- RWQCB MS4 permit provisions
- Santa Cruz County and City of Capitola Stormwater Management Program
- Santa Cruz County Capital Improvement Programs

Significance Before Mitigation: Less than significant.

4.14.3.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The proposed Plan would not result in any significant project-specific or cumulative impacts to stormwater facilities and therefore no mitigation measures are required.

4.14.4 SOLID WASTE

This section describes existing conditions related to solid waste disposal services and the potential impacts of the proposed Plan.

4.14.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

State Regulations

California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. To help achieve this, the act requires that each city and county prepare a Source Reduction and Recycling Element (SRRE) to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), a new department within the California Natural Resources Agency, which administers programs formerly managed by the State's Integrated Waste Management Board and Division of Recycling.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is calculated as a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capital disposal rate.³⁹

In 2011, Assembly Bill 341 was passed, which sets a State policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020. CalRecycle must submit a report to the legislature by January 1, 2014 outlining the strategy that will be used to achieve this policy goal.

³⁹ California Integrated Waste Management Board, http://www.calrecycle.ca.gov/LGCentral/Basics/PerCapitaDsp.htm #Jurisdiction, accessed on November 1, 2011.

California Solid Waste Reuse and Recycling Access Act of 199140

The California Solid Waste Reuse and Recycling Access Act of 1991 required California Department of Resources Recycling and Recovery (CalRecycle) to develop by March 1, 1993 a model ordinance for adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, that establishes standards that include space allocation for the collection and loading of recyclable materials in new development projects by September 1, 1993.

Mandatory Commercial Recycling Measure⁴¹

Pursuant to the California Global Warming Solutions Act of 2006 which set the 2020 greenhouse gas (GHG) emissions reduction into law, the Air Resources Board (ARB) adopted the Assembly Bill 32 Scoping Plan, which includes the Mandatory Commercial Recycling Measure. The Mandatory Commercial Recycling Measure focuses on increasing commercial waste diversion as a way to reduce GHG emissions. Its goal is to reduce GHG emissions by 5 million metric tons of carbon dioxide (CO₂) equivalents. To achieve the measure's objective, an additional 2 to 3 million tons of materials annually will need to be recycled from the commercial sector by the year 2020 and beyond.

CalRecycle adopted the regulation at its January 17, 2012 Monthly Public Meeting. The regulation was approved by the Office of Administrative Law on May 7, 2012 and became effective immediately. On June 27, 2012 the Governor signed Senate Bill 1018, which included an amendment that requires businesses that generate 4 cubic yards or more of commercial solid waste per week or a multifamily residential dwelling with five or more units to arrange for recycling services. This requirement became effective on July 1, 2012. Businesses or multi-family residential dwellings can meet this requirement by:

- Self-haul.
- Subscribe to a hauler.
- Arrange for pickup of the recyclable materials.
- Subscribe to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation.

CALGreen Building Code

The California Green Building Standards Code (CALGreen Code) went into effect for all projects beginning after January 1, 2011. Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The Code requires that all applicants have a waste management plan for on-site sorting of construction debris. The plan:

 Identifies the materials to be diverted from disposal by recycling, reuse on the project, or salvage for future use or sale.

⁴⁰ CalRecycle, http://www.calrecycle.ca.gov/LGCentral/Library/localdocs/policy.htm, accessed on April 15, 2013.

⁴¹ CalRecycle, http://www.calrecycle.ca.gov/climate/recycling/, accessed on January 30, 2013.

- Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identifies the diversion facility where the material collected will be taken.
- Identifies construction methods employed to reduce the amount of waste generated.
- Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

Local Policies and Regulations

Santa Cruz County Integrated Waste Management Plan⁴²

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) was passed due to concerns about increases in waste and a decrease in landfill capacity. As noted, AB 939 mandated jurisdictions to divert 50 percent of their landfill waste by the year 2000. The Act (AB 939) also requires that each county adopt a Countywide Integrated Waste Management Plan (CIWMP) to provide structure and guidance for waste management programs on a countywide basis. The Santa Cruz CIWMP includes an analysis of Santa Cruz County demographics and population. The CIWMP serves as the planning document to ensure that the mandated 50 percent reduction in the amount of solid waste disposed in landfills by the year 2000 level is maintained and efforts continue for further waste reduction. The CIWMP incorporates the following solid waste planning documents for the County and each of the four cities (Santa Cruz, Watsonville, Capitola, and Scotts Valley):

- Source Reduction and Recycling Element
- Non-disposal Facility Element
- Household Hazardous Waste Element
- Countywide Siting Element
- Summary Plan

The Santa Cruz County CIWMP was approved by the California Integrated Waste Management Board in March 1999. A complete review of the CIWMP is required every 5 years to assure that the underlying assumptions are still valid and there has been no major change in demographics or waste generation. Solid waste services within Santa Cruz County range from curbside collection and recycling to transfer/diversion and landfill operations. The Cities of Santa Cruz and Watsonville directly provide trash collection and recycling within city limits; each city owns and operates its own landfill. The County and the Cities of Capitola and Scotts Valley contract for trash collection and recycling services with a private hauler. The County has established County Service Area (CSA) 9C for this purpose. Waste from the unincorporated areas of the County and Scotts Valley is directed to the Buena Vista Landfill which is owned and operated by the County of Santa Cruz. Capitola's waste is directed to the Monterey Regional Waste Management District (Marina Landfill) in Monterey County. The four cities and the County all have active recycling and waste stream reduction programs.

⁴² Santacruzcountyrecycles.org., 2013, http://www.dpw.co.santa-cruz.ca.us/www.santacruzcountyrecycles/About/index.html, accessed September 8, 2013.
Existing Conditions

Since 2007, the City of Capitola has a franchise agreement with Green Waste Recovery for the collection of refuse, recycling, yard waste, and commercial food waste. Green Waste Recovery provides weekly collection of garbage, recyclable materials, and yard trimmings for residences located in the City of Capitola. Materials are placed out for collection in three containers – garbage, single-stream recycling, and yard trimmings. Once placed curbside, materials are collected in a dual compartment vehicle, with garbage and yard trimmings co-collected in one side of the vehicle and recyclables kept separate in the other side of the vehicle. The commercial food waste collection program is collected three days a week and brought to Marina to be composted.

Solid Waste

Solid waste collected in Capitola is transferred to the Monterey Peninsula Class III Landfill located in the City of Marina (Marina Landfill), 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 landfill covers 475 acres and is comprised of both unlined and lined disposal areas. The landfill serves as a regional disposal facility with a service area that includes the cities of Capitola, Carmel, Del Rey Oaks, Marina, Monterey, Pacific Grove, Sand City, Seaside, and numerous unincorporated communities in Monterey County. The district also receives waste from more distant areas such as the cities of Watsonville, Santa Cruz, Gilroy, and Morgan Hill. 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 cy) (based on capacity utilization factor of 0.54 tons per cubic yard) and has an anticipated closure date of 2107.

Recycling

The City of Capitola is very committed to recycling and sponsors recycling collection service through its Refuse, Recycling and Yard Waste Collection Franchise Agreement with Green Waste Recovery. Through increased efforts of the community and the staff, the City is currently recycling 66 percent of its refuse from the landfill, which exceeds the State of California mandate that the City achieve a diversion rate of 50 percent (see below). Recycling collection is part of a comprehensive service package available to any resident or business of the City. Unlimited recycling collection is included in the cost of refuse collection. The City uses a single bin for recycling. These bins are "single stream," which allows all recyclable material to go into one bin with Green Waste Recovery sorting the materials.

Recyclable materials collected in the City of Capitola are brought to Green Waste Recovery's Operations and Transfer Facility in Watsonville, where they are consolidated and transferred to the Green Waste Recovery's Material Recovery Facility (MRF) in San Jose for processing. Recyclable materials are sorted on the single-stream recyclables processing line at the MRF where they are separated by material type, baled and shipped to market to be given new life as a recycled product. All yard trimmings are delivered to the Buena Vista Landfill in Santa Cruz County, where they are screened for processing. The woody debris is chipped and used as a co-generation fuel, and the lightweight fraction is composted and used as a high-quality soil amendment.

Hazardous Waste

The Santa Cruz County Hazardous Waste Program is sponsored by the County of Santa Cruz and the Cities of Watsonville, Scotts Valley, Capitola, and Santa Cruz. Household hazardous waste is collected, free of charge, at one of three locations throughout Santa Cruz County for members of the 93C service area, of which Capitola is not a member; therefore, Capitola residents must pay for disposal at the gate. The closest facility to Capitola is the Buena Vista Landfill located approximately 15 miles south of Capitola off Buena Vista Drive.

4.14.4.2 STANDARDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, the proposed Plan would have a significant impact on solid waste disposal if it would:

- 1. Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- 2. Be out of compliance with federal, State, and local statutes and regulations related to solid waste.

4.14.4.3 ENVIRONMENTAL IMPACT DISCUSSION

UTIL-10 The proposed Plan would be served by a landfill with sufficient permitted capacity to accommodate the Plan's solid waste disposal needs.

The proposed Plan would result in a significant impact if solid waste disposal needs from the proposed Plan result in insufficient landfill capacity.

As described above, the Marina Landfill (Monterey Peninsula Class III Landfill), located in the City of Marina in Monterey County, has a remaining waste capacity of approximately 40 million tons and an expected closure date of 2107.⁴³ In 2010, the City of Capitola disposed of approximately 8,000 tons of solid waste in the landfill,⁴⁴ which is equivalent to about 3.5 percent of the 230,000 tons per year (tpy) the landfill receives from the general public and commercial haulers. Using CalRecycle's 2010 calculated per capita waste generation rates for Capitola and assuming that buildout of the proposed Plan would result in 280 residents, Table 4.14-10 shows the amount of solid waste that would be generated annually in the Plan Area at buildout in 2035.

This represents approximately 230 tpy more waste generated by the City of Capitola and disposed of in the landfill in 2035 than in the baseline year (2010). Capitola generates a small percentage (3.5 percent) of the total amount of yearly waste disposed in the Monterey Peninsula Class III Landfill in Marina, and the small increase in the amount of waste generated within the City of Capitola by the year 2035 would not be significant. The above calculations

⁴³ Central Coast RWQCB, 2006, Adoption of WDR Order R3-2006-0017, for the Monterey Peninsula Class III Landfill, Marina.

⁴⁴ Calrecycle, 2013, Calrecycle Diversion Rate Calculator, http://www.calrecycle.ca.gov/lgcentral/Reports/jurisdiction/ diversiondisposal.aspx, accessed September 8, 2013.

Parameter	Baseline	2035	Increase
Residents – Capitola	9,918	10,198	280
Residential Disposal Rate (pounds/person/day) ^a	4.5	4.5	
Calculated Capitola Disposal Rate (tpy)	8,145	8,375	230

TABLE 4.14-10 PROJECTED SOLID WASTE GENERATION RATES IN PLAN AREA

a. Disposal rate of 4.5 pounds/day/person for residents was obtained from CalRecycle website – Online Disposal Rate Calculator.

are environmentally conservative in that they do not assume any greater source reduction, recycling, and diversion rates in 2035 than exist now. In addition, the Marina Landfill has a remaining life of 40 million tons with a predicted closure date of 2107. Therefore, the landfill would have sufficient capacity to accommodate the Plan's solid waste disposal needs through 2035.

In addition, the proposed Plan contains the following goal, policies, and actions that would serve to minimize potential impacts

- Goal OSC-11. Reduce solid waste originating in Capitola.
- Policy OSC-11.1 Solid Waste Diversion. Work with Green Waste Recovery to increase community diversion of solid waste to 60 percent by 2020.
- Policy OSC-11.2 City Diversion Rate. Increase the City government waste diversion rate to 75 percent by expanding reduction, recycling, and composting programs; practicing reuse; conducting waste audits; and promoting the purchase of environmentally friendly office products.
- Policy OSC-11.3 Demolition Material Recycling. Continue to require mandatory recycling of building demolition materials.
- Policy OSC-11.4 Building Design. Encourage building designs that minimize waste and consumption in construction projects.
- Policy OSC-11.5 Recycling and Composting Space. Require adequate and convenient space for recycling and composting in all buildings.
- Policy OSC-11.6 Reusable Goods. Encourage the use of reusable, returnable, recyclable, and repairable goods through incentives, educational displays and activities, and City purchasing policies and practices.
- Policy OSC-11.7 Consumption/Waste Reduction. Encourage the reduction of waste and consumption from household and business activities in Capitola through public outreach and education activities.
- Policy OSC-11.8 Recycling at Events. Require recycling at all public events.
- Action OSC-11.1 Diversion Incentives. Identify and implement financial incentives to households and businesses to reduce the volume of solid waste sent to the landfill.

- Action OSC-11.2 Restaurant Waste. Evaluate the feasibility of adopting a restaurant food waste reduction program or ordinance. Based on the results of this evaluation, adopt such a program or ordinance, as appropriate.
- Action OSC-11.3 Recycled Asphalt Pavement. Encourage the use of recycled asphalt pavement (RAP) for commercial and community parking lots.
- Action OSC-11.4 City Purchasing Policies. Amend the City's purchasing policies to promote the use of reusable, returnable, recyclable, and repairable goods.

Applicable Regulations:

- California Integrated Waste Management Act
- Mandatory Commercial Recycling Measure
- CALGreen Building Code
- Santa Cruz County Integrated Waste Management Plan

In summary, the Marina Landfill (Monterey Peninsula Class III Landfill) would have sufficient capacity to accommodate the Plan's solid waste disposal needs. With the applicable State and local solid waste reduction regulations in place, buildout of the Plan would result in a *less-than-significant* impact with regard to landfill capacity.

Significance Before Mitigation: Less than significant.

UTIL-11 The proposed Plan would comply with federal, State, and local statutes and regulations related to solid waste.

The proposed Plan would result in a significant impact if the proposed Plan would not comply with federal, State, and local statutes and regulations related to solid waste.

As previously described, the City of Capitola is currently meeting the target per capita disposal rates set forth by CalRecycle. Capitola's residential disposal rate in 2011 was 4.3 pounds of waste per person per day, well below the target rate of 6.3.⁴⁵ Development under the proposed Plan could have a significant impact if it results in exceeding these target per capita disposal rates. However, as discussed above (UTIL-10), the proposed Plan includes goals and policies to comply with State requirements and to reduce the volume of solid waste through source reduction and recycling of solid waste.

In addition to the State requirements, the Santa Cruz and Monterey County solid waste management authorities, as well as the City of Capitola, have adopted specific programs, objectives, and strategies to continue to meet and exceed applicable diversion rates.⁴⁶ Therefore, associated impacts would be *less than significant*.

⁴⁵ CalRecycle, 2013, http://www.calrecycle.ca.gov/, accessed on September 8, 2013.

⁴⁶ Calrecycle, 2013, Calrecycle Diversion Rate Calculator, http://www.calrecycle.ca.gov/lgcentral/Reports/jurisdiction/ diversiondisposal.aspx, accessed September 8, 2013.

Applicable Regulations:

- California Integrated Waste Management Act
- Mandatory Commercial Recycling Measure
- CALGreen Building Code
- County Integrated Waste Management Plan
- City of Capitola's 35 Waste Diversion Programs⁴⁷

Significance Before Mitigation: Less than significant.

4.14.4.4 CUMULATIVE IMPACT DISCUSSION

UTIL-12 The Plan, in combination with past, present, and reasonably foreseeable development, would result in less than significant cumulative impacts with respect to solid waste.

This section analyzes potential impacts to solid waste services that could occur from a combination of the proposed Plan with other reasonably foreseeable projects in the surrounding area. The geographic scope of this cumulative analysis is taken to be the service area for Monterey Peninsula Class III Landfill. While buildout of the Plan Area would result in an increase in solid waste generation under conservative assumptions, as shown in Table 4.14-10, the increase for the buildout year (2035) is minimal (219 tpy), due to waste source reduction and diversion programs that include recycling, composting, mandatory construction and demolition (C&D) debris recycling, and mandatory commercial recycling. In 2011, the City of Capitola transported approximately 7,800 tons to the Landfill, which is less than 3.5 percent of the total 230,000 tons received by the Marina Landfill in 2006.⁴⁸ In addition, Marina Landfill had a remaining capacity of 40 million tons as of 2006 and anticipates that the landfill will remain open until 2107.

The proposed Plan would not make a significant contribution to cumulative impacts relating to solid waste management or disposal and cumulative impacts would be *less than significant*.

Applicable Regulations:

- California Integrated Waste Management Act
- Mandatory Commercial Recycling Measure
- CALGreen Building Code
- County Integrated Waste Management Plan
- City of Capitola's 35 Waste Diversion Programs

⁴⁷ Calrecycle, 2013, Calrecycle Diversion Rate Calculator, http://www.calrecycle.ca.gov/lgcentral/Reports/jurisdiction/ diversiondisposal.aspx, accessed September 8, 2013.

⁴⁸ Central Coast RWQCB, 2006, Adoption of WDR Order R3-2006-0017, for the Monterey Peninsula Class III Landfill, Marina.

Significance Before Mitigation: Less than significant.

4.14.4.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

The Plan would not result in any significant Plan-specific or cumulative impacts to solid waste and therefore no mitigation measures are required.

This chapter evaluates the potential for land use changes within the proposed Plan to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because individually no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate-change-related impacts of a project are considered on a cumulative basis.

The analysis in this section is also based upon the Capitola 2010 GHG Inventory report provided by the Association of Monterey Bay Area Governments (AMBAG), which is included as Appendix E to this Draft EIR.

4.15.1 ENVIRONMENTAL SETTING

Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.^{1,2,3} The major GHG are briefly described below.

- Carbon dioxide (CO₂) enters the atmosphere through the burning of fossil fuels (i.e., oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- Methane (CH4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.
- Nitrous oxide (N₂O) is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

¹ Intergovernmental Panel on Climate Change, 2001, Third Assessment Report: Climate Change 2001.

 $^{^{2}}$ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (i.e., vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

³ Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (California Air Resources Board, 2013).

- Fluorinated gases are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global warming potentials (GWP) gases.
- Chlorofluorocarbons (CFCs) are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (i.e., troposphere and stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
- Perfluorocarbons (*PFCs*) are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF4] and perfluoroethane [C2F6]) were introduced as alternatives, along with HFCs, to ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.
- Sulfur hexafluoride (SF₆) is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF₆ is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
- Hydrochlorofluorocarbons (HCFCs) contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.
- Hydrofluorocarbons (HFCs) contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs.^{4,5,6}

Table 4.15-1 lists the GHG applicable to the proposed Plan and their relative GWPs compared to CO₂.

California's Greenhouse Gas Sources and Relative Contribution

California is the second largest emitter of GHG in the United States, only surpassed by Texas, and the tenth largest GHG emitter in the world.⁷ However, California also has over 12 million more people than the state of Texas. Because of more stringent air emission regulations, in 2001 California ranked fourth lowest in carbon

⁴ United States Environmental Protection Agency (US EPA), 2012, Greenhouse Gas Emissions, http://www.epa.gov/ climatechange/ghgemissions/gases.html, accessed on October 24, 2013.

⁵ Intergovernmental Panel on Climate Change, 2001, *Third Assessment Report: Climate Change 2001*.

⁶ Intergovernmental Panel on Climate Change, 2007, Fourth Assessment Report: Climate Change 2007.

⁷ California Energy Commission, 2005, Climate Change Emissions Estimates from Bemis, Gerry and Jennifer Allen, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2002 Update*. California Energy Commission Staff Paper CEC-600-2005-025.

GHGs	Atmospheric Lifetime (Years)	Global Warming Potential Relative to CO _{2^a}
Carbon Dioxide (CO ₂)	50 to 200	1
Methane (CH ₄) ^b	12 (±3)	21
Nitrous Oxide (N ₂ O)	120	310
Hydrofluorocarbons:		
HFC-23	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
Perfluoromethane: CF4	50,000	6,500
Perfluoroethane: C ₂ F ₆	10,000	9,200
Perfluorobutane: C ₄ F ₁₀	2,600	7,000
Perfluoro-2-methylpentane: C ₆ F ₁₄	3,200	7,400
Sulfur Hexafluoride (SF6)	3,200	23,900

TABLE 4.15-1 GREENHOUSE GASES AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO₂

a. Based on 100-Year Time Horizon of the GWP of the air pollutant relative to CO₂. Intergovernmental Panel on Climate Change, 2001, *Third Assessment Report:* Climate Change 2001.

b. The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

Source: Intergovernmental Panel on Climate Change, 2001, Third Assessment Report: Climate Change 2001.

emissions per capita, and fifth lowest among states, in CO₂ emissions from fossil fuel consumption per unit of Gross State Product (i.e., total economic output of goods and services).⁸

CARB's latest update to the statewide GHG emissions inventory was conducted in 2012 for year 2009 emissions.⁹ In 2009, California produced 457 million metric tons (MMT) of CO₂-equivalent (CO₂e) GHG emissions. California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the State's total emissions. Electricity consumption is the second largest source, comprising 22.7 percent. Industrial activities are California's third largest source of GHG emissions, comprising 17.8 percent of the State's total emissions. Other major sectors of GHG emissions include commercial and residential, recycling and waste, high global warming potential GHGs, agriculture, and forestry.^{10,11}

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and climate change pollutants that are attributable to human activities. The amount of CO_2 has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to the combustion of fossil fuels and deforestation.¹² These recent changes in climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants.¹³

Climate-change scenarios are affected by varying degrees of uncertainty. IPCC's 2007 IPCC Fourth Assessment Report projects that the global mean temperature increase from 1990 to 2100, under different climate-change scenarios, will range from 1.4 to 5.8 degrees Celsius (°C) (2.5 to 10.4 degrees Fahrenheit [°F]). In the past, gradual changes in the Earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic timeframe but within a human lifetime.¹⁴

⁸ California Energy Commission, 2006, Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004. Report CEC-600-2006-013-SF.

⁹Methodology for determining the Statewide GHG inventory is not the same as the methodology used to determine Statewide GHG emissions under Assembly Bill 32 (AB 32), 2006.

¹⁰ CO₂-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

¹¹ California Air Resources Board (CARB), 2011, California Greenhouse Gas Inventory for 2000–2009.

¹² Intergovernmental Panel on Climate Change, 2007, Fourth Assessment Report: Climate Change 2007.

¹³ California Climate Action Team, 2006, Climate Action Team Report to Governor Schwarzenegger and the Legislature.

¹⁴ Intergovernmental Panel on Climate Change, 2007, Fourth Assessment Report: Climate Change 2007.

Potential Climate Change Impacts for California

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures, 2) a smaller fraction of precipitation is falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of 5 to 30 days earlier in the springs, and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms.¹⁵ According to the California Climate Action Team (CAT), even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 4.13-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 4.15-2 and include public health impacts, water resources impacts. Specific climate change impacts that could affect the proposed Plan include health impacts from a reduction in air quality, water resources impacts from a reduction in water supply, increased energy demand, and flooding due to sea level rise (see Chapter 4.7, Hydrology and Water Quality).

4.15.1.2 REGULATORY FRAMEWORK

Federal Laws and Regulations

The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009 that GHG emissions threaten the public health and welfare of the American people, and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.¹⁶

The EPA's endangerment finding covers emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world (the first three are applicable to the proposed Plan).

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (e.g., large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO₂ per year are required to submit an annual report.

¹⁵ California Climate Action Team, 2006, *Climate Action Team Report* to Governor Schwarzenegger and the Legislature.

¹⁶ United States Environmental Protection Agency (US EPA), 2009, *EPA: Greenhouse Gases Threaten Public Health and the Environment.* Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity, http://yosemite.epa.gov/opa/admpress.nsf/0/08D11A451131BCA585257685005BF252, accessed on October 24, 2013.

Impact Category	Potential Risk
Dublic Health Incomente	Poor air quality made worse
Public Health Impacts	More severe heat
	Decreasing Sierra Nevada snow pack
Water Deseurces Impacts	Challenges in securing adequate water supply
Water Resources impacts	Potential reduction in hydropower
	Loss of winter recreation
	Increasing temperature
	Increasing threats from pests and pathogens
Agricultural Impacts	Expanded ranges of agricultural weeds
	Declining productivity
	Irregular blooms and harvests
	Accelerated sea level rise
Coastal Soa Lovel Impacts	Increasing coastal floods
Coasial Sea Level Impacts	Shrinking beaches
	Worsened impacts on infrastructure
	Increased risk and severity of wildfires
	Lengthening of the wildfire season
	Movement of forest areas
	Conversion of forest to grassland
Forest and Biological Resource Impacts	Declining forest productivity
	Increasing threats from pest and pathogens
	Shifting vegetation and species distribution
	Altered timing of migration and mating habits
	Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower
Liferyy Demanu inipacis	Increased energy demand

TABLE 4.15-2	SUMMARY OF GHG EMISSION RISKS TO CALIFORNIA
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Sources: California Energy Commission, 2006, Our Changing Climate, Assessing the Risks to California 2006 Biennial Report, California Climate Change Center, CEC-500-2006-077; California Energy Commission, 2008, The Future Is Now, An Update on Climate Change Science, Impacts, and Response Options for California, CEC-500-2008-0077.

State Regulations

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Assembly Bill 32, and Senate Bill 375.

Executive Order S-03-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-03-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010.
- 1990 levels by 2020.
- 80 percent below 1990 levels by 2050.

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Assembly Bill 32 (AB 32), the Global Warming Solutions Act. AB 32 was passed by the California State legislature on August 31, 2006, to place the State on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05.

AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 MMTCO₂e. In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO₂e (471 million tons) for the State. The 2020 target requires a total emissions reduction of 169 MMTons, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5 percent of 596 MMTCO₂e).^{17,18}

In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT of CO₂ per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions.

CARB 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. Key elements of CARB's GHG reduction plan that may be applicable to the proposed Plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress).
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020).
- A California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system for large stationary sources (adopted 2011).

¹⁷ California Air Resources Board (CARB), 2008, Climate Change Scoping Plan, a Framework for Change.

¹⁸ CARB defines Business as Usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted).
- Adopting and implementing measures pursuant to State laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (LCFS) (adopted 2009).¹⁹
- Creating target fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation (in progress).

Table 4.15-3 shows the proposed reductions from regulations and programs outlined in the 2008 Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of 5 MMTCO₂e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments play in the successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of today's levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target.²⁰ Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer vehicle miles traveled (VMT).²¹

Update to the 2008 Scoping Plan

Since the release of the 2008 Scoping Plan, CARB has updated the statewide GHG emissions inventory to reflect GHG emissions in light of the economic downturn and of measures not previously considered in the 2008 Scoping Plan baseline inventory. The updated forecast predicts emissions to be 507 MMTCO₂e by 2020. The new inventory identifies that an estimated 80 MMTCO₂e of reductions are necessary to achieve the statewide emissions reduction of AB 32 by 2020, 15.7 percent of the projected emissions compared to BAU in year 2020 (i.e., 15.7 percent of 507 MMTCO₂e).

¹⁹ On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoined the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Ninth Circuit Court granted CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision. In a separate case, on July 15, 2013, the State of California Court of Appeal, Fifth Appellate District, issued its opinion in *POET, LLC v. California Air Resources Board*. The Court held that the LCFS would remain in effect and that the CARB can continue to implement and enforce the 2013 regulatory standards while it corrects certain aspects of the procedures by which the LCFS was originally adopted.

²⁰ While the Scoping Plan references a goal for local governments to reduce community GHG emissions by 15 percent from current (interpreted as 2008) levels by 2020, the Scoping Plan does not rely on local GHG reduction targets established by local governments to meet the State's GHG reduction target of AB 32. Table 5.6-3 lists the recommended reduction measures, which do not include additional reductions from local measures.

²¹ California Air Resources Board (CARB), 2008, Climate Change Scoping Plan, a Framework for Change.

Recommended Reduction Measures	Reductions Counted Toward 2020 Target of 169 MMTCO ₂ e	Percentage of Statewide 2020 Target
CAP AND TRADE PROGRAM AND ASSOCIATED MEASURES		Ŭ
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets ^a	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
OTHER RECOMMENDED MEASURES – NOT COUNTED TOWARD 2020 TARGET		
State Government Operations	1.0 to 2.0	1%
Local Government Operations ^b	To Be Determined ^b	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

TABLE 4.15-3 Scoping Plan Greenhouse Gas Reduction Measures and Reductions toward 2020 Target

Notes: The percentages in the right-hand column add up to more than 100% because the emissions reduction goal is 169 MMTons and the Scoping Plan identifies 174 MMTons of emissions reductions strategies. MMTCO₂e = million metric tons of CO₂e

a. Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

b. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO₂e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 target.

Source: California Air Resources Board, 2008, Climate Change Proposed Scoping Plan, a Framework for Change.

CARB is in the process of completing a 5-year update to the 2008 Scoping Plan, as required by AB 32. A discussion draft of the 2013 Scoping Plan was released on October 1, 2013. The 2013 Scoping Plan update defines CARB's climate change priorities for the next 5 years and lays the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012. The update includes the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants. The GHG target identified in the 2008 Scoping Plan is based on IPCC's global warming potentials (GWP) identified in the Second and Third Assessment Reports (see Table 5). IPCC's Fourth Assessment Report identified more recent GWP values based on the latest available science. As a result, CARB recalculated the 1990 GHG emission levels with these updated GWPs. Using the new GWPs, the 427 MMTCO₂e 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, would be slightly higher, at 431 MMTCO₂e.²²

The 2013 update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As identified in the 2013 Scoping Plan update, California is on track to meet the goals of AB 32. However, the 2013 Scoping Plan also addresses the State's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the State to adopt a mid-term target. According to the 2013 Scoping Plan update, reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit.²³

Senate Bill 375

In 2008, Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excluding emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.²⁴ AMBAG is the MPO for the Monterey Bay Area.

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide individual jurisdictions with growth strategies that, when taken together, achieve the regional GHG emissions reduction targets. The SCS does not require that local

²² California Air Resources Board (CARB), 2013, Climate Change Scoping Plan First Update: Discussion Draft for Public Review and Comment.

²³ California Air Resources Board (CARB), 2008, Climate Change Proposed Scoping Plan, a Framework for Change.

²⁴ California Air Resources Board (CARB), 2010, *Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for* Automobiles and Light Trucks Pursuant to Senate Bill 375.

general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency to governments and developers.

In 2011, AMBAG completed a regional vision plan entitled *Envisioning the Monterey Bay Area: A Blueprint for Sustainable Growth and Smart Infrastructure*, commonly referred to as "The Blueprint." The Metropolitan Transportation Plan is the federally mandated long-range transportation plan for the Monterey Bay Area. This plan lays out a financially constrained list of transportation projects over the following 25 years that will enhance regional mobility as well as reduce GHG emissions. In accordance with the schedule outlined by CARB, AMBAG is anticipating adoption of a new Metropolitan Transportation Plan that incorporates the requirements of SB 375 in June 2014.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles.

Executive Order S-01-07

On January 18, 2007, the State set a new Low Carbon Fuel Standard (LCFS) for transportation fuels sold within the State. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The LCFS applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Executive Order B-16-2012

On March 23, 2012, the State identified that CARB, the CEC, CPUC, and other relevant agencies work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support zero-emissions vehicles (e.g., electric vehicle charging stations). The Executive Order also identifies that the number of its zero-emission vehicles in California's State vehicle fleet increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles be zero-emission by 2015 and at least 25 percent of fleet purchases of light-duty vehicles be zero-emission sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

Senate Bills 1078 and 107 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. CARB has now approved an even higher goal of 33 percent by 2020. In 2011, the State legislature adopted this higher standard in SBX1-2. Executive Order S-14-08 was signed in November 2008, which expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

California Building Code

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (Title 24, Part 6, of the California Code of Regulations [CCR]).²⁵ Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which go into effect on January 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.²⁶ The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. While these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

²⁵ Although new building energy efficiency standards were adopted in April 2008, these standards did not go into effect until 2009.

²⁶ The green building standards became mandatory in the 2010 edition of the code.

4.15.1.3 EXISTING CONDITIONS

2010 Greenhouse Gas Emissions Inventory

In 2012, the City of Capitola had 9,918 people and 6,170 jobs Based on this demographic profile, the communitywide GHG emissions inventory generated by land uses within the City, provided by AMBAG, is summarized in Table 4.15-4.

TABLE 4.15-4 2010 COMMUNITY-WIDE GHG EMISSIONS INVENTORY FOR THE CITY OF CAPITOLA

	2010, Existing Community-Wide	Emissions (MTCO ₂ e/Year)
Pollutant	MTCO ₂ e	Percent
Electricity Consumption	12,776	15%
Stationary Fuel Combustion	16,049	18%
Transportation and Mobile Sources	57,123	65%
Solid Waste	1,476	2%
Water Treatment and Distribution	667	<1%
Total Community Emissions	88,091	100%

Source: Association of Monterey Bay Area Governments (ABAG), 2013.

4.15.2 THRESHOLDS OF SIGNIFICANCE

4.15.2.1 CEQA THRESHOLDS

According to Appendix G of the CEQA Guidelines, GHG impacts associated with the proposed Plan would be considered significant if the Plan would:

- 1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

4.15.2.2 MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT

The City of Capitola is located in the North Central Coast Air Basin (NCCAB), which consists of Monterey, Santa Cruz, and San Benito counties. The NCCAB is managed by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). It is responsible for regulating stationary, indirect, and area sources of pollution within the NCCAB. On February 20, 2013 MBUAPCD brought forth a proposed recommendation to their Board on the adoption of GHG thresholds for the District. For stationary sources for which MBUAPCD is the lead agency,

MBUAPCD recommended a threshold of 10,000 MTCO₂e per year. For land use projects for which MBUAPCD is a commenting agency under CEQA, MBUAPCD recommended the following approach:

- Complies with a qualified GHG emissions reduction strategy, or
- Meets 2,000 MTCO₂e/year.²⁷

4.15.3 IMPACT DISCUSSION

Methodology

The analysis below is based on the Community-wide GHG Emissions Inventory for the City of Capitola prepared by AMBAG using ICLEP's U.S. Community GHG Emissions Protocol.

- **Electricity Consumption:** Based on use of electricity in the community.
- Stationary Fuel Combustion: Based on use of fuel in residential and commercial stationary equipment AND use of industrial stationary combustion sources.
- Transportation and Mobile Sources: Based on on-road vehicles associated with land uses in the City of Capitola. VMT was modeled by RBF Consulting using an origin-destination method. Other mobile sources include off-road surface vehicles and other mobile equipment operating within the city.
- Solid Waste: Based on the generation and disposal of solid waste by residents and businesses within Capitola using data provided by CalRecycle.
- Water Treatment and Distribution: Based on energy associated with use of potable water by the community and use of energy associated with the generation of wastewater by the community. In addition, wastewater includes process emissions associated with wastewater generation.

This section discusses the cumulative impacts of the proposed Plan on GHGs generated in the Plan Area. This discussion is organized by and responds to each of the CEQA thresholds listed in 4.15.2.1 above. Individually, no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate-change–related impacts of a project are considered on a cumulative basis.

GHG-1 Buildout of the City of Capitola would generate GHG emissions that would significantly contribute to global climate change impacts in California.

Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate

²⁷ Monterey Bay Unified Air Pollution Control District. 2013, "Receive an informational report on the status of developing greenhouse gas emissions thresholds for evaluating projects under the California Environmental Quality Act (CEQA) and provide direction to staff on next steps."

change is, by definition, a cumulative environmental impact. The State of California, through its governor and its legislature, has established a comprehensive framework for the substantial reduction of GHG emissions over the next 40 years or so. This will occur primarily through the implementation of AB 32, Executive Order S-3-05, and SB 375, which will address GHG emissions on a statewide cumulative basis.

Development under the General Plan would contribute to global climate change through direct and indirect emissions of GHG from land uses within the city. The community-wide BAU GHG emissions inventory for the City in 2035 compared to existing conditions is included in Table 4.15-6. The BAU inventory does not include reductions from federal and State GHG reduction measures passed since passage of AB 32 (e.g., Pavley fuel efficiency standards, LCFS, Building and Energy Efficiency Standards).

As shown in Table 4.15-6, compared to the City's existing emissions inventory, Capitola would experience an increase of 3,869 MTCO₂e of GHG emissions in 2035 in the absence of GHG reduction measures. Consequently, GHG emissions in the city would exceed 2,000 MTCO₂e threshold proposed by the MBUAPCD and impacts would be *significant*.

Applicable Regulations:

- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- AB 32: California Global Warming Solutions Act
- SB 375: Sustainable Communities Strategies
- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations: Appliance Energy Efficiency Standards
- Title 17 California Code of Regulations: Low Carbon Fuel Standard
- AB 1881: California Water Conservation in Landscaping Act of 2006
- SB 1368: Statewide Retail Provider Emissions Performance Standards
- SB 1078: Renewable Portfolio Standards
- Title 24, Part 6, California Code of Regulations: Building and Energy Efficiency Standards
- Title 24, Part 11, California Code of Regulations: Green Building Standards Code

Significance Before Mitigation: Significant.

GHG-2 The proposed Plan would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

The City has not yet adopted a qualified GHG reduction plan and AMBAG has not yet released its SCS. However, CARB adopted the 2008 Scoping Plan to identify statewide strategies to achieve the GHG reduction targets of AB 32. In addition, AMBAG has prepared a Regional Energy Plan.

CAPITOLA			
Pollutant	2010 MTCO ₂ e	2035 BAU MTCO₂e	Change from 2010 MTCO ₂ e
Electricity Consumption	12,776	14,082	1,306
Stationary Fuel Combustion	16,049	17,689	1,640
Transportation and Mobile Sources	57,123	57,986	863
Solid Waste	1,476	1,517	863
Water Treatment and Distribution	667	686	19
Total Community Emissions	88,091	91,960	3,869
Threshold	NA	NA	2,000
Exceeds Threshold	NA	NA	Yes

TABLE 4.15-6 2035 GENERAL PLAN BUSINESS AS USUAL COMMUNITY-WIDE GHG EMISSIONS INVENTORY FOR CAPITOL A

Source: Association of Monterey Bay Area Governments (ABAG), 2013.

CARB 2008 Scoping Plan

In accordance with AB 32, CARB developed the 2008 Scoping Plan to outline the State's strategy to achieve 1990 level emissions by year 2020. To estimate the reductions necessary, CARB projected statewide 2020 BAU GHG emissions (i.e., GHG emissions in the absence of statewide emission reduction measures). CARB identified that the State as a whole would be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32.²⁸ The revised BAU 2020 forecast shows that the State would have to reduce GHG emissions by 21.6 percent from BAU without Pavley and the 33 percent RPS or 15.7 percent from the adjusted baseline (i.e., with Pavley and 33 percent RPS).²⁹

Statewide strategies to reduce GHG emissions include the LCFS, California Appliance Energy Efficiency regulations; California Building Standards (i.e., CALGreen and the 2013 Building and Energy Efficiency Standards); 33 percent RPS; changes in the corporate average fuel economy standards (e.g., Pavley I and California Advanced Clean Cars [Pavley II]); and other measures that would ensure the State is on target to achieve the GHG emissions reduction goals of AB 32. Statewide GHG emissions reduction measures that are being implemented over the next 7 years would reduce the City's GHG emissions. New residential and nonresidential construction in the city would achieve the current building and energy efficiency standards. The new buildings would be constructed in conformance with CALGreen, which requires high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems. Furthermore, all landscaping installed would be required to adhere to the

²⁸ California Air Resources Board (CARB), 2008, Climate Change Scoping Plan, a Framework for Change.

²⁹ California Air Resources Board (CARB), 2012, *California Greenhouse Gas Inventory for 2000-2009 – by Category as Defined by the Scoping Plan.* http://www.arb.ca.gov/cc/inventory/inventory.htm, accessed October 23, 2013.

City's Water Efficient Landscape Ordinance. Compliance with State and local regulations regarding energy and water efficiency would ensure that the growth under the General Plan does not conflict with the Scoping Plan.

The following policies and actions of the General Plan that would assist the City in reducing GHG emissions consistent with statewide GHG reductions goals. Impacts would be less than significant.

Land Use and Community Design Policies and Actions

- Policy LU-4.1 Quality of Life. Ensure residential neighborhoods are walkable, safe, friendly, and provide a high quality of life for residents of all ages. Minimize unwanted noise and spillover commercial parking in neighborhoods.
- Policy LU-4.2 Neighborhood Diversity. Support diverse and inclusive neighborhoods for residents of all ages and backgrounds.
- Policy LU-4.3 Existing Housing. Encourage the maintenance, rehabilitation, and improvement of the existing housing stock in Capitola.
- Policy LU-4.4 Public Facilities. Ensure that adequate public infrastructure, facilities, and services are maintained in residential neighborhoods.
- Policy LU-4.5 Neighborhood Amenities. Provide amenities within neighborhoods that support complete neighborhoods with unique identities.
- Policy LU-10.1 New Development. Ensure that new development enhances the design character of the district, strengthens existing businesses, and minimizes impacts on adjacent residential neighborhoods. New development should occur in a manner consistent with Figure LU-7.
- Policy LU-10.5 Recreation Access. Maintain, and where feasible, enhance access to Soquel Creek, Peery Park, and the non-vehicular bridge over Soquel Creek, which serves as an important link to natural open spaces, the Rispin property, the Capitola Library, and Capitola Mall.

Transportation Policies and Actions

- Policy LU-8.3 Metro Center Relocation. Support the relocation of the Metro Center to an alternative location on the Capitola Mall property that meets the operational requirements of Santa Cruz Metro and advances design goals for the Capitola Mall. Encourage the Metro Center to become a multi-modal facility with amenities for bicycles and integration with a possible future shuttle system in Capitola.
- Action LU-13.2 Safe Routes to Parks. Identify improvements needed to fill gaps in the City's sidewalk system and incorporate these improvements into the City's Capital Improvement Program.
- Policy MO-1.1 Responsive Transportation Services. Promote multimodal transportation services and facilities that are responsive to the needs of residents, businesses, and visitors.
- Policy MO-1.3 Regional Collaboration. Support regional efforts to increase alternatives to infrastructure, which reduce single occupant vehicle trips, conserve energy, and reduce air pollution.

- Action MO-2.4 Safe Routes to Schools. Establish a Safe Routes to School Program and work with local schools to make improvements that promote safe walking and bicycling to schools that serve Capitola residents.
- Action MO-3.2 Signal Timing. Update and maintain coordinated signal timing on traffic corridors, particularly on 41st Avenue.
- Policy MO-4.5 Parking Access. Promote efficient ingress and egress to and from parking areas and promote efficient internal circulation between adjacent parking areas to reduce congestion on roadways.
- Action MO-4.1 Bay Avenue Roundabout. Prepare a study and conduct outreach with business stakeholders and the public to evaluate the feasibility of constructing a roundabout at the intersection of Bay Avenue and Capitola Avenue.
- Policy MO-5.2 Parking Efficiency. Support the efficient use of land available for parking through shared parking, valet parking, parking lifts, and other similar methods.
- Policy MO-5.3 Parking Reductions. Consider reduced off-street parking requirements for mixed-use projects, transit-oriented development, and other projects that demonstrate a reduced demand for off-street parking.
- Policy MO-6.1 Traffic Congestion. Reduce traffic congestion on roadways within the Village, particularly during peak summer times.
- Policy MO-6.7 General Environment. Maintain an environment within the Village that prioritizes the safety and convenience of pedestrians and bicyclists.
- Action MO-6.1 Parking Technology. Develop and implement a real-time "intelligent traffic management" system to inform motorists of the availability and location of parking.
- Policy MO-7.1 Regional Cooperation. Support regional efforts to improve the availability, affordability, reliability, and convenience of public transportation service in Capitola.
- Policy MO-7.5 Commutes. Support regional efforts to increase the ability for Capitola residents to commute by public transportation to employment centers in Santa Cruz and Santa Clara County.
- Policy MO-8.2 Regional System. Ensure that the bikeways in Capitola are well integrated with existing and proposed regional bikeways in Santa Cruz County.

Economic Development Policies and Actions

- Policy LU-4.7 Planning Projects. Ensure that future planning efforts for non-residential areas carefully consider potential impacts on adjacent residential neighborhoods.
- Policy LU-13.9 Special Use Facilities. Support and encourage the location of special use recreation facilities, such as organic community gardens, dog parks, and skate parks, on available park or other public lands, where compatible with the existing and planned uses of surrounding properties.
- Policy ED-1.5 Local-Serving Commercial Areas. Maintain the Village, Bay Avenue, and Capitola Avenue as areas containing local, small-scale, and independent businesses.

- Policy ED-3.2 Sustainable Job Promotion. Support the growth of jobs in Capitola focused on increasing environmental sustainability and energy efficiency.
- Action ED-3.1 Green Building Ordinance. Periodically review and update Capitola's Green Building Ordinance as a tool to support sustainable jobs and businesses in Capitola. Consider repealing the Green Building Ordinance if it becomes redundant with Title 24 standards.

Green Building and Energy Efficiency Policies and Actions

- Action LU-1.1 Design Guidelines. Develop commercial and residential design guidelines that preserve Capitola as a unique coastal community and allow for development that will enhance the long-term economic viability of all of Capitola. Design Guidelines will address topics such as:
 - Unique characteristics and identity of specific residential neighborhoods.
 - Transitions between residential and non-residential land uses.
 - Sustainable building techniques.
 - Pedestrian-friendly commercial and mixed-use building design.
- Policy ED-3.2 Sustainable Job Promotion. Support the growth of jobs in Capitola focused on increasing environmental sustainability and energy efficiency.
- Policy OSC-4.6 Passive Solar Design. Encourage passive solar design in new development, in which window
 placement and building materials help to collect and maintain solar heat in the winter and reflect solar heat in
 the summer.
- Action OSC-4.3 Tree Protection Ordinance. Amend the Tree Protection Ordinance to allow solar access and passive solar design in new and existing development.
- Policy OSC-5.2 New Development Design. Encourage new development to incorporate energy-efficient design features for HVAC, lighting systems, and insulation that exceed Title 24 standards.
- Policy OSC-5.3 Public Outreach. Participate in the efforts of other regional, State, and federal agencies to provide outreach to residents, businesses, and property owners on programs, incentives, and regulations to increase energy efficiency.
- Policy OSC-5.4 Support for Energy Efficiency. Continue to support organizations that promote energy efficiency and offer assistance to residents and businesses that wish to increase their energy efficiency
- Policy OSC-5.5 Solar Orientation. Require new development to incorporate measures that reduce energy use through solar orientation by taking advantage of shade, prevailing winds, landscaping, and sunscreens.
- Policy OSC-5.6 City Staff Expertise. Ensure that all plan review and building inspection staff are knowledgeable about green building materials, techniques, and practices.
- Policy OSC-5.8 Budget for Reduction Measures. Conduct periodic energy audits of City facilities and include any feasible energy cost reduction measures in the annual budget.
- Action OSC-5.2 Green Building Ordinance. Periodically review and if needed amend Capitola's Green Building Ordinance to ensure effectiveness of the regulations relative to Title 24 standards.

 Action OSC-5.3 Green Business Program. Continue to make energy improvements to City facilities to maintain Capitola's certification from the Monterey Bay Green Business Program.

Renewable Energy Policies and Actions

- Policy OSC-4.1 On-Site Energy Generation. Encourage on-site energy generation in Capitola, including wind and solar, provided that significant adverse environmental impacts associated with such facilities can be mitigated.
- Policy OSC-4.2 Grid-Neutral Development. Encourage grid-neutral development that produces at least as much electricity as it consumes in a year.
- Policy OSC-4.3 Photovoltaic Panels. Encourage the installation of photovoltaic panels on new homes and businesses.
- Policy OSC-4.4 Solar Heaters. Encourage the use of solar water and pool heaters.
- Policy OSC-4.5 Solar Access. Protect existing development from the loss of solar access where possible.
- Action OSC-4.2 Community Choice Aggregation. Support the creation of Monterey Bay Community Choice Aggregation.
- Action OSC-4.3 Tree Protection Ordinance. Amend the Tree Protection Ordinance to allow solar access and passive solar design in new and existing development.

Water and Wastewater Policies and Actions

- Policy OSC-9.1 Water Use. Maximize the conservation and efficient use of water in new and existing residences and businesses.
- Policy OSC-9.3 Public Outreach. Work with water service providers, local non-profits, and other environmental organizations to educate the public about water issues and conservation measures.
- Action OSC-9.1 Greywater. Evaluate opportunities to develop and implement a greywater reclamation system for landscaping and other nonpotable water uses for domestic, commercial, and industrial consumers. Encourage households and new developments to implement greywater reclamation systems.
- Action OSC-9.2 City Conservation Goals. Establish water conservation goals for City buildings and operations.
- Action OSC-9.3 Water Efficiency Audits. Cooperate with water district efforts to require water efficiency audits at point of sale for commercial and residential properties and the use of water conserving plumbing fixtures in all new development permitted in Capitola.
- Action OSC-9.4 Incentives. Encourage water districts to develop incentive programs for the use of droughttolerant landscaping and recycled water for landscape irrigation.

Solid Waste Policies and Actions

- Policy OSC-11.2 City Diversion Rate. Increase the City government waste diversion rate to 75 percent by expanding reduction, recycling, and composting programs; practicing reuse; conducting waste audits; and promoting the purchase of environmentally friendly office products.
- Policy OSC-11.3 Demolition Material Recycling. Continue to require mandatory recycling of building demolition materials.
- Policy OSC-11.4 Building Design. Encourage building designs that minimize waste and consumption in construction projects.
- Policy OSC-11.5 Recycling and Composting Space. Require adequate and convenient space for recycling and composting in all buildings.
- Policy OSC-11.6 Reusable Goods. Encourage the use of reusable, returnable, recyclable, and repairable goods through incentives, educational displays and activities, and City purchasing policies and practices.
- Policy OSC-11.7 Consumption/Waste Reduction. Encourage the reduction of waste and consumption from household and business activities in Capitola through public outreach and education activities.
- Action OSC-11.2 Restaurant Waste. Evaluate the feasibility of adopting a restaurant food waste reduction program or ordinance. Based on the results of this evaluation, adopt such a program or ordinance, as appropriate.
- Action OSC-11.3 Recycled Asphalt Pavement. Encourage the use of recycled asphalt pavement (RAP) for commercial and community parking lots.
- Action OSC-11.4 City Purchasing Policies. Amend the City's purchasing policies to promote the use of reusable, returnable, recyclable, and repairable goods.

Open Space and Food Systems Policies and Actions

- Policy OSC-10.1 Local Food Promotion. Promote food grown locally in Santa Cruz County 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.
- Policy OSC-10.2 Outlets for Local Food. Encourage neighborhood grocery stores, farmers markets, and food
 assistance programs to increase their use of locally-grown and -prepared goods where feasible.
- Policy OSC-10.3 Serving Local Food. Encourage institutions, such as schools, government agencies, and businesses to serve foods produced locally and in the region.
- Policy OSC-10.5 Community Gardens. Support the establishment of community gardens and organic food production on appropriate public and private property.
- Action OSC-10.1 City Properties. Pursue opportunities that become available to use undeveloped City property or parkland for urban agricultural uses, such as community gardens and farmers markets. Should properties become available, develop a program to establish such uses in appropriate locations.

Action OSC-10 Purchasing Policies. Amend the City's purchasing policies to encourage the use of foods grown in Santa Cruz County at City events.

Purchasing Policies and Actions

- Action OSC-1.1 City Purchasing Policy Amendment. Amend the City's purchasing policies to prioritize green business practices and local businesses.
- Action OSC-11.4 City Purchasing Policies. Amend the City's purchasing policies to promote the use of reusable, returnable, recyclable, and repairable goods.

Community Action Policies and Actions

Action OSC-1.2 Education Partnerships. Form partnerships with local schools and community organizations to support programs aimed at teaching young people about environmental stewardship.

Implementation of the General Plan policies and actions would ensure consistency with statewide, regional, and the City's GHG reduction planning efforts and impacts would be *less than significant*.

Applicable Regulations:

- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- AB 32: California Global Warming Solutions Act
- SB 375: Sustainable Communities Strategies
- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations: Appliance Energy Efficiency Standards
- Title 17 California Code of Regulations: Low Carbon Fuel Standard
- AB 1881: California Water Conservation in Landscaping Act of 2006
- SB 1368: Statewide Retail Provider Emissions Performance Standards
- SB 1078: Renewable Portfolio Standards
- Title 24, Part 6, California Code of Regulations: Building and Energy Efficiency Standards
- Title 24, Part 11, California Code of Regulations: Green Building Standards Code

Implementation of the General Plan policies as well as compliance with the following applicable State standards listed here and described above would ensure consistency with statewide, regional, and the City's GHG reduction planning efforts.

Significance Before Mitigation: Less than significant.

AMBAG Regional Energy Plan

The AMBAG Regional Energy Plan was developed and adopted in 2006, and later updated in 2008. The objective of the regional energy plan to lay out the region's joint approach to establishing an energy vision through objectives, goals, and action plans that will mitigate future energy impacts on the region. This cooperative approach

is leveraged to reduce overall costs and challenges of compliance with AB 32 requirements. The 2006 Energy Plan laid out a set of four Plan objectives, goals, and action steps for the region, as listed in Table 4.15-7. As shown in Table 4.15-7, the proposed General Plan Update would be consistent with the AMBAG Regional Energy Plan.³⁰

Plan Objectives	Project Consistency ^a
Energy Information, Education and Local Capacity Building	Consistent: The following policies in the proposed General Plan Update would be consistent with this strategy: CA-3, CA-5, CA-7, GB-2, GB-11, GB-14, GB-16, GB-17, TR-12, TR-15, TR-21.
Energy Conservation and Efficiency	Consistent: The following policies in the proposed General Plan Update would be consistent with this strategy: ED-3.1, OSC-4.4, OSC-4.5, OSC-4.6, OSC-4.3, OSC-5.4.
Clean Renewable and Distributed Generation Resources	Consistent: The following policies in the proposed General Plan Update would be consistent with this strategy: OSC-4.1, OSC-4.2, OSC-4.3, OSC-4.4, OSC-4.5, OSC-4.6, OSC-5.2, OSC-5.4, OSC-5.5.
Transportation Energy	Consistent: The following policies in the proposed General Plan Update would be consistent with this strategy: MO-1.2, TR-3, TR-8.

a. Policies are detailed in Section 5.5.4, Relevant General Plan Policies..

Source: Association of Monterey Bay Area Governments (ABAG), 2008, Monterey Bay Regional Energy.

4.15.4 CUMULATIVE IMPACT DISCUSSION

GHG-3 The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in a significant cumulative impact with respect to GHG emissions.

GHG emissions related to the proposed Plan are not confined to a particular air basin but are dispersed worldwide. The global increase in GHG emissions that has occurred and will occur in the future is the result of the actions and choices of individuals, businesses, local governments, states, and nations. Therefore, the analysis in Section 4.15.3, Impact Discussion, addresses cumulative impacts. Impact GHG-1 identifies that the proposed Plan would represent a substantial increase in GHG emissions. These GHG emissions would exceed the MBUAPCD thresholds and impacts would be significant.

Applicable Regulations:

- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- AB 32: California Global Warming Solutions Act
- SB 375: Sustainable Communities Strategies
- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations: Appliance Energy Efficiency Standards

³⁰ Association of Monterey Bay Area Governments (ABAG), 2008, Monterey Bay Regional Energy Plan.

- Title 17 California Code of Regulations: Low Carbon Fuel Standard
- AB 1881: California Water Conservation in Landscaping Act of 2006
- SB 1368: Statewide Retail Provider Emissions Performance Standards
- SB 1078: Renewable Portfolio Standards
- Title 24, Part 6, California Code of Regulations: Building and Energy Efficiency Standards
- Title 24, Part 11, California Code of Regulations: Green Building Standards Code

Implementation of the General Plan policies and actions would ensure consistency with statewide, regional, and the City's GHG reduction planning efforts.

Significance Before Mitigation: Significant.

4.15.5 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

GHG-1 GHG emissions associated with the proposed Plan would exceed MBAUAPCD's proposed GHG significance threshold of 2,000 MTCO₂e per year.

Mitigation Measure GHG-1: The City of Capitola shall prepare a Climate Action Plan within 18 months of adopting the proposed Capitola General Plan update. The Climate Action Plan shall include a community inventory of GHG emission sources, and a quantifiable GHG emissions reduction target for 2020 that is consistent with the statewide GHG reduction target under Assembly Bill 32 (2006) and an interim target for the General Plan horizon year 2035 that is consistent with the statewide GHG reduction goal under Executive Order S-03-05, as outlined in CARB's 2013 Scoping Plan Update. The City shall monitor progress toward the GHG emissions reduction goal and prepare reports every 5 years detailing that progress. Measures listed below shall be considered for all new development between the time of adoption of the proposed Capitola General Plan update and adoption of the Climate Action Plan. Local measures considered in the Climate Action Plan may include:

- Require all municipal fleet purchases to be fuel-efficient vehicles for their intended use based on the fuel type, design, size, and cost efficiency.
- Work with AMBAG to create a Metropolitan Transportation Plan/Sustainable Community Strategy (MTP/SCS) that will reduce GHG emissions generated from transportation in the region.
- 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.
- Amend the Green Building Ordinance to encourage building designs that minimize waste and consumption in construction projects.
- Require new development and major renovations to use energy-efficient appliances that meet ENERGY STAR standards and energy-efficient lighting technologies that exceed Title 24 standards by 30 percent.

- 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.
- Implement incentives for the use of drought-tolerant landscaping and recycled water for landscape irrigation.
- Require all new landscaping irrigation systems installed in the city to be automated, high-efficient irrigation systems to reduce water use and require use of bubbler irrigation; low-angle, low-flow spray heads; or moisture sensors.
- Conduct periodic energy efficiency audits of existing municipal buildings by checking, repairing, and readjusting heating, ventilation, and air conditioning systems; lighting; water heating equipment; insulation; and weatherization.
- Continue to implement intelligent transportation systems, roundabouts, signal timing and synchronization, and other efficiency methods that decrease idling time and congestion.
- Investigate partnership with programs such as Zipcar to support use of energy efficient or electric vehicles for city residents.
- Continue to work with county and regional transportation leaders to explore options for additional funding sources on the regional level to support multi-modal transportation infrastructure.
- 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 Avenue, and 41st Avenue areas). Free bus passes, reimbursement for not using a parking space, emergency cab services, etc. will help reduce parking demand and reduce GHG emissions through reduced commuter traffic.
- 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.
- 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 projects include projects that change 50 percent or more of the square footage or wall space.
- 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.
- Encourage grey water use and rainwater catchment systems where their use could accomplish water conservation objectives through the following measures:
 - Integrate new California grey water building/plumbing codes into the Green Building Ordinance.
 - Adopt a residential rainwater collection policy and update the Zoning Code as needed to support permitting and regulation of residential rainwater systems.

- 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.
- Pursue funding sources to provide rebates and reduce permit fees for cisterns.
- Provide outreach support for water-efficient landscaping programs, classes, and businesses.
- 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 wind power facilities. As part of this plan:
 - Propose phasing and timing of alternative energy facility and infrastructure development.
 - Conduct a review of City policies and ordinances and establish a development review process for new alternative energy projects that ensures noise, aesthetic, and other potential land use compatibility conflicts are avoided (e.g., installing tracking solar PV or angling fixed solar PV in a manner that reduces glare to surrounding land uses).
 - Develop a renewable energy expansion plan for the City.
 - Consider reducing permitting fees or other incentives for alternative energy development.
 - Participate in regional efforts to implement Community Choice Aggregation (CCA).

Significance After Mitigation: Significant and unavoidable. The City of Capitola General Plan includes policies and measures (shown in Table 4.15-7) for the City to implement in support of achieving the reduction target of AB 32 and the Statewide GHG reduction goal of Executive Order S-03-05. Mitigation Measure GHG-1 would require that the City develop a plan to ensure that development within the city is consistent with Statewide efforts of the Scoping Plan to reduce GHG emissions and associated climate change impacts. Pursuant to the Scoping Plan, CARB that recommends jurisdictions reduce GHG emissions by 15 percent from existing levels. The City's 2010 GHG emissions inventory is estimated at 88,091 MT CO_{2e}. Consequently, the GHG emissions reduction goal for the City under AB 32 is 74,877 MT CO2e. At General Plan buildout the City's GHG emissions are projected to be 91,960 MT CO₂e, which amounts to an increase of 3,869 MTCO₂e emissions by 2035 over existing conditions. Mitigation Measure GHG-1 would require the City reduce GHG emissions by 13,2014 MTCO_{2e} to achieve a 15 percent reduction from existing levels. Furthermore, while the buildout of City under the proposed General Plan will cumulatively generate GHG emissions that would contribute global climate change, the land use, transportation, conservation, and housing policies of the updated General Plan would facilitate and encourage smarter growth practices and environmentally sustainable development that help counter-act GHG emissions, and are in line with the goals of AB 32 and SB 375. These policies are a proactive response that helps promote mobility and reduce GHG emissions by discouraging inefficient land development patterns, transportation, and housing practices that would have a greater contribution to GHG emissions. Despite these efforts, implementation of Mitigation Measures GHG-1 in addition to the policies integrated into the updated General Plan, Impact GHG-1 would still be significant and unavoidable, as buildout of the city would significantly contribute to climate change impacts due to the magnitude of emissions that would be generated from growth of the city, which amounts to an increase of 3,869 MTCO2e emissions by 2035 over existing conditions and exceeds MBUAPCD's proposed GHG threshold of 2,000 MTCO₂e.

GHG-3 The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in a significant cumulative impact with respect to GHG emissions.

Mitigation Measure GHG-3: Implement Mitigation Measure GHG-1.

Significance After Mitigation: Significant and unavoidable.

GENERAL PLAN UPDATE EIR CITY OF CAPITOLA

5. Significant Unavoidable Adverse Impacts

Chapter 1, Executive Summary, contains Table 1-1, which summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. While policies and actions from the proposed Plan and mitigation measures, where available, would reduce the level of impact, the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

5.1 AIR QUALITY

- Impact AIR-2: Significant. Development projects allowed under the proposed Plan would increase regional pollutants over current conditions, specifically PM₁₀ and PM_{2.5}. Although ozone precursor pollutants, reactive organic compounds, and nitrogen oxides would decrease, and individual development projects would undergo CEQA review as applicable, proposed development and associated mobile and stationary source air quality impacts would result in a significant and unavoidable impact. A Statement of Overriding Considerations would be required.
- Impact AIR-6: Significant. The proposed Plan would result in a significant cumulative impact with regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is Nonattainment, as the NCCAB is considered to be a Nonattainment Area for O₃ and PM₁₀. The contribution of daily operational emissions from the growth associated with implementation of the proposed Plan could be cumulatively considerable despite the implementation of the proposed Plan's goals, policies, and actions. This cumulative impact is considered to be significant and unavoidable and a Statement of Overriding Considerations would be required.

5.2 HYDROLOGY AND WATER QUALITY

Impact HYDRO-2: Significant. The proposed Plan could 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. Although impacts to natural groundwater recharge are not anticipated, impacts to groundwater supplies as a result of increased water demand could occur with new development associated with implementation of the proposed Plan. While a future seawater desalination plant has recently been considered, which would significantly reduce the potential for overdraft of the groundwater basin and reduce the potential for saltwater intrusion into the water supply, this future project is not yet approved and therefore cannot be relied upon to provide future water supply at this time. Since other sources of water to meet future demand have not been identified or secured, potential groundwater overdraft-related impacts would remain significant and unavoidable and a Statement of Overriding Considerations would be required.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Impact HYDRO-9: Significant. The proposed Plan, in combination with past, present, and reasonably foreseeable development, could result in significant cumulative impacts with respect to hydrology and water quality. Implementation of the proposed Plan could result in an increased demand of up to 124 acre-feet per year (afy), which could indirectly result in the over-drafting of the groundwater table and project-level impacts in this regard were determined to be significant. Implementation of the proposed Plan and other cumulative projects within the Basin could further exacerbate this impact. Thus, a cumulatively considerable significant impact exists. While goals, policies, and actions contained in the proposed Plan would reduce potential impacts to water quality and hydrology associated with planned development, this impact is considered significant and unavoidable. A Statement of Overriding Considerations would be required.

5.3 TRANSPORTATION AND TRAFFIC

- Impact TRANS-1: Significant. Implementation of the proposed Plan would cause intersection operation to degrade to an unacceptable LOS at four study intersections in 2035. Traffic impacts of the proposed Plan were determined using AMBAG's regional travel demand forecasting model. Implementation of the improvements identified would provide acceptable LOS operations and reduce the proposed Plan traffic impacts to a less-than-significant level at all intersections except for the intersection of Porter Street and Highway 1 NB. The intersection of Porter Street and Highway 1 NB. The intersection of Porter Street at this intersection is outside the jurisdiction of the City of Capitola. Since implementation of the identified improvement necessary to mitigate the impact to a less than significant level cannot be guaranteed, and may be considered infeasible by Caltrans, the impact is considered significant and unavoidable and a Statement of Overriding Considerations would be required.
- Impact TRANS-6: Significant. Implementation of the proposed Plan, in combination with past, present, and reasonably foreseeable project, would result in additional cumulatively considerable impacts. Implementation of the proposed Plan would result in significant impacts at five of the study intersections. Improvements have been identified which would provide acceptable LOS operations and reduce the proposed Plan traffic impacts to a less-than-significant level at all of the intersections with the exception of the Porter Street and Highway 1 NB Ramps. The intersection of Porter Street and Highway 1 NB Ramps. The intersection of improvements at this intersection is outside the jurisdiction of the City of Capitola. Since implementation of the identified improvement necessary to mitigate the impact to a less-than-significant level cannot be guaranteed, and may be considered infeasible by Caltrans, the impact is considered significant and unavoidable. A Statement of Overriding Considerations would be required.

5.4 UTILITIES AND SERVICE SYSTEMS

Impact UTIL-1: Significant. Buildout of the proposed Plan would result in insufficient water supplies from existing entitlements and resources in 2035. The Plan Area is located primarily within the SqCWD's water service area. SqCWD anticipates supplemental water from the proposed seawater desalination plant that, in combination with sustainable groundwater supply, will provide adequate supply to satisfy future demand. However, construction of the desalination plant as proposed – which requires approval from both the
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SqCWD and the City of Santa Cruz, and their respective constituents and citizens – is not a certainty. Without the desalination plant to provide supplemental water, future demand will exceed future supply. Because the Plan Area is within water utilities' service areas where regional future supply deficits are projected, it is concluded that buildout of the proposed Plan would result in a significant and unavoidable impact on SqCWD's and SCWD's water supply. A Statement of Overriding Considerations would be required.

- Impact UTIL-2: Significant. The proposed Plan would require the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. Without construction of the planned desalination facility discussed above, the water demand associated with the proposed Plan would exceed future supply in the SqCWD service area. Construction of the desalination plant as proposed which requires approval from both the SqCWD and the City of Santa Cruz, and their respective constituents and citizens is not a certainty. Nevertheless, because the availability of future water supplies from the desalination plant is uncertain and demand would exceed available supplies without the plant, the proposed Plan could result in the need for new water treatment facilities or the expansion of existing facilities the construction of which would cause significant environmental effects. Therefore, the impact would be significant and unavoidable and a Statement of Overriding Considerations would be required.
- Impact UTIL-3: Significant. The proposed Plan, in combination with past, present, and reasonably foreseeable development, would result in significant cumulative impacts with respect to water supply. Cumulative water demand would exceed anticipated levels of supply, which does not include the proposed desalination plant. As a result, either significant water demand reduction or supplemental water supply is required. The necessary water supply could come from building new (such as the desalination plant) or expanding existing facilities. However, the SqCWD and SCWD indicate that additional significant demand reduction through water conservation measures of 35 percent to 50 percent would be required if the desalination plant is not built and/or the HCP diversions are greater than anticipated in dry years. Therefore, the cumulative impact would be significant and unavoidable and a Statement of Overriding Considerations would be required.

5.5 GREENHOUSE GAS EMISSIONS

Impact GHG-1: Significant. Buildout under the proposed Plan would generate GHG emissions that would significantly contribute to global climate change impacts in California. Compared to the City's existing emissions inventory, Capitola would experience an increase of 3,869 MTCO₂e of GHG emissions in 2035 in the absence of GHG reduction measures. Consequently, GHG emissions in the city would exceed 2,000 MTCO₂e threshold proposed by the Monterey Bay Unified Air Pollution Control District. To address this impact, the City of Capitola shall prepare a Climate Action Plan within 18 months of adopting the proposed Plan. The Climate Action Plan would ensure that development within the city is consistent with Statewide efforts of the Scoping Plan to reduce GHG emissions and associated climate change impacts. In addition, the land use, transportation, conservation, and housing policies of the updated General Plan would facilitate and encourage smarter growth practices and environmentally sustainable development to help counter-act GHG emissions, and are in line with the goals of AB 32 and SB 375. However, despite these efforts, this impact would be significant and unavoidable, as buildout of the city would significantly contribute to climate change

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impacts and the level to which the future Climate Action Plan would reduce impacts cannot yet be determined.

Impact GHG-3: Significant. The proposed Plan, in combination with past, present, and reasonably foreseeable projects, would result in a significant cumulative impact with respect to GHG emissions. GHG emissions related to the proposed Plan are not confined to a particular air basin but are dispersed worldwide. Therefore, Impact GHG-1 represents a cumulative impact that would be significant and unavoidable.

6. Alternatives

The proposed Plan is described and analyzed in Chapters 4.0 through 4.15 of this EIR with an emphasis on potentially significant impacts and recommended mitigation measures to avoid those impacts. The California Environmental Quality Act (CEQA) Guidelines require the description and comparative analysis of a range of alternatives to the proposed Plan that could feasibly attain the objectives of the proposed Plan, while avoiding or substantially lessening potential impacts. CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

The following discussion is intended to inform the public and decision makers of the feasible alternatives that would avoid or substantially lessen any significant effects of the Project, and to compare such alternatives to the proposed Plan. Section 15126.6 of the CEQA Guidelines states that:

An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.

The following discussion includes an evaluation of two alternatives to the proposed General Plan (proposed Plan). CEQA Guidelines Section 15126.6(e) requires consideration of a "No Project Alternative" in every EIR. In the case of the proposed Plan, the No Project Alternative is a scenario in which the proposed Plan is not adopted and implementation of existing plans and policies continues until 2035. Consistent with CEQA Guidelines Section 15126.6(a), the other alternative selected for consideration in this analysis is a reduced commercial floor area ratio (FAR) alternative, which would feasibly attain most of the basic objectives of the Plan, as listed in Chapter 3, Project Description, but would avoid or substantially lessen any of the significant effects of the Plan. Further, Section 15126.6(f) states that alternatives in an EIR should be governed by a "rule of reason" and requires the EIR to set forth alternatives necessary to permit a reasoned choice, that would avoid or substantially lessen any significant effects, and that could feasibly attain most of the objectives of the project. As such, provided that the projected population growth and recent trends in Capitola have indicated little growth, only two alternatives were selected for further analysis. The two alternatives are as follows:

No Project Alternative. Under this alternative, the Capitola General Plan would not be adopted and future development in Capitola would occur under the goals, policies, programs, and land use designations set forth in the existing 1989 General Plan. The maximum allowable commercial FAR would not increase in the 41st Avenue Corridor and Capitola Village. Additionally, the allowable residential densities would be the same as under the proposed Plan, although the proposed consolidation of General Plan land use designations would not occur. The No Project Alternative is estimated to result in as many as 80 new housing units, 280 residents, and approximately 410 new jobs in Capitola by 2035.

Reduced Commercial Floor Area Ratio (FAR) Alternative. Under the Reduced Commercial FAR Alternative, the maximum allowable commercial FAR in the 41st Avenue Corridor and Capitola Village would be increased to 1.0 FAR to allow slightly more commercial development than what is currently permitted by the 1989 General Plan. As under the proposed Plan, the Regional Commercial and Community Commercial land use designations would apply in the 41st Avenue Corridor and the Village Mixed-Use designation would apply in Capitola Village. The consolidation of land use designations proposed in the Plan, including residential land use categories, would also apply under this alternative and the goals, policies, and actions contained in proposed Plan would also be adopted under this alternative. The Reduced Commercial FAR Alternative is estimated to result in as many as 80 new housing units, 280 new residents, and approximately 760 new jobs in Capitola by 2035.

Table 6-1 shows a comparison between the alternatives and proposed Plan of housing units, jobs, non-residential square footage, and population growth estimated at buildout.

6.1 NO PROJECT ALTERNATIVE

6.1.1 PRINCIPAL CHARACTERISTICS

Under the No Project Alternative, the Capitola General Plan would not be adopted and future development in Capitola would be subject to existing policies and land use designations in the existing 1989 General Plan. Under this scenario, because allowable residential densities would be the same as under the proposed Plan, residential growth would be the same as under the proposed Plan. As such, the No Project Alternative could result in up to 5,614 housing units in Capitola by 2035. The maximum allowable commercial FAR would not increase in the 41st Avenue Corridor and Capitola Village. In the 41st Avenue Corridor, the FAR would remain at 0.5 and in Capitola Village the allowable building density and intensity would continue to be set forth in the Central Village Design Guidelines. Therefore, non-residential square footage of 1,901,748 and up to 6,580 jobs by 2035. In comparison to the proposed Plan, this alternative would result in an equal number of housing units, and 226,777 less non-residential square footage, resulting in 790 fewer jobs. When compared to the proposed Plan, this alternative would result in a projected increase of 280 residents by 2035, as shown above in Table 6-1.

6.1.2 IMPACT DISCUSSION

The No Project Alternative would have the following impacts relative to the proposed Plan:

TABLE 6-1 COMPARISON OF ESTIMATED 2035 BUILDOUT OF ALTERNATIVES AND PROPOSED PLAN

	Housing Units	Jobs	Non-Residential Square Footage	Population Growth
No Project Alternative	5,614	6,580	1,901,748	280
REDUCED COMMERCIAL FAR ALTERNATIVE	5,614	6,930	2,002,176	280
PROPOSED PLAN	5,614	7,370	2,128,525	280
AMBAG DRAFT PROJECTIONS	5,554	7,368	n/a	170

Source: AMBAG. 2013 and The Planning Center | DC&E, 2013.

TABLE 6-2 **COMPARISON OF ALTERNATIVES**

Торіс	No Project Alternative	Reduced Commercial FAR Alternative
Aesthetics	-	=
Air Quality	_	=
Biological Resources	=	=
Cultural Resources	=	=
Geology, Soils, and Seismicity	+	=
Hazards and Hazardous Materials	+	=
Hydrology and Water Quality	=	=
Land Use and Planning	_	=
Noise	+	=
Population and Housing	=	=
Public Services	_	=
Parks and Recreation	=	=
Transportation and Traffic	=	=
Utilities and Services Systems	-	=
Greenhouse Gas Emissions	_	+

++ Substantial improvement compared to the proposed Plan. + Insubstantial improvement compared to the proposed Plan. = Same impact as proposed Plan.

- Insubstantial deterioration compared to the proposed Plan.

 – Substantial deterioration compared to the proposed Plan.
 Competing aspects within some factors would create both improvement and deterioration simultaneously for a single alternative. These trade-offs are discussed in the text.

6.1.2.1 AESTHETICS

As discussed in Chapter 4.1, Aesthetics, of this Draft EIR, the proposed Plan would result in less than significant impacts with respect to the visual character and aesthetics of Capitola. While growth under the No Project Alternative would be subject to existing City regulations such as the Zoning Code and other applicable design guidelines, the existing 1989 General Plan contains goals and policies that are over 24 years old, with respect to design standards and aesthetics. As such, the proposed Plan would include goals and policies that would reflect the changing landscape and renewed vision of Capitola. The goals and policies in the proposed Plan seek to preserve and enhance Capitola's intimate small-town feel and coastal character.

While the existing 1989 General Plan contains several policies related to aesthetics, such policies do not reflect the current vision and goals of Capitola provided the General Plan was adopted 24 years ago. Building upon the framework of the existing General Plan, the proposed Plan contains such goals and policies that would maintain and enhance Capitola's distinctive identity and unique sense of place, and ensure that new development maintains and enhances Capitola's neighborly feel through policies that require high quality design to enhance the visual character. As such, the No Project Alternative would not have the beneficial effect of providing additional policy guidance on the protection and enhancement of visual quality resources within Capitola. For this reason, this alternative is considered an *insubstantial deterioration* compared to the proposed Plan.

6.1.2.2 AIR QUALITY

As discussed in Chapter 4.2, Air Quality, of this Draft EIR, the proposed Plan would result in significant and unavoidable impacts associated with the overall increase in mobile and stationary source emissions and regional air quality emissions resulting from operational buildout of the proposed Plan.

The No Project Alternative would allow for new development on existing vacant land or through redevelopment of currently developed land, similar to the proposed Plan as residential development would remain the same. However, non-residential buildout would be lower under the No Project Alternative, resulting in a reduction of non-residential square footage when compared to the proposed Plan. Therefore, operational and cumulative air quality emissions would be reduced as compared to the proposed Plan, and would fall within the programmed assumptions that have been established by the MBUAPCD's 2012 AQMP. However, the proposed Plan goals, policies, and actions provide for greater opportunities to protect and improve air quality, including updated policies and actions that reflect current regulatory requirements, as well as providing opportunities for a better jobs/housing balance to reduce vehicle miles traveled (VMT), and encouraging energy conservation and expanded transit opportunities. Thus, in comparison to the proposed Plan, the No Project Alternative would be an *insubstantial deterioration* from the proposed Plan.

6.1.2.3 BIOLOGICAL RESOURCES

As discussed in Chapter 4.3, Biological Resources, of this Draft EIR, the proposed Plan would result in less-thansignificant impacts associated with biological resources. The No Project Alternative and the proposed Plan would allow for new development on existing vacant land, infill development, and redevelopment of currently developed properties. Therefore, potential impacts to biological resources would be similar under the No Project Alternative and proposed Plan. Impacts to biological resources associated with either the No Project Alternative or the proposed Plan would be less than significant by adherence to existing regulatory requirements, including the City of Capitola Municipal Code and Local Coastal Program, as well as the goals, policies, and actions of the proposed Plan. Thus, the No Project Alternative would have *similar* impacts as the proposed Plan.

6.1.2.4 CULTURAL RESOURCES

The proposed Plan, as discussed in Chapter 4.4, Cultural Resources, of this Draft EIR, could result in significant impacts to cultural resources. Implementation of mitigation would reduce these potential impacts to less-than-significant levels.

The No Project Alternative and the proposed Plan would allow for new development on existing vacant land, infill development, and redevelopment of currently developed properties. Therefore, potential impacts to known or unknown/undiscovered historical, archaeological, or paleontological resources would be similar under the No Project Alternative or the proposed Plan. However, impacts related to cultural resources associated with either the No Project Alternative or the proposed Plan would be less than significant by adherence to and/or compliance with the City of Capitola Municipal Code, Local Coastal Program, and goals, policies, and actions of the General Plan, and recommended mitigation. Thus, the No Project Alternative would have *similar* impacts as the proposed Plan.

6.1.2.5 GEOLOGY, SOILS, AND SEISMICITY

As discussed in Chapter 4.5, Geology, Soils, and Seismicity, of this Draft EIR, the proposed Plan would result in less-than-significant impacts associated with geology and soils.

Implementation of the No Project Alternative or the proposed Plan would potentially result in new development, thereby resulting in an increase in population and employment. Potential new development would be located throughout the City and would result in a greater number of structures/people potentially exposed to substantial adverse effects associated with severe ground shaking or ground failure. However, impacts related to geologic and seismic hazards associated with either the No Project Alternative or the proposed Plan would be less than significant by adherence to and/or compliance with building codes and standards and the goals, policies, and actions of the General Plan. The No Project Alternative would allow the development of less non-residential square footage than the Proposed Plan; therefore, the number of people or structures that would potentially be exposed to seismic hazards would be reduced with this alternative. Therefore, the No Project Alternative would be an *insubstantial improvement* when compared to the proposed Plan.

6.1.2.6 HAZARDS AND HAZARDOUS MATERIALS

The proposed Plan would not result in significant impacts to hazards and/or hazardous materials. As such, the analysis contained in Chapter 4.6, Hazards and Hazardous Materials, determined that impacts associated with the proposed Plan would be less than significant.

Implementation of the No Project Alternative or the proposed Plan would potentially result in the development of facilities that could impact the health and safety of Capitola residents and employees. Both the No Project Alternative and the proposed Plan would be subject to existing regulatory requirements that would reduce the potential threat associated with hazardous material use, disposal, and transport. The increased non-residential development intensities allowed by the proposed Plan may involve increased storage and/or use of hazardous materials, potentially exposing a greater number of people to hazards and/or hazardous materials. However, in addition to existing regulatory requirements, the proposed Plan includes goals, policies, and actions to reduce potential impacts to less-than-significant levels. Thus, the No Project Alternative would be an *insubstantial improvement* when compared to the proposed Plan.

6.1.2.7 HYDROLOGY AND WATER QUALITY

As discussed in Chapter 4.7, Hydrology and Water Quality, of this Draft EIR, the proposed Plan would result in significant unavoidable project and cumulative project impacts associated with depletion of groundwater supplies. All other hydrology and water quality impacts would be reduced to less-than-significant levels.

The No Project Alternative and the proposed Plan would allow for new development, potentially resulting in hydrology, drainage, or water quality impacts. However, the proposed Plan would allow for greater development when compared to the No Project Alternative. Implementation of the No Project Alternative or the proposed Plan would involve greater development and potentially greater demand for groundwater resources due to increased growth. As discussed in Chapter 4.7 of this Draft EIR, the Soquel Creek Water District anticipates that demand will exceed sustainable groundwater supply in 2020 and beyond without additional growth anticipated by the proposed Plan. Thus, impacts associated with the No Project Alternative and the proposed Plan would be significant and unavoidable. Thus, the No Project Alternative would have *similar* impacts as the proposed Plan.

6.1.2.8 LAND USE AND PLANNING

The proposed Plan would not physically divide an existing community, nor would it result in significant conflicts with applicable land use plans or policies. As such, the analysis contained in Chapter 4.8, Land Use and Planning determined that impacts associated with the proposed Plan would be less than significant.

Under the No Project Alternative, the type and distribution of land uses would be relatively similar to that which would occur under the proposed Plan. Neither buildout of the existing General Plan nor the proposed Plan would physically divide existing communities within Capitola, although the proposed Plan includes new policies to ensure new development would have minimal impacts and complement existing land use patterns and uses within Capitola. Because the General Plan is the overarching policy document for the City, neither the No Project Alternative nor proposed Plan would conflict with other local land use policies or land use regulations. Because

there are no Habitat Conservation Plans (HCPs) applicable to Capitola, neither the No Project Alternative nor the proposed Plan would conflict with an HCP.

Under this alternative, policies contained in the proposed General Plan that would protect ocean resources and are consistent with the Monterey Bay National Marine Sanctuary Plan would not be implemented. Therefore, in comparison to the proposed Plan, the No Project Alternative would be an *insubstantial deterioration* from the proposed Plan.

6.1.2.9 NOISE

As discussed in Chapter 4.9, the only noise-related impacts from buildout of the proposed Plan would result from groundborne vibration associated with construction activities. However, with implementation of mitigation measures the proposed Plan would result in less than significant impacts related to groundborne vibration.

Development pursuant to the proposed Plan would result in additional noise from construction activities and an increase in traffic associated with future development. However, traffic noise associate with the proposed Plan would be nominal and would not result in significant impacts. Cumulative long-term operational noise impacts would be less than significant with implementation of the goals, policies, and actions included in the proposed Plan, as well as with compliance with the City's Noise Ordinance. As discussed above, groundborne vibration impacts associated with implementation of the proposed Plan would be mitigated to less than significant levels. In comparison to the proposed Plan, this alternative would result in an equal number of housing units and 226,777 fewer non-residential square feet, resulting in 790 fewer jobs. Therefore, ambient noise levels would be expected to remain consistent with existing conditions and a substantial noise increase would not occur. For this reason, this alternative is considered an *insubstantial improvement* compared to the proposed Plan.

6.1.2.10 POPULATION AND HOUSING

The proposed Plan, as discussed in Chapter 4.10, Population and Housing, would not induce substantial growth, displace substantial numbers of existing housing units, nor displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. Therefore, impacts with respect to population and housing were determined to be less than significant.

Development under the No Project Alternative would result in an equal number of residents and housing units at buildout as under the proposed Plan. Both the No Project Alternative and proposed Plan are expected to result in an additional 280 residents and result in 5,614 housing units. As such, the impact with regards to population increase and the number of housing units would be the same under the No Project Alternative and the proposed Plan. However, employment under this alternative is projected to result in a total of 6,580 jobs, while under the proposed Plan employment is expected to add an additional 1,200 jobs, totaling 7,370 by 2035. Because the No Project Alternative and the proposed Plan would result in the same number of housing units, result in an equal amount of additional population, and have little difference in overall employment, thereby resulting in similar ratios of jobs and housing and not displacing substantial numbers of people, this alternative would have *similar* impacts when compared to the proposed Plan.

6.1.2.11 PUBLIC SERVICES

The proposed Plan would not result in significant impacts related to the provision of public services, including fire and police services, schools, recreational facilities, or libraries.

Buildout of the existing 1989 General Plan would result in an increase in population equal to the increase resulting from buildout of the proposed Plan. Additionally, the number of housing units under both the existing General Plan, and the proposed Plan are also equal at 5,614 housing units. As a result, the demand for public services, including fire protection, law enforcement, libraries, and schools, under this alternative would be the same as the proposed Plan. However, the proposed Plan contains many updated goals and policies to ensure that police, fire, and other emergency response procedures are adequate to serve the needs and protect the public in the event of hazards. Further, policies contained in the proposed Plan seek to maintain the public library to ensure continued operation to serve the community. Such policies would help to mitigate any demand impacts from implementation of the proposed Plan. Thus, the No Project Alternative is considered to result in an *insubstantial deterioration* compared to the proposed Plan.

6.1.2.12 PARKS AND RECREATION

As discussed in Chapter 4.12, Parks and Recreation, impacts to parks and recreational facilities would not result in significant impacts as a result of buildout of the proposed Plan.

Under the No Project Alternative, impacts to recreational facilities and parks would be similar to the proposed Plan, given that the number of housing units and population growth would be the same. Under this alternative, existing parks and recreational facilities would remain unchanged and continue to serve the population as they have been. Although the existing General Plan does contain goals and policies to maintain and protect parks and recreational facilities, the proposed Plan would also include updated policies and goals to maintain and enhance parks and recreational facilities. For example, under the proposed Plan, one of the goals is to provide high-quality public parks that cater to the diverse needs and interest of Capitola residents and visitors. Nevertheless, the No Project Alternative would not result in an increased need for parks and recreation facilities in comparison to the proposed Plan and therefore this alternative would have *similar* impacts as the proposed Plan.

6.1.2.13 TRANSPORTATION AND TRAFFIC

As discussed in Chapter 4.13, Transportation and Traffic, of this Draft EIR, impacts to transportation and traffic would result in a significant impact associated with the operation of the Porter Street and Highway 1 northbound ramps intersection with buildout of the proposed Plan. All other transportation and traffic impacts would be reduced to a less-than-significant level with incorporation of mitigation.

As indicated in Chapter 4.13, all study intersections are currently operating at an acceptable Level of Service (LOS) except for the intersection of Park Avenue and Kennedy Drive which operates at an unacceptable LOS E during both the AM and PM peak hours. The No Project Alternative would allow for new development on existing vacant land or through redevelopment of currently developed land, similar to the proposed Plan, as anticipated residential development would remain the same. Although non-residential buildout would be slightly lower under the No

Project Alternative when compared to the proposed Plan, it is anticipated that similar significant impacts would occur under the No Project Alternative due to the growth allowed by the existing General Plan, as well as regional traffic. Thus, in comparison to the proposed Plan, the No Project Alternative would have *similar* impacts as the proposed Plan.

6.1.2.14 UTILITIES AND SERVICE SYSTEMS

As discussed in Chapter 4.14, Utilities and Service Systems, of this Draft EIR, the proposed Plan would result in significant unavoidable project and cumulative project impacts associated with the need for new water supply utilities. All other utilities impacts would be reduced to less-than-significant levels.

The No Project Alternative and the proposed Plan would allow for new development, increasing demand for water, sewer, stormwater, and solid waste utilities and services. Although the proposed Plan would allow for greater development when compared to the No Project Alternative, increased growth under either the proposed Plan or No Project Alternative would potentially result in greater demand for water supply beyond existing conditions. As discussed in Chapter 4.14 of this Draft EIR future water demand could be met with supplies from existing entitlements and resources, provided the planned desalination plant is built as proposed. However, as construction of the desalination plant is uncertain, under both the proposed Plan and No Project Alternative a significant and unavoidable impact would occur. Under the No Project Alternative, the goals, policies, and actions in the proposed Plan that address future utilities provision would not be adopted. Thus, the No Project Alternative would be an *insubstantial deterioration* in comparison to the proposed Plan.

6.1.2.15 GREENHOUSE GAS EMISSIONS

As discussed in Chapter 4.15, Greenhouse Gas Emissions, of this Draft EIR, the proposed Plan would result in significant and unavoidable greenhouse gas (GHG) emissions impacts associated with the overall increase in trips and VMT, energy use, water use and wastewater generation, and solid waste disposal.

The No Project Alternative would allow for new development on existing vacant land or through redevelopment of currently developed land, similar to the proposed Plan. The increase in residential population would remain the same as the proposed Plan under this Alternative. However, employment would be approximately 11 percent lower under the No Project Alternative. GHG emissions would be reduced by approximately 10 percent as compared to the proposed Plan and would exceed the MBUAPCD's proposed threshold of 2,000 metric tons of carbon dioxide-equivalent (MTCO₂e). However, the proposed Plan goals, policies, and actions provide for greater opportunities to protect and improve GHG emissions, including updated policies and actions that reflect current regulatory requirements, as well as providing opportunities for a better jobs/housing balance to reduce VMT, and encouraging energy conservation and expanded transit opportunities. Consequently, on a per capita basis, GHG emissions associated with the No Project Alternative would be slightly higher under this Alternative. Thus, in comparison to the proposed Plan, the No Project Alternative would be an *insubstantial deterioration* from the proposed Plan.

6.2 REDUCED COMMERCIAL FAR ALTERNATIVE

6.2.1 PRINCIPAL CHARACTERISTICS

Under the Reduced Commercial FAR Alternative, the maximum allowable commercial FAR would increase in the 41st Avenue Corridor and Capitola Village to 1.0 to allow more commercial development than what is permitted under the 1989 General Plan and Central Village Design Guidelines. As under the proposed Plan, the Regional Commercial and Community Commercial land use designations would apply in the 41st Avenue Corridor and the Village Mixed Use designation would apply in Capitola Village. As shown above in Table 6-1, under this Alternative the non-residential square footage would be 2,002,176, which is 126,349 square feet less than the proposed Plan, and result in 6,930 jobs, totaling 440 fewer jobs than that of the proposed Plan. Additionally, there would be a total of 5,614 housing units at buildout, which would similar to the proposed Plan. The consolidation of land use designations proposed in the Plan, including residential land use categories, would also apply under this alternative.

6.2.2 IMPACT DISCUSSION

The Reduced Commercial FAR Alternative would have the following impacts compared to the proposed Plan:

6.2.2.1 AESTHETICS

As discussed in Chapter 4.1, Aesthetics, of this Draft EIR, the proposed Plan would result in less than significant impacts with respect to the visual character and aesthetics of Capitola.

Under the Reduced Commercial FAR Alternative, the maximum allowable commercial FAR in the 41st Avenue Corridor and Capitola would be increased from the current 0.5 FAR to 1.0 FAR, which would be a lower than what would be implemented under the proposed Plan. Additionally, under this Alternative, the increase in the number of housing units would be the same as under the proposed Plan, and therefore impacts to aesthetics, resulting from residential development would be similar to the proposed Plan.

Therefore, considering the similarities between this alternative and the proposed Plan, with the exception of a slightly lower FAR, the Reduced Commercial FAR Alternative would result in a *similar* impacts in comparison to the proposed Plan.

6.2.2.2 AIR QUALITY

As discussed in Chapter 4.2, Air Quality, of this Draft EIR, the proposed Plan would result in significant and unavoidable impacts associated in the overall increase in mobile and stationary source emissions and regional air quality emissions resulting from operational buildout of the proposed Plan.

The proposed Plan with Reduced Commercial FAR Alternative would allow for new development on existing vacant land or through redevelopment of currently developed land, similar to the proposed Plan. Although the proposed Plan with Reduced Commercial FAR would incrementally reduce construction-related emissions and regional operational emissions when compared to the proposed Plan, the significant unavoidable impact would not be eliminated as operational and cumulative emissions would be increased above baseline conditions due to the anticipated increase in area and energy source emissions for the non-residential uses. Thus, the proposed Plan with Reduced Commercial FAR Alternative is considered to result in *similar* impacts compared to the proposed Plan.

6.2.2.3 BIOLOGICAL RESOURCES

As discussed in Chapter 4.3, Biological Resources, of this Draft EIR, the proposed Plan would result in less-thansignificant impacts associated with biological resources.

The Reduced Commercial FAR Alternative and the proposed Plan would allow for new development on existing vacant land, infill development, and redevelopment of currently developed properties. Therefore, potential impacts to biological resources would be similar under the Reduced Commercial FAR Alternative or the proposed Plan. Impacts to biological resources associated with either the Reduced Commercial FAR Alternative or the proposed Plan would be less than significant by adherence to existing regulatory requirements, including the City of Capitola Municipal Code and Local Coastal Program, as well as the goals, policies, and actions of the proposed Plan. Thus, the Reduced Commercial FAR Alternative would have *similar* impacts as the proposed Plan.

6.2.2.4 CULTURAL RESOURCES

The proposed Plan, as discussed in Chapter 4.4, Cultural Resources, of this Draft EIR, could result in significant impacts to cultural resources. Implementation of mitigation would reduce these potential impacts to less-than-significant levels.

The Reduced Commercial FAR Alternative and the proposed Plan would allow for new development on existing vacant land, infill development, and redevelopment of currently developed properties. Therefore, potential impacts to known or unknown/undiscovered historical, archaeological, or paleontological resources would be similar under the Reduced Commercial FAR Alternative or the proposed Plan. However, impacts related to cultural resources associated with either the Reduced Commercial FAR Alternative or the proposed Plan would be less than significant by adherence to and/or compliance with the City of Capitola Municipal Code, Local Coastal Program, and goals, policies, actions of the General Plan, and recommended mitigation. Thus, the Reduced Commercial FAR Alternative would have *similar* impacts as the proposed Plan.

6.2.2.5 GEOLOGY, SOILS, AND SEISMICITY

As discussed in Chapter 4.5, Geology, Soils, and Seismicity, of this Draft EIR, the proposed Plan would result in less-than-significant impacts associated with geology and soils.

Implementation of the Reduced Commercial FAR Alternative or the proposed Plan would potentially result in new development, thereby resulting in an increase in population and employment. Potential new development would be located throughout the City and would result in a greater number of structures/people potentially exposed to substantial adverse effects associated with severe ground shaking or ground failure. However, impacts related to geologic and seismic hazards associated with either the Reduced Commercial FAR Alternative or the proposed Plan would be less than significant by adherence to and/or compliance with building codes and standards and the goals, policies, and actions of the General Plan. The Reduced Commercial FAR Alternative would allow the development of less non-residential square footage than the Proposed Plan. Therefore, the number of people or structures that would potentially be exposed to seismic hazards would be reduced with this Alternative. However, because impacts under both the proposed Plan and Reduced Commercial FAR Alternative would be less than significant, overall this alternative would be *similar* to the proposed Plan.

6.2.2.6 HAZARDS AND HAZARDOUS MATERIALS

The proposed Plan would not result in significant impacts associated with hazards and/or hazardous materials. As such, the analysis contained in Chapter 4.6, Hazards and Hazardous Materials, determined that impacts associated with the proposed Plan would be less than significant.

Implementation of the Reduced Commercial FAR Alternative or the proposed Plan would potentially result in the development of facilities that could impact the health and safety of Capitola residents and employees. Both the Reduced Commercial FAR Alternative and the proposed Plan would be subject to existing regulatory requirements that would reduce the potential threat associated with hazardous material use, disposal, and transport. The increased non-residential development intensities allowed by the Plan would allow for greater non-residential development when compared to the Reduced Commercial FAR Alternative. Thus, the proposed Plan may involve increased storage and/or use of hazardous materials, potentially exposing a greater number of people to hazards and/or hazardous materials. However, because impacts under both the proposed Plan and Reduced Commercial FAR Alternative would be less than significant, overall this alternative would be *similar* to the proposed Plan.

6.2.2.7 HYDROLOGY AND WATER QUALITY

As discussed in Chapter 4.7, Hydrology and Water Quality, of this Draft EIR, the proposed Plan would result in significant unavoidable project and cumulative project impacts associated with depletion of groundwater supplies. All other hydrology and water quality impacts would be reduced to less-than-significant levels.

The Reduced Commercial FAR Alternative and the proposed Plan would allow for new development, potentially resulting in hydrology, drainage, or water quality impacts. Although the proposed Plan would allow for greater development when compared to the Reduced Commercial FAR Alternative, increased growth under either the proposed Plan or Reduced Commercial FAR Alternative would potentially result in greater demand for groundwater resources beyond existing conditions. As discussed in Chapter 4.7 of this Draft EIR, the Soquel Creek Water District anticipates that demand will exceed sustainable groundwater supply in 2020 and beyond without additional growth. Thus, impacts associated with the Reduced Commercial FAR Alternative and the proposed Plan would be significant and unavoidable. The proposed Plan includes goals, policies, and actions that

address stormwater management and water quality, as well as conservation of water resources in order to reduce potential impacts. These goals, policies, and actions provide for increased protection and provide updated and current information regarding stormwater and water quality requirements and would also be adopted as part of the Reduced Commercial FAR Alternative. However, compliance with the regulatory requirements and existing goals, policies, and actions would not eliminate the significant and unavoidable impact to groundwater supplies. Thus, the Reduced Commercial FAR Alternative would have *similar* impacts as the proposed Plan.

6.2.2.8 LAND USE AND PLANNING

The proposed Plan would not physically divide an existing community, nor would it result in significant conflicts with applicable land use plans or policies. As discussed in Chapter 4.8, Land Use and Planning, there are no federal Habit Conservation Plans in Capitola, and several policies in the proposed General Plan would seek to protect ocean resources, thereby complying with the Monterey Bay National Marine Sanctuary Management Plan. Therefore, land use and planning impacts would be less than significant.

As previously mentioned, the Reduced Commercial FAR Alternative would result in a reduced FAR compared to the proposed Plan. As such, allowable development in the 41st Avenue Corridor and Capitola Village would be reduced. As under the proposed Plan, the land use designations of Regional Commercial and Community Commercial would apply in the 41st Avenue Corridor and the Village Mixed Use designation would apply in Capitola Village. The increase to the number of housing units would be the same as the proposed Plan, therefore there would be no impact compared to the proposed Plan.

Overall, under this alternative, the only change would be the reduced FAR, and the goals, policies, and actions under the proposed Plan would still be adopted. As such, the communitywide goals in the Land Use Element would ensure that new development is compatible with neighboring land uses and development; provide for a mixture of land uses that cater to the needs of people of all ages, backgrounds, and abilities; ensure that land use decisions balance the needs, interests, and concerns of Capitola's residents, visitors, and workers; and ensure that land use patterns enhance Capitola's long-term economic viability.

Under this alternative, there would be no impacts with respect to consistency with the Monterey Bay National Marine Management Plan (MBNMSP) because a reduced floor area ratio would not affect the provisions of the MBNMSP, provided the increase in housing units and projected population would be similar.

As such, provided that the only change under this Alternative would be a slightly lower FAR, resulting in 126,349 less square footage at buildout, in the 41st Avenue Corridor and Capitola Village, this alternative would result in *similar* impacts compared to the proposed Plan.

6.2.2.9 NOISE

As discussed in Chapter 4.9, the only noise-related impacts from buildout of the proposed Plan would result from groundborne vibration associated with construction activities. However, with implementation of mitigation measures the proposed Plan would result in less than significant impacts related to groundborne vibration.

The Reduced Commercial FAR Alternative consists of increasing the maximum allowable commercial FAR in the 1989 General Plan to 1.0 in the 41st Avenue Corridor and Capitola Village to allow for more commercial development. Development under either the Reduced Commercial FAR Alternative or the proposed Plan would result in additional noise from construction activities and the resulting increase in traffic associated with future development. Further, both the Reduced Commercial FAR Alternative and the proposed Plan would allow for more intense non-residential development. Groundborne vibration impacts associated with the Reduced Commercial FAR Alternative are anticipated to be similar to the impacts related to the proposed Plan, and would be reduced to less than significant levels with implementation of mitigation measures. Under the Reduced Commercial FAR Alternative, cumulative long-term operation noise would be incrementally reduced, and compliance with the proposed Plan's goals, policies, and actions, as well as adherence to the City's Noise Ordinance would result in less than significant impacts related to noise. Although the Reduced Commercial FAR Alternative would nominally lessen long-term operational noise, increased development over existing conditions would still occur. As such, this alternative is similar to the proposed Plan, and would have *similar* impacts when compared to the proposed Plan.

6.2.2.10 POPULATION AND HOUSING

The proposed Plan, as discussed in Chapter 4.10, Population and Housing, would not induce substantial growth, displace substantial numbers of existing housing units, nor displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. Therefore, impacts with respect to population and housing were determined to be less than significant.

Under the Reduced Commercial FAR Alternative, the estimated increase in the number of residents and housing units is the same as the proposed Plan. Under the Reduced Commercial FAR Alternative, the proposed Plan would be adopted, however, would result in slightly less FAR in the 41st Avenue Corridor and Capitola Village, which would not impact housing or population. As such, under this Alternative and the proposed Plan, there would be an increase in residents by 280, and would result in an additional 80 housing units at buildout.

Therefore, because the increase in residents and the number of housing units are equal amongst this Alternative and the proposed Plan, this Alternative would result in *similar* impacts in comparison to the proposed Plan.

6.2.2.11 PUBLIC SERVICES

The proposed Plan would not result in significant impacts related to the provision of public services, including fire and police services, schools, recreational facilities, or libraries.

Under the Reduced Commercial FAR Alternative, the proposed Plan would be adopted; however, with a FAR that is slightly lower than what is proposed. Because the number of housing units and overall increase in residents in Capitola would be the same under this alternative and the proposed Plan at an increase of 80 housing units and 280 residents, the impacts to libraries and schools would be the same, all of which were determined to result in less than significant impacts, as discussed in Chapter 4.11, Public Services. Additionally, under this alternative, the proposed Plans goals, policies, and actions that would seek to ensure the adequate provision of public services would be adopted.

Therefore, because the only change under this alternative in comparison to the proposed Plan would be that the FAR is reduced, the number of housing units would be similar to the proposed Plan and, therefore *similar* impacts would occur.

6.2.2.12 PARKS AND RECREATION

As discussed in Chapter 4.12, Parks and Recreation, impacts to parks and recreational facilities would not result in significant impacts as a result of buildout of the proposed Plan.

Under this alternative, potential factors which could affect recreation include the increase in the number of residents which could visit parks, as well as the increase in the number of housing units. Additional impacts to parks and recreational facilities could result from the increase in the number of jobs, in which employees could potentially visit existing parks, however policies contained in the proposed General Plan would ensure that non-residential uses consider impacts to adjacent parks, as discussed in Chapter 4.12 of this Draft EIR.

When compared to the proposed Plan, the increase in residents and housing units would be the same. As such, the impacts would be the same as discussed in chapter 4.12, Recreation of this Draft EIR, in which all impacts were determined to be less than significant. Additionally, since housing units would be developed in already identified sites suitable for development, there would be no loss to park lands in Capitola. Therefore, under this alternative when compared to the proposed Plan, the impact would result in *similar* impacts.

6.2.2.13 TRANSPORTATION AND TRAFFIC

As discussed in Chapter 4.13, Transportation and Traffic, of this Draft EIR, impacts to transportation and traffic would result in a significant impact associated with the operation of the Porter Street and Highway 1 northbound ramps intersection with buildout of the proposed Plan. All other transportation and traffic impacts would be reduced to a less-than-significant level with incorporation of mitigation.

As indicated in Chapter 4.13, five study intersections would operate at a deficient LOS with buildout of the proposed Plan. The Reduced Commercial FAR Alternative would allow for new development on existing vacant land or through redevelopment of currently developed land, similar to the proposed Plan. Although non-residential buildout would be slightly lower under the Reduced Commercial FAR Alternative when compared to the proposed Plan, it is anticipated that similar significant impacts would occur under the Reduced Commercial FAR Alternative due to the growth allowed by the Reduced Commercial FAR, as well as regional traffic. As with the proposed Plan, the Reduced Commercial FAR Alternative encourages an improved multi-modal system, reduced VMT, and increased use of alternative modes of transportation. Thus, in comparison to the proposed Plan, the Reduced Commercial FAR Alternative would have *similar* impacts as the proposed Plan.

6.2.2.14 UTILITIES AND SERVICE SYSTEMS

As discussed in Chapter 4.14, Utilities and Service Systems, of this Draft EIR, the proposed Plan would result in significant unavoidable project and cumulative project impacts associated with the need for new water supply utilities. All other utilities impacts would be reduced to less-than-significant levels.

The Reduced Commercial FAR Alternative and the proposed Plan would allow for new development, increasing demand for water, sewer, stormwater, and solid waste utilities and services. Although the proposed Plan would allow for greater development when compared to the Reduced Commercial FAR Alternative, increased growth under either the proposed Plan or Reduced Commercial FAR Alternative would potentially result in greater demand for water supply beyond existing conditions. As discussed in Chapter 4.14 of this Draft EIR future water demand could be met with supplies from existing entitlements and resources, provided the planned desalination plant is built as proposed. However, as construction of the desalination plant is uncertain, under both the proposed Plan and Reduced Commercial FAR Alternative a significant and unavoidable impact would occur. The goals, policies, and actions that address future utilities provision would also be adopted as part of the Reduced Commercial FAR Alternative. Thus, the Reduced Commercial FAR Alternative would have *similar* impacts as the proposed Plan.

6.2.2.15 GREENHOUSE GAS EMISSIONS

As discussed in Chapter 4.15, Greenhouse Gas Emissions, of this Draft EIR, the proposed Plan would result in significant and unavoidable GHG emissions impacts associated with the overall increase in trips and VMT, energy use, water use and wastewater generation, and solid waste disposal.

The Reduced Commercial FAR Alternative would allow for new development on existing vacant land or through redevelopment of currently developed land, similar to the proposed Plan. The increase in residential population would remain the same as the proposed Plan under this Alternative. However, employment would be approximately 6 percent lower under the Reduced Commercial FAR Alternative. GHG emissions would be reduced by approximately 6 percent as compared to the proposed Plan and would exceed the MBUAPCD's proposed threshold of 2,000 MTCO₂e. Thus, the Reduced Commercial FAR Alternative is considered to result in an *insubstantial improvement* compared to the proposed Plan.

6.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of the environmentally superior alternative in an EIR. Based on the above analysis, summarized in Table 6-2, the environmentally superior alternative is the Reduced Commercial FAR Alternative. The Reduced Commercial FAR Alternative would result in less non-residential development than the proposed Plan, and therefore would reduce traffic and demand for water and other utilities, and would generate fewer GHG emissions. However, as shown in Table 6-2, this alternative would not substantially reduce growth such that the impacts of the proposed Plan would be avoided.

As stated in Section 3, Project Description, the following Guiding Principles are included in the proposed Plan and outline the objectives of the proposed Plan:

- Community Identity. Preserve and enhance Capitola's intimate small-town feel and coastal village charm. Ensure that all areas of Capitola, not just the Village, possess a unique, memorable, and high-quality identity. Promote Capitola's reputation as a community that is sustainable, welcoming, historic, and family-friendly.
- Community Connections. Provide year-round opportunities for residents of all ages to meet and gather in public places. Enhance the ability for residents to engage in civic life. Ensure that all neighborhoods enjoy access to high-quality community events, services, and amenities that foster community connections.
- Neighborhoods and Housing. Protect and enhance the quality of life within residential neighborhoods. Strive for neighborhoods that are stable, inclusive, and friendly. Minimize impacts to neighborhoods—such as noise, cut-through traffic, and overflow parking—caused by new development.
- Environmental Resources. Embrace environmental sustainability as a foundation for Capitola's way of life. Protect and enhance all natural resources—including the beaches, creeks, ocean, and lagoon—that contribute to Capitola's unique identity and scenic beauty. Reduce greenhouse gas emissions and prepare for the effects of global climate change, including increased flooding and coastal erosion caused by sea-level rise.
- Economy. Support a local economy that is vibrant, diverse, and dynamic. Create a brand identity for Capitola that is grounded in the city's unique identity. Support local businesses, "green" businesses, and employers that provide jobs for Capitola residents.
- Fiscal Responsibility. Practice fiscally responsible municipal decision making to avoid shifting today's costs to future generations.
- Mobility. Provide a balanced transportation system that accommodates the needs of automobiles, pedestrians, and bicycles. Reduce dependence on the automobile with a complete network of sidewalks, trails, and pathways, and support development patterns that encourage the use of public transportation. Promote transportation options that are safe and convenient for all residents, including youth, seniors, and persons with disabilities.
- Health and Safety. Promote a safe and healthy community for people of all ages. Ensure that residents, businesses, and visitors are protected from natural and man-made disasters. Continue to provide excellent public services that support the public well-being while enhancing a sense of community.

Overall, the Reduced Commercial FAR Alternative would be similar to the proposed Plan and would generally meet the project objectives. However, because less commercial development would be permitted under the Reduced Commercial FAR Alternative, the alternative would not meet the "Economy" objective as well as the proposed Plan. With less commercial development permitted in the 41st Avenue Corridor and Capitola Village, this alternative would not provide as many opportunities to grow the local economy.

ALTERNATIVES

7. CEQA Mandated Sections

This chapter provides an overview of the impacts of the proposed Plan based on the analyses presented in Sections 4 through 6 of this Draft EIR (DEIR). The topics covered in this chapter include impacts found not to be significant, significant irreversible changes, and growth inducement. A more detailed analysis of the effects the proposed Plan would have on the environment and proposed mitigation measures to minimize significant impacts is provided in Chapters 4.1 through 4.15.

7.1 IMPACTS NOT FOUND TO BE SIGNIFICANT

CEQA Guidelines Section 15128 allows environmental issues for which there is no likelihood of significant impact to be "scoped out" and not analyzed further in the EIR. This section explains the reasoning by which it was determined that buildout of the proposed Plan would have no impact to agricultural, forestry, and mineral resources.

7.1.1 AGRICULTURE AND FORESTRY RESOURCES

There are no operating farms within the Plan Area or lands currently zoned for agricultural use. According to the State of California Department of Conservation, there is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the City of Capitola.¹ The Plan Area is primarily designated as urban and built-up land. In addition, there are no Williamson Act contracts within the Plan Area.² Thus, the proposed Plan would not result in the conversion of farmland to non-agricultural use or conflict with existing zoning for agricultural use or a Williamson Act contract.

There are no forest resources, timberland resource zones, or active timberland production areas within the Plan Area. Furthermore, there are no lands zoned as forest land. Thus, the proposed Plan would not result in the conversion of forest land to non-forest use or conflict with existing zoning for forest land.

¹ State of California Department of Conservation, California Important Farmland Finder, http://maps.conservation.ca.gov/ciff/ciff.html, accessed on October 21, 2013.

² State of California Department of Conservation, Santa Cruz County Williamson Act FY 2009/2010, ftp://ftp.consrv.ca.gov/pub/dlrp/wa/santacruz_09_10_WA.pdf, accessed on October 21, 2013.

CEQA MANDATED SECTIONS

7.1.2 MINERAL RESOURCES

There are no mineral resource production areas within the Plan Area and there are no lands designated for mineral resource production. Thus, the proposed Plan would not result in the loss of a known mineral resource of value to the region or of a locally-important mineral resource recovery site.

7.2 SIGNIFICANT IRREVERSIBLE CHANGES DUE TO THE PROPOSED P

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which a proposed project or plan would commit nonrenewable resources to uses that future generations would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed below.

7.2.1 LAND USE CHANGES THAT COMMIT FUTURE GENERATIONS

As described in Chapter 3, Project Description, of this DEIR, the proposed Plan generally maintains the land use pattern of the current General Plan. Residential and commercial land use designations have been consolidated and reduced and two new mixed-use designations have been added. The multiple community facilities designations have been consolidated into a single Public/Quasi-Public designation, while the remaining designations have been maintained. Development under the proposed Plan would generally involve development and redevelopment of previously disturbed sites in urbanized areas. Although increased development would be allowed under the proposed Plan, development would be relatively consistent with the growth anticipated for the Plan Area by AMBAG's regional growth forecasts, which the exception of housing units, which would be slightly greater. The Plan estimates development of housing opportunity sites consistent with the 2007-2014 Housing Element, which would result in greater housing growth than AMBAG's projections by approximately 60 more units. However, based on the available sites and Capitola's development history, this projection is considered reasonable and appropriate.

7.2.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Irreversible changes to the physical environment could occur from the accidental release of hazardous materials associated with development activities. However, compliance with the applicable regulations and implementation of the goals, policies, and actions in the proposed Plan, as discussed in Chapter 4.6, Hazards and Hazardous Materials, would reduce this potential impact to a less-than-significant level. No other irreversible damage is expected to result from the adoption and implementation of the proposed Plan.

7.2.3 LARGE COMMITMENT OF NON-RENEWABLE RESOURCES

Implementation of development allowed under the proposed Plan would result in the commitment of limited, renewable resources such as lumber and water. In addition, development allowed by the proposed Plan would

irretrievably commit nonrenewable resources for the construction of buildings, infrastructure, and roadway improvements. These nonrenewable resources include mined minerals such as sand, gravel, steel, lead, copper, and other metals. Buildout of the proposed Plan also represents a long-term commitment to the consumption of fossil fuels, natural gas, and gasoline. Increased energy demands would be used for construction, lighting, heating, and cooling of residences, and transportation of people within, to, and from Capitola. However, the proposed Plan includes several policies and actions to encourage energy and water conservation, alternative energy use, waste reduction, alternatives to automotive transportation, and green building, including, but not limited to, the following:

- Policy OSC-1.1 Sustainable Decisions and Actions. Ensure that City policies, programs, and actions promote sustainability goals by protecting natural resources, reducing greenhouse gas emissions, and preparing for the effects of climate change.
- Policy OSC-1.2 Resource Allocation. Prioritize environmental sustainability in the City's annual budget and allocation of other City resources.
- Policy OSC-1.3 Connection to the Natural Environment. Promote the public's connection to the natural environment as a way to build community, strengthen civic pride, and encourage environmental stewardship.
- Policy OSC-1.4 Regional Partnerships. Continue to work with neighboring cities, Santa Cruz County, the Association of Monterey Bay Area Governments (AMBAG), and other governmental agencies to promote sustainability throughout the region.
- Policy OSC-1.5 New Development. Ensure that all new development projects in Capitola incorporate sustainable building techniques.
- Policy OSC-1.6 City Purchasing Practices. Demonstrate environmental stewardship through City purchasing policies and practices.
- Action OSC-1.1 City Purchasing Policy Amendment. Amend the City's purchasing policies to prioritize green business practices and local business.
- Action OSC-1.2 Education Partnerships. Form partnerships with local schools and community organizations to support programs aimed at teaching young people about environmental stewardship.
- Policy OSC-2.1 Climate Action Plan. Ensure that all City policies, programs, and actions are consistent with the Capitola Climate Action Plan.
- Policy OSC-2.2 Regional Collaboration. Participate fully in regional, State, and federal efforts to reduce greenhouse gas emissions and mitigate the impacts resulting from climate change.
- Action OSC-2.1 Climate Action Plan. Implement strategies in the Climate Action Plan to achieve Capitola's GHG reduction target.
- Action OSC-2.2 Climate Action Plan Updates. Update the Climate Action Plan as required by State law. Updates will include:
 - An updated GHG inventory.

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- An overview of new knowledge on the causes of global warming and anticipated impacts of climate change.
- An assessment of the appropriateness and adequacy of Capitola's GHG reduction target.
- An assessment of the cost effectiveness of measures.
- An evaluation of the effectiveness of existing programs.
- Modifications to goals, policies, and strategies as needed to achieve the GHG reduction target.
- Policy OSC-4.1 On-Site Energy Generation. Encourage on-site energy generation in Capitola, including wind and solar, provided that significant adverse environmental impacts associated with such facilities can be mitigated.
- Policy OSC-4.2 Grid-Neutral Development. Encourage grid-neutral development that produces at least as much electricity as it consumes in a year.
- Policy OSC-4.3 Photovoltaic Panels. Encourage the installation of photovoltaic panels on new homes and businesses.
- Policy OSC-4.4 Solar Heaters. Encourage the use of solar water and pool heaters.
- Policy OSC-4.5 Solar Access. Protect existing development from the loss of solar access where possible.
- Policy OSC-4.6 Passive Solar Design. Encourage passive solar design in new development, in which window placement and building materials help to collect and maintain solar heat in the winter and reflect solar heat in the summer.
- Action OSC-4.1 Climate Action Plan. Implement measures in the Climate Action Plan intended to promote renewable energy sources and alternative fuels.
- Action OSC-4.3 Tree Protection Ordinance. Amend the Tree Protection Ordinance to allow solar access and passive solar design in new and existing development.
- Policy OSC-5.1 City Project Design. Ensure that all City development projects serve as models of energyefficient building design.
- Policy OSC-5.2 New Development Design. Encourage new development to incorporate energy-efficient design features for HVAC, lighting systems, and insulation that exceed Title 24 standards.
- Policy OSC-5.3 Public Outreach. Participate in the efforts of other regional, State, and federal agencies to provide outreach to residents, businesses, and property owners on programs, incentives, and regulations to increase energy efficiency.
- Policy OSC-5.4 Support for Energy Efficiency. Continue to support organizations that promote energy efficiency and offer assistance to residents and businesses that wish to increase their energy efficiency.
- Policy OSC-5.5 Solar Orientation. Require new development to incorporate measures that reduce energy use through solar orientation by taking advantage of shade, prevailing winds, landscaping, and sunscreens.
- Policy OSC-5.6 City Staff Expertise. Ensure that all plan review and building inspection staff are knowledgeable about green building materials, techniques, and practices.

- Policy OSC-5.7 Grants for Energy Efficiency. Continue to pursue grants to address existing energy inefficiencies in City facilities.
- Policy OSC-5.8 Budget for Reduction Measures. Conduct periodic energy audits of City facilities and include any feasible energy cost reduction measures in the annual budget.
- Action OSC-5.1 City Development Codes. Periodically review and as needed update City development codes and regulations to promote innovative energy-efficient technologies.
- Action OSC-5.2 Green Building Ordinance. Periodically review and if needed amend Capitola's Green Building Ordinance to ensure effectiveness of the regulations relative to Title 24 standards. Consider repealing the Green Building Ordinance if it becomes redundant with Title 24 standards.
- Action OSC-5.3 Green Business Program. Continue to make energy improvements to City facilities to maintain Capitola's certification from the Monterey Bay Green Business Program.
- Policy OSC-9.1 Water Use. Maximize the conservation and efficient use of water in new and existing residences and businesses.
- Policy OSC-9.2 Drought-Tolerant Landscaping. Utilize native, drought-tolerant plants for all City landscaping activities.
- Policy OSC-9.3 Public Outreach. Work with water service providers, local non-profits, and other environmental organizations to educate the public about water issues and conservation measures.
- Action OSC-9.1 Greywater. Evaluate opportunities to develop and implement a greywater reclamation system for landscaping and other non-potable water uses for domestic, commercial, and industrial consumers. Encourage households and new developments to implement greywater reclamation systems.
- Action OSC-9.2 City Conservation Goals. Establish water conservation goals for City buildings and operations.
- Action OSC-9.3 Water Efficiency Audits. Conduct a study to consider requiring water efficiency audits at point of sale for commercial and residential properties and the use of water conserving plumbing fixtures in all new development permitted in Capitola.
- Action OSC-9.4 Incentives. Encourage water districts to develop incentive programs for the use of droughttolerant landscaping and recycled water for landscape irrigation.
- Policy OSC-11.1 Solid Waste Diversion. Work with Green Waste Recovery to increase community diversion of solid waste to 60 percent by 2020.
- Policy OSC-11.2 City Diversion Rate. Increase the City government waste diversion rate to 90 percent by expanding reduction, recycling, and composting programs; practicing reuse; conducting waste audits; and promoting the purchase of environmentally-friendly office products.
- Policy OSC-11.3 Demolition Material Recycling. Continue to require mandatory recycling of building demolition materials.

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- Policy OSC-11.4 Building Design. Encourage building designs that minimize waste and consumption in construction projects.
- Policy OSC-11.5 Recycling and Composting Space. Require adequate and convenient space for recycling and composting in all buildings.
- Policy OSC-11.6 Reusable Goods. Encourage the use of reusable, returnable, recyclable, and repairable goods through incentives, educational displays and activities, and City purchasing policies and practices.
- Policy OSC-11.7 Consumption/Waste Reduction. Encourage the reduction of waste and consumption from household and business activities in Capitola through public outreach and education activities.
- Policy OSC-11.8 Recycling at Events. Require recycling at all public events.
- Action OSC-11.1 Diversion Incentives. Identify and implement financial incentives to households and businesses to reduce the volume of solid waste sent to the landfill.
- Action OSC-11.2 Restaurant Waste. Evaluate the feasibility of adopting a restaurant food waste reduction program or ordinance. Based on the results of this evaluation, adopt such a program or ordinance, as appropriate.
- Action OSC-11.3 Recycled Asphalt Pavement. Encourage the use of recycled asphalt pavement (RAP) for commercial and community parking lots.
- Action OSC-11.4 City Purchasing Policies. Amend the City's purchasing policies to promote the use of reusable, returnable, recyclable, and repairable goods.
- Policy MO-7.1 Regional Cooperation. Support regional efforts to improve the availability, affordability, reliability, and convenience of public transportation service in Capitola.
- Policy MO-7.2 Transit-Friendly Development. Encourage new development to be located and designed to support increased use of public transportation.
- Policy MO-7.3 Visitors. Support efforts to increase the ability for visitors to travel to Capitola by public transportation.
- Policy MO-7.4 Transit Center. Support the continued presence of the Santa Cruz METRO Transit Center in Capitola Mall or some other alternative location within Capitola.
- Policy MO-7.5 Commutes. Support regional efforts to increase the ability for Capitola residents to commute by public transportation to employment centers in Santa Cruz and Santa Clara County.
- Policy MO-7.6 Rail Service. Work with regional partners to explore the establishment of passenger rail service on the Santa Cruz Branch rail line corridor.
- Policy MO-7.7 Paratransit. Support paratransit alternatives such as the Santa Cruz METRO Paracruz program to ensure that public transportation in the City is responsive to the needs of the young, aged, handicapped and disadvantaged.

- Action MO-7.1 Improved Transit Coverage. Work cooperatively with Santa Cruz METRO to continually
 assess and improve the coverage of transit service in Capitola by providing additional routes and increased
 service frequency. (Responsibility: Public Works)
- Action MO-7.2 Capitola Mall Transit Center. Work with Capitola Mall stakeholders and Santa Cruz METRO to pursue the relocation of the Capitola Mall Transit Center to a more appropriate location on or near the mall property. (Responsibility: Community Development, Public Works)
- Action MO-7.3 Bus Stops. Improve existing bus stops to provide a safe and convenient access consistent with Santa Cruz METRO design standards. (Responsibility: Public Works)

Further, future development under the Plan would be required to comply with all applicable building and design requirements, including those set forth in Title 24 relating to energy conservation. In compliance with CALGreen, the State's Green Building Standards Code, future development would be required to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials. The Plan would also encourage future development to incorporate low impact design (LID) principles and water efficient best management practices into landscape plans, and implementation of policies and actions included in the proposed Plan would promote the application of environmentally sustainable standards for demolition, construction, and operation.

The proposed Plan includes numerous policies and actions that seek to reduce vehicle miles traveled (VMT). These proposed policies and actions are described in detail in Chapter 4.15, Greenhouse Gas Emissions, and Chapter 4.13, Transportation and Traffic, of this DEIR. Implementation of these policies and actions would minimize the increased consumption of fossil fuels that would occur with buildout of the proposed Plan.

Therefore, although the construction and operation of future development under the Plan would involve the use of nonrenewable resources, compliance with applicable standards and regulations and implementation of Plan policies and actions would minimize the use of nonrenewable resources to the maximum extent practicable. As such, the Plan would not represent a large commitment of nonrenewable resources.

7.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development. This section evaluates the proposed Plan's potential to create such growth inducements. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the projected growth would cause adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary, growth-inducing

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impacts consist of growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

The City of Capitola is located in a predominantly urbanized portion of Santa Cruz County, well served by existing roadway and utility infrastructure. Buildout of the proposed Plan is projected to result in approximately 10,198 residents, 5,614 housing units, and 7,370 jobs in Capitola by 2035. Future growth under the proposed Plan would primarily occur through infill development and redevelopment of currently developed sites, as Capitola is primarily developed and urbanized. Significant expansion of existing infrastructure is not anticipated. Thus, implementation of the proposed Plan would not be considered to have substantial adverse growth-inducing impacts.

Growth under the proposed Plan would have beneficial effects as well. The Plan would provide greater opportunities for employment growth, potentially providing jobs for people residing within the city. Future development and redevelopment activities would be pedestrian-friendly, use land efficiently, and promote transportation alternatives. Numerous policies and actions in the proposed Plan, as described above, would serve to minimize the increase in VMT and energy consumption that would result from buildout of the Plan, consistent with regional planning initiatives to address air quality and greenhouse gas emissions concerns.

Overall, while implementation of the Plan would induce growth, this growth would occur incrementally over a period of 20 years and there is a policy framework in place at the local and regional level to ensure that adequate planning occurs to accommodate it.

8. Organizations and Persons Consulted

8.1 LEAD AGENCY

CITY OF CAPITOLA

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CAPITOLA POLICE DEPARTMENT

Rudy Escalante Chief of Police

CAPITOLA PUBLIC WORKS DEPARTMENT

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ORGANIZATIONS AND PERSONS CONSULTED

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Community Planning | Design | Environmental Services Landscape Architecture | Economics | School Planning