

3.9 WATER RESOURCES

This section presents:

- changes to water resources existing conditions and applicable regulations since adoption of the GP/CLUP and certification of the Final EIR in 2006; and
- an analysis of the potential water resources effects of proposed amendments to the existing GP/CLUP.

3.9.1 Existing Conditions

The type, location, and condition of water resources within the City are essentially the same as described in the 2006 Final EIR. Updated information from the Goleta Water District 2008 Water Supply Assessment and State Water Project Delivery Reliability Report 2007 has been incorporated where applicable.

3.9.1.1 Surface Water

The City of Goleta is situated on a coastal terrace bordered on the south by the Pacific Ocean and on the north by the Santa Ynez Mountains. Within Goleta, 12 creeks drain from the foothills south to the Pacific Ocean. Most of the creeks exhibit intermittent, seasonal flows, and creek conditions vary greatly. Sections of some creeks are channelized to provide conveyance for flood flows such as along San Pedro and Tecolotito Creeks. Two creeks, Bell Creek and Tecolote Creek, form small coastal lagoons at the Pacific Ocean. With the exception of Bell Canyon and Tecolote Creeks, the remaining creeks within the City drain to one of two sloughs located to the south of the City boundary: Goleta Slough and Devereux Slough. The creeks in the City are as follows:

- Tecolote Creek;
- Bell Canyon Creek;¹
- Ellwood Canyon Creek;¹
- Winchester Canyon Creek;¹
- Devereux Creek;
- El Encanto Creek;
- Glen Annie (Tecolotito) Creek;
- Los Carneros Creek;
- San Pedro Creek;²
- Las Vegas Creek;²
- San Jose Creek; and
- Maria Ygnacio Creek.

¹ Winchester Canyon and Ellwood Canyon creeks are tributaries to Bell Canyon Creek.

² Las Vegas Creek is a tributary to San Pedro Creek.

Glen Annie Canyon is listed as impaired for nitrate on the Central Coast Regional Water Quality Control Board's Clean Water Act (CWA) Section 303(d) List of Impaired Water Bodies. Glenn Annie Creek (also called Tecolotio Creek) flows through this canyon and discharges into Goleta Slough. No other surface waters in these creeks are listed as impaired on the Clean Water Act (CWA) Section 303(d) list. However, Goleta Slough, which is located beyond the City limits in the City of Santa Barbara and which receives flows from Glenn Annie (Tecolotio), Los Carneros, Las Vegas, San Pedro, Maria Ygnacio, and San Jose Creeks, is listed as impaired for metals, pathogens, priority organics, and sedimentation/siltation.

3.9.1.2 Groundwater

The Goleta Groundwater Basin (GGWB; or Basin) underlies the City of Goleta. The Basin is approximately 9,210 acres (Department of Water Resources 2004), and approximately 8 miles long and 3 miles wide (Urban Watershed Management Plan [UWMP], Goleta Water District 2005, pg. 7). Basin groundwater rights were adjudicated in the Wright Judgment. In the Judgment, the Basin is subdivided into two subbasins: the North-Central Subbasin, and the West Subbasin. In much of the technical literature, the Basin is divided into three subbasins: the North Subbasin, the Central Subbasin, and the West Subbasin. Consistent with the Goleta Water District's Urban Water Management Plan (2005), this EIR follows the later nomenclature of three subbasins. Figure 3.9-1 shows the Goleta Groundwater Basin and subbasins.

The majority of useable groundwater in storage in the GGWB is present within the Central Subbasin, which is about 4 miles long and 2 miles wide (Goleta Water District 2005). The Central Subbasin is separated from the North Subbasin by a fault that appears to form a hydraulic impediment to groundwater flow. The boundary between the North and West subbasins is characterized by significant changes in water quality and hydraulic characteristics that may be related to an overall facies change and/or change in source rock material in underlying sediments (Goleta Water District 2005). The North and Central Subbasins are believed to have a combined total of about 30,000 to 60,000 acre-feet (AF) of operational storage (Goleta Water District 2005, pg. 9).

Well hydrographs indicate that periods of historically high groundwater levels occurred in the mid 1940s, the early 1970s, and in 2004 (Goleta Water District 2005, pg. 9). Historic low groundwater levels occurred in the 1990s. Wells located throughout the basin indicate that water levels have been increasing throughout the basin since 1991 (Department of Water Resources 2004), but are still below sea level as of 2004. The basin is protected from seawater intrusion by the presence of uplifted bedrock along the More Ranch Fault (Goleta Water District 2005, pg. 9).

The active area of recharge for the GGWB is in the lower reaches of the various creeks as they flow across the permeable sediments in the North Subbasin. Recharge is minor in the more fine-grained shallow sediments in the Central and West Subbasins, although Goleta Water District (GWD) wells in the Central Subbasin provide artificial sources of recharge as discussed under the Water Supply and Demand setting below.

Groundwater quality in the basin is characterized as being of a calcium bicarbonate nature with total dissolved solid (TDS) concentrations ranging from 700 to 800 milligrams per liter (Department of Water Resources 2004). The average TDS concentration in the basin is 755 milligrams per liter based on an analysis of four public supply wells (Department of Water Resources 2004). Wells were sampled, and the Basin was found to contain levels of iron, magnesium, and hydrogen sulfide that do not meet Federal and State secondary (aesthetic)

drinking water regulations. These dissolved substances are removed by utilizing filtration and oxidation (Goleta Water District 2005, pg. 40). No information is available regarding other groundwater quality impairments. The EPA has identified the Goleta area as having high levels of naturally occurring radon gas in soils and groundwater. Radon gas is known to cancer. There is no detailed data on radon gas in any of the applicable information sources.

3.9.1.3 Flooding

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) categorize and rank areas that are susceptible to flooding. Because the City has multiple watersheds draining down from the Santa Ynez Mountains, there are also multiple flood rankings throughout the City. Figure 3.9-2 shows the 100-year and 500-year flood zones in and adjacent to the City.

Most of the urban areas with structures are defined as *Zone X* according to FEMA's FIRMs (FEMA 2006). Zone X indicates areas that are outside the 500-year floodplain (i.e., areas having 0.2 percent or lower annual chance of a flood). Some portions of the City are within the 500-year floodplain, and 640 acres within the City are identified as within the FEMA-designated 100-year floodplain. The most notable is the floodplain associated with San Jose Creek and San Pedro/Las Vegas Creeks, which includes two of the City's three major commercial areas.

Tsunamis pose another flooding hazard within the City. A tsunami is a great sea wave produced by earth movement (e.g., fault movement, landslides) or volcanic eruption under the earth's surface. These waves are relatively low and harmless in the open ocean, but they can reach substantial heights when they approach shallow water depths near shore. Tsunamis can cause severe flooding and erosion in coastal areas, which can result in loss of life and destruction of property.

A seismic event on any moderate offshore fault could result in a tsunami, which would affect the project area. Examples of tsunamis in the vicinity of Goleta include the November 4, 1927, tsunami, which was initiated by a major earthquake off the coast of Point Arguello, and the 1812 tsunami in Santa Barbara, which was initiated by an earthquake-induced landslide. The Point Arguello tsunami was recorded on tide gages as far away as Hawaii and reached heights of 6 feet above mean sea level (msl) on the coasts of Santa Barbara and San Luis Obispo counties (County of Santa Barbara 1979). The Santa Barbara tsunami wiped out many coastal villages and destroyed ships (U.S. Geological Survey 2005). Under certain tidal and storm conditions, a tsunami could affect lands up to 20 to 25 foot elevations and potentially impact areas as high as 40 feet above msl (County of Santa Barbara 1991 in City of Goleta 2004a). The areas most subject to the effects of a tsunami would be along the oceanfront.

Coastal areas are generally prone to tsunamis, but studies have been conducted showing that the City could be particularly susceptible to tsunamis because of a submarine landslide complex, the Goleta slide, that occurs off the coast of Goleta. Failure of this complex could initiate a nearshore tsunami (Greene et al. 2006).

Tsunami run-up and the extent of inland flooding would depend on the individual triggering event, the orientation of the coast, offshore bathymetry, and on-shore topography. A 10-foot high sea wave is considered the most probable in the area, and a contour elevation of 40 feet above msl was used in planning the tsunami risk limit. Figure 3.9-2 shows the potential tsunami run-up areas. For the most part, tsunami run-up would be stopped by the coastal cliffs and would not proceed much further inland. However, there are multiple areas where a tsunami may

inundate further inland. Devereux Slough, located at the middle-western portion of the City, is a low-lying area. Devereux Slough may be impacted by a tsunami up to approximately Phelps Road. A smaller run-up area is located at campus lagoon, next to Goleta Point. The largest tsunami run-up area is in and around Goleta Slough. The run-up area of Goleta Slough reaches the Santa Barbara Airport to the north, the Devereux Slough run-up area to the west, and Rancho Goleta Lake to the east. However, if the tsunami wave were very large, most of the City would be inundated.

3.9.1.4 Discharge Controls

Stormwater runoff may carry pollutants from *nonpoint* sources such as city streets, parking lots, lawns, gardens, and industrial areas to surface waters. Runoff from roads and parking lots carry oil and other gasoline-related contaminants. Typical pollutants in stormwater runoff from lawns and agricultural areas include pesticides, herbicides, and nutrients from fertilizers.

Discharges within the City's creek system are regulated under the National Pollutant Discharge Elimination System (NPDES) permit program. The City has obtained coverage under the Phase II Stormwater General NPDES Permit (No. CAS000004), which is discussed in more detail under the Regulatory Setting below. The City has multiple programs that implement the permit and help prevent contaminants from reaching waterways. One program is the City's catch basin cleaning program, which involves routine cleaning and maintenance of the City's catch basins. A street sweeping program also helps prevent debris and sediments from entering waterways.

3.9.1.5 Water Supply and Demand³

GWD supplies water to the City, University of California, Santa Barbara Airport, and water users in the unincorporated County of Santa Barbara (Goleta Water District 2005, pg. 2). The District's water supply facilities include over 200 miles of pipelines, the Corona Del Mar water treatment plant, and eight reservoirs.

GWD relies on four sources of water to meet its existing and future demands: (1) surface water via the Cachuma Project; (2) surface water from the State Water Project (SWP); (3) groundwater from the Goleta Groundwater Basin; and (4) recycled water.

Cachuma Project

The Cachuma Project is operated by the Bureau of Reclamation and consists of Bradbury Dam, which impounds water along the Santa Ynez River and forms Lake Cachuma, and various water conveyance facilities (including the Tecolote Tunnel and South Coast Conduit). The Cachuma Project is the primary water source to the GWD and provides the district with 36.25 percent, or 9,322 acre-feet per year (AFY), of the Cachuma Project's current operational yield (25,714 AFY). The Corona Del Mar treatment plant processes this raw water to make it suitable for domestic uses. Other recipients (member units) of Cachuma Project water include the City of Santa Barbara, Montecito Water District, the Carpinteria Valley Water District, and the Santa Ynez Water Conservation District Improvement District #1. Spill water from Bradbury Dam is sometimes available for use by Cachuma Project member units, including the GWD, to use in lieu of groundwater consumption or to recharge local groundwater basins. The spill water is not

³ The water supply and demand information given here is taken from the Goleta Water District's 2005 Final Urban Water Management Plan (UWMP). The UWMP contains additional detail regarding water supply and demand in the City.

included in the total water supply calculations because it is an unreliable long-term water source (Goleta Water District 2005).

State Water Project

Water from the SWP is conveyed to the GWD's Corona Del Mar water treatment plant via the Tecolote Tunnel and the South Coast Conduit. In 1991, the District purchased 4,500 AFY of SWP water via a water supply agreement with the Central Coast Water Authority (CCWA). The CCWA is a joint powers authority that operates and maintains facilities to deliver SWP water to the CCWA's nine members, including GWD. In 1994, GWD increased its allotment of SWP water to 7,450 AFY in an effort to improve the reliability of the SWP to meet the District's planned future demand for water. However, the District only has a share of the CCWA's SWP conveyance facilities. Therefore, despite having a total allotment of 7,450 AFY of SWP water, GWD plans on only receiving 4,500 AFY of SWP water during a normal year because of the variation in SWP deliveries and the GWD's share of the CCWA facilities.

Groundwater

The Goleta Groundwater Basin is another source of water to GWD. The Basin is an adjudicated groundwater basin, meaning that a court-directed process regulates groundwater extraction, storage, and replenishment. Production and storage rights to the Basin were determined in the 1989 Wright Judgment (Wright et al. v. Goleta Water District), which determined that GWD has the right to produce 2,350 AFY and has the right to defer producing (i.e., it can "bank") its annual groundwater entitlement. In addition, the Wright Judgment mandated that GWD has the right to inject surface water supplies into the Basin and later utilize those supplies, in addition to the District's entitlement. Currently, GWD has stored an additional 43,417 AF in the Goleta Groundwater Basin (Goleta Water District 2008). GWD can access its annual entitlement and additional (banked) water via its nine major production wells. As of spring 2006, six of the wells can be used for conjunctive surface water and groundwater uses (i.e., inject surface water to recharge groundwater or pump groundwater). The estimated current production capacity of GWD wells is 4,200 AFY, and is expected to increase to 6,700 AFY (Goleta Water District 2008).

Recycled Water

Recycled water is made available to the GWD via the Goleta Sanitary District. Currently, 19 recycled water users, including several golf courses, the UCSB campus, and other irrigation users, use 1,000 AFY of tertiary-treated effluent. The wastewater treatment plant can produce a maximum of 1,500 AFY of recycled water (Goleta Water District 2005).

Future and Dry Years Supplies

Existing and future water supplies available to GWD during a normal year, a single critical dry year, and multiple dry years are detailed in Table 3.9-1. The water supplies for each year type displayed in Table 3.9-1 could represent the available future water supplies in any year from 2005 through 2030, depending on climate conditions. Therefore, all potential climatic scenarios should be considered when comparing future supplies and future demands.

A critical dry year is a year with the lowest surface water runoff in the watersheds that affect GWD's water supplies. The driest years of record in the Santa Ynez River watershed (affecting the Cachuma Project supplies) and in northern California (affecting the SWP supplies) are 1951 and 1977, respectively. Runoff in these years reduced available water supplies to 74 percent of

GWD's total allotment from the Cachuma Project and 20 percent of GWD's full SWP entitlement.

Multiple dry years are defined as a period of 6 consecutive years with the lowest combined total runoff. Projected water supplies from the Cachuma Project and SWP during multiple dry years range from 74 to 100 percent and 23 to 70 percent, respectively, of the total allotments based on historical water data (Goleta Water District 2005, pgs. 15–17).

SWP deliveries to the GWD during critical dry or multiple dry years may change in the future based on the Department of Water Resources' (DWR's) SWP Delivery Reliability Report. Excerpts from the SWP Delivery Reliability Report indicate that deliveries could be as low as 7 percent and 35 percent of normal deliveries in a single dry year and a multiple (6-year) dry period, respectively (Department of Water Resources 2008, pg 52). The projected supplies in Table 3.9-1 reflect data published in the Water Supply Assessment (Goleta Water District 2008, pg 14).

**TABLE 3.9-1
PROJECTIONS OF WATER SUPPLY SOURCES AND AMOUNTS AVAILABLE DURING A
NORMAL YEAR, A SINGLE DRY YEAR, AND MULTIPLE DRY YEARS IN 2010**

Water Supply Source	Available Supply in AFY (actual production would be less to match demand)							
	Normal Year	Critical Dry Year ^a	Multiple Dry Years ^a					
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cachuma Project	9,322	6,898	9,322	9,322	9,322	6,898	6,898	6,898
State Water Supply	4,500	522	2,533	2,533	2,533	2,533	2,533	2,533
Groundwater ^a (Legal Entitlement)	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350
Groundwater (Conjunctive Use)	0	400	400	400	400	400	400	400
Groundwater above 1972 Water Levels ^b	0	0	1,450	1,450	1,450	0	0	0
SAFE Groundwater Drought Buffer ^c	0	1,450	0	0	0	1,450	1,450	1,450
Cachuma Surface Water Supply Buffer ^d	3,584	3,584	3,584	3,584	3,584	3,584	3,584	3,584
Recycled Water (maximum production)	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Total	22,756	18,204	22,639	22,639	22,639	20,215	20,215	20,215

a Total well capacity in 2010 is 4,200 AFY

b Zero values in this row of the table do not connote that there is no groundwater above the 1972 water levels.

c Critical Dry Year pumping and Multiple Dry Year pumping in Year 4 through Year 6 comes from the SAFE Groundwater Drought Buffer since SAFE provides for use of the Drought Buffer when supplies from Cachuma are reduced.

d Between 1994 and 2007, the District had an average Cachuma Surface Water Supply Buffer of 3,584 AFY.

Water Demand

Water demand in the GWD's service area is primarily dependent on the number of water users (i.e., population) and the types of water uses. Current and future water demand by the City of Goleta and GWD during a normal year is shown in Table 3.9-2. GWD's current water demand, calculated based on the average quantity of water consumed during 1999 to 2004, is 14,318 AFY (Goleta Water District 2005, pg. 23). Total current water use by the City during a normal year is 5,528 AFY for residential, commercial, and industrial uses (Goleta Water District 2005, pg. A-6). Future projected water uses by the City will peak at 6,792 AFY by 2025. Critical dry year and multiple dry year demands were only calculated district-wide and do not include detailed information on the City's demands.

**TABLE 3.9-2
CURRENT AND PROJECTED WATER DEMANDS (AFY) BY THE DISTRICT AND THE CITY
DURING A NORMAL YEAR, A CRITICAL DRY YEAR, AND MULTIPLE DRY YEARS**

Water User	Current	2010	2015	2020	2025	2030
Normal Year						
District	14,318	14,813	15,368	15,890	16,476	17,010
City of Goleta	5,528	5,843	6,159	6,476	6,792	6,792
Critical Dry Year						
District	N/A	14,813	15,368	15,486	15,486	15,486
Multiple Dry Years						
District	N/A	14,813	15,368	15,890	16,476	17,010
Source: Goleta Water District 2005, pgs. 41–43 and Appendix A.						

3.9.2 Changes in Regulatory Framework

3.9.2.1 Federal and State

Since adoption of the GP/CLUP in 2006, there have been no changes to the following regulations that are relevant to the proposed amendments categorized as Track 3 revisions to the GP/CLUP:

- Clean Water Act,
- Federal Flood Insurance Program,
- Executive Order 11988 (Floodplain Management),
- Federal Coastal Zone Management Act,
- Porter-Cologne Water Quality Control Act,
- California Coastal Act,
- California Environmental Quality Act, and
- State of California General Plan Law and General Plan Guidelines.

3.9.2.2 Local

Since adoption of the GP/CLUP and certification of the Final EIR, the City adopted three General Plan amendments. First, the City adopted an amendment to Subpolicy CE 10.3 as part

of the approval of the Village at Los Carneros. The amendment changed prohibitions against post-development stormwater discharge rates and was adopted on February 19, 2008. Second, the City adopted various clarifying amendments as part of the City-sponsored Track 2 amendments. The Track 2 amendments were adopted and the related CEQA Addendum was certified by the City Council on June 17, 2008. Third, the City adopted a land use designation re-classification (General Industrial to General Commercial) as part of the approval of the Harwin Family Trust project. All amendments are reflected in the text of the GP/CLUP cited in the Supplemental EIR.

The City has also established a new ordinance to the municipal code, Chapter 25b, titled "Change of Owner, Operator, or Guarantor for Certain Oil and Gas Facilities." No other changes to the GP/CLUP and no new ordinances relative to land use designations and densities have been enacted by the City since October 2006. There have been modifications to enabling ordinances and resolutions related to the Design Review Board's review of projects and process. Moreover, in fall 2008, the City modified the Goleta Growth Management Ordinance to exempt from its consideration the Goleta Valley Cottage Hospital Replacement Projects, along with associated medical office space and parking.

3.9.3 Project Impacts and Mitigation

As in the 2006 Final EIR, the evaluation in this Supplemental EIR concerns the potential effects on water resources that would result from implementation of the GP/CLUP policies and, in this case, from alternate versions of those policies in the form of GP/CLUP amendments.

3.9.3.1 Thresholds of Significance

The thresholds of significance applied in this Supplemental EIR are the same as those in the Final EIR.

City of Goleta Environmental Thresholds Manual

The following thresholds would be applicable to individual future projects that may occur in the City's boundaries. A significant water quality impact is presumed to occur if a project:

- is located within an urbanized area of the City and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- increases the amount of impervious surfaces on a site by 25 percent or more;
- results in channelization or relocation of a natural drainage channel;
- results in removal or reduction of riparian vegetation or other vegetation (excluding nonnative vegetation removed for restoration projects) from the buffer zone of any streams, creeks, or wetlands;
- is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial stormwater regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);

- discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the RWQCB's Basin Plan, or otherwise impairs the beneficial uses of a receiving waterbody;
- results in a discharge of pollutants into an impaired waterbody that has been designated as such by the SWRCB or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or
- results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB (County of Santa Barbara 1992, pg. 156).

Projects that are not specifically identified on the above list or are located outside of the "urbanized areas" may also have a project-specific stormwater quality impact. Stormwater quality impacts associated with these projects must be evaluated on a project-by-project basis for a determination of significance. The potential impacts of these projects should be determined in consultation with the Santa Barbara County Water Agency, Flood Control Division, and RWQCB. The issues that should be considered are:

- the size of the development;
- the location (proximity to sensitive waterbodies, location on hillsides, etc.);
- the timing and duration of the construction activity;
- the nature and extent of directly connected impervious areas;
- the extent to which the natural runoff patterns are altered;
- disturbance to riparian corridors or other native vegetation on or off site;
- the type of stormwater pollutants expected; and
- the extent to which water quality best management practices are included in the project design (County of Santa Barbara 1992, pg. 157).

CEQA Thresholds

The following thresholds, based on Appendix G of the CEQA Guidelines, were used and provide that a project may have a significant impact on water resources if it would result in:

- alteration of an existing drainage pattern or creek, which would result in erosion, siltation, or increased surface runoff;
- increased exposure of residents to storm flooding due to increased runoff in the local drainage system;
- degraded water quality as a result of sediments and other pollutants transported in stormwater runoff;
- depleted groundwater supplies or substantial interference with groundwater recharge;
- insufficient water supplies available from existing entitlements and resources;
- placement of structures that would impede or redirect flood flows within a 100-year flood hazard area;
- placement of housing within a 100-year flood hazard area;
- exposure of people or structures to a risk of loss, death, or injury involving flooding, including as a result of dam failure; and

- risk of inundation by a tsunami, seiche, or mudflow.

3.9.3.2 Discussion of Relevant GP/CLUP Policies

The action under consideration by the City is to amend the existing GP/CLUP to approve the changes in Alternatives 2a, 2b, or 3; combine or eliminate changes proposed in Alternatives 2a, 2b, and 3; or choose not to change the GP/CLUP at this time (Alternative 1).

The Conservation, Land Use, Public Facilities, Safety, and Transportation Elements of the City's GP/CLUP contain policies that protect water resources, ensure adequate infrastructure (i.e., water supplies) for new development, or minimize the risk to humans and structures from water resource-related hazards. The following GP/CLUP policies are relevant to water resources.

Conservation Element

The Conservation Element of the City's GP/CLUP identifies policies designed to preserve and protect environmental resources such as hydrology and water quality to the maximum extent feasible while allowing reasonable development in conformance with the provisions of the Land Use Element. Specific pertinent water resource-related policies in the Conservation Element include: the designation of protected streams, streamside protection areas, wetlands, and marine habitat areas; and measures to maintain, protect, or restore stream, wetland, and marine habitat resources. These measures protect water resources through activity/use restrictions in protected areas, pollution prevention measures (especially related to new development), recommended best management practices (BMPs), stormwater management requirements, protection of the local watersheds, drainage and stormwater management plans, and erosion control measures. To protect the City's water supply, the Conservation Element mandates that the City will promote water conservation by coordinating with GWD and requiring specific water conservation measures for new development and City facilities.

- Policy CE 2: Protection of Creeks and Riparian Areas
- Policy CE 3: Protection of Wetlands
- Policy CE 6: Protection of Marine Habitat Areas
- Policy CE 7: Protection of Beach and Shoreline Habitats
- Policy CE 10: Watershed Management and Water Quality
- Policy CE 15: Water Conservation and Materials Recycling

Land Use Element

The Land Use Element also contains water-resource-related policies that are intended to protect environmental resources and water supplies. Policies related to water resources require:

- new development to adhere to high environmental standards consistent with the standards in the Conservation Element;
- new development to only occur if adequate facilities (i.e., sufficient supplies of water and delivery infrastructure, stormwater management facilities) are available concurrent with development;
- measures to protect groundwater quality following the decommissioning of oil facilities; and

- a restriction of the urban services boundary (with respect to water supply), as well as prohibition of new private service systems and/or wells and septic systems for water or sewer.
- Policy LU 1: Land Use Plan Map and General Policies
- Policy LU 10: Energy-Related On- and Off-Shore Uses
- Policy LU 12: Land Use in Goleta's Environs

Safety Element

City policies in the Safety Element focus on protecting humans and structures from potential hazards. Water-resource related hazards include floods, mudslides, seiches, and tsunamis. The Safety Element's policies related to water-resources include:

- the identification of areas of known safety hazards, including seismic and seismically induced hazards, flooding hazards, and soil- and slope-related hazards;
- the consideration of exposure of new development to water-resource related hazards;
- multiple tsunami-related measures that ensure adequate safe harbor on site for existing and future development in the tsunami hazard area;
- development of an emergency notification and evacuation plan in response to a tsunami warning; and
- other emergency preparedness measures.

Educational materials regarding tsunamis would also be provided as part of these policies.

- Policy SE 1: Safety in General
- Policy SE 4: Seismic and Seismically Induced Hazards
- Policy SE 5: Soil and Slope Stability Hazards
- Policy SE 6: Flood Hazards
- Policy SE 8: Oil and Gas Industry Hazards
- Policy SE 10: Hazardous Materials and Facilities
- Policy SE 11: Emergency Preparedness

Public Facilities Element

The purpose of the Public Facilities Element's water-resource related policies is to ensure that adequate water and water supply facilities are available to meet the water demands of the City. Key policies in the Public Facilities Element related to water resources include:

- coordination between the City and GWD regarding new development, water demands, and water supplies;
- monitoring and evaluation of the capacity of water supply and delivery systems;
- encouragement of long-term water conservation;
- encouragement of treated wastewater recycling to reduce water consumption;
- ensuring critical water supply facilities are located outside of geologic or hydrologic hazard areas; and

- allowing new development only when required infrastructure (i.e., water supply and delivery systems, stormwater management facilities) is available.
- Policy PF 4: Water and Sewer Facilities
- Policy PF 8: General Standards for Public Facilities
- Policy PF 9: Coordination of Facilities with Future Development

Transportation Element

The Transportation Element, also known in State law as the Circulation Element, guides the continued development and improvement of the transportation system to support land uses planned in the Land Use Element. Only one City policy in the Transportation Element is relevant to water resources. This policy states that new transportation facilities should be designed in a manner that minimizes impacts on natural drainage patterns and protects water quality while accommodating transportation needs.

- Policy TE 6: Street Design and Streetscape Character

3.9.3.3 Project Impacts

In this Supplemental EIR, the evaluation of the potential water resources impacts of proposed amendments considers the potential effects of individual changes on water resources in the City and on the mitigation provided by the Conservation Element policies for the impacts of GP/CLUP implementation.

For purposes of the analysis, the sources of direct and indirect impacts remain as identified in the Final EIR. Identified impacts were evaluated in terms of their potential significance based on the thresholds indicated in Subsection 3.9.3.1 and the classes of impacts (I through IV) used by the City for CEQA analyses. Cumulative impacts were examined in terms of the combined effects of the impacts associated with GP/CLUP implementation and foreseeable projects in areas adjacent to the City. Residual impacts are examined in terms of the potential for significant effects to occur after mitigation of any Class I, Class II, or significant cumulative impacts.

Methodology

The analysis in this Supplemental EIR is intended to determine how impacts of GP/CLUP implementation and the mitigating effect of the policies in the GP/CLUP would change if some or all of the proposed amendments were adopted. To determine this, each policy change proposed in Alternatives 2a, 2b, and 3 was evaluated in terms of three questions:

1. Is the change to a policy cited as mitigation for a Class II impact of the existing GP/CLUP?
2. If the change were accepted, would implementation of the amended GP/CLUP result in greater or different impacts than those analyzed in the 2006 Final EIR?
3. Does the change have the potential to result in potentially significant impacts? If yes, is there feasible mitigation to reduce the effects?

In response to Question 1, Table 3.9-3 provides a tabular summary of those policies cited as mitigation for a Class II water resources impact identified in the existing GP/CLUP. Responses to Questions 2 and 3 are addressed in the analyses for each impact, as follows. A tabular summary of this analysis is presented in the alternative screening tables in Appendix B.

**TABLE 3.9-3
POLICIES PROPOSED FOR AMENDMENT THAT ARE
CITED AS MITIGATION FOR CLASS II WATER RESOURCES IMPACTS IN FINAL EIR**

Proposed Policy Change (ID #)	Potential Impact Identified with One or More Action Alternative
CE 2	Impact 3.9-1. Degradation of Water Quality from Construction-Related Contaminants Impact 3.9-3. Changes in Groundwater Supply Resulting from New Development Impact 3.9-4. Alterations in Existing Drainage Patterns and Downstream Flooding and Erosion Impact 3.9-7. Increases in Point Source and Nonpoint Source Pollution from New Development Impact 3.9-9. Water Quality Impacts from Discharge to Surface Water Bodies Where Water Bodies are 303(d) listed
CE 3	Impact 3.9-1. Degradation of Water Quality from Construction-Related Contaminants
CE 10	Impact 3.9-1. Degradation of Water Quality from Construction-Related Contaminants Impact 3.9-3. Changes in Groundwater Supply Resulting from New Development Impact 3.9-4. Alterations in Existing Drainage Patterns and Downstream Flooding and Erosion Impact 3.9-7. Increases in Point Source and Nonpoint Source Pollution from New Development Impact 3.9-9. Water Quality Impacts from Discharge to Surface Water Bodies Where Water Bodies are 303(d) listed

The following water resources impact analysis considers issues related to proposed amendments to the City of Goleta GP/CLUP. Those issues include water resources impacts resulting from changes in the locations of large regional development, revisions to growth management directives, access to open space, protection of biological resources, and traffic mitigation options. The analysis also includes review of cumulative water resources impacts associated with development within, and adjacent to, the City of Goleta.

Class I Impacts—None

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, there are no short- or long-term significant and unavoidable impacts to water resources associated with implementation of the City's adopted GP/CLUP.

Alternative 2a: City-Initiated Revisions. Same as Alternative 1.

Alternative 2b: Options Associated with City-Initiated Revisions. Same as Alternative 1.

Alternative 3: SEIR Recommended Revisions. Same as Alternative 1.

Class II Impacts

Short-Term Impacts

Impact 3.9-1. Degradation of Water Quality from Construction-Related Contaminants

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, construction-related earth disturbing activities would occur during future development and infrastructure projects associated with buildout of the GP/CLUP. These activities could cause soil erosion and sedimentation to local waterways. Construction and grading would also require heavy equipment with potential to leak hazardous materials that may include oil and gasoline. In addition, improper use of fuels, oils, and other construction-related hazardous materials, such

as pipe sealant, may also pose a threat to surface or groundwater quality. This impact is considered potentially significant.

Policies That Would Reduce Impact 3.9-1. Adherence to the requirements of the NPDES General Construction Permit and the provisions for new construction under the City's Municipal Stormwater NPDES permit would reduce these impacts. In addition, implementation of the following GP/CLUP policies would reduce impacts to a less-than-significant level. Policies proposed for amendment are indicated in bold type:

- **Policy CE 2: Protection of Creeks and Riparian Areas**
- **Policy CE 3: Protection of Wetlands**
- Policy CE 6: Protection of Marine Habitat Areas
- **Policy CE 10: Watershed Management and Water Quality**

Specifically, Policies CE 2, CE 3, and CE 6 restrict activities within riparian zones, wetlands, and marine habitat areas, respectively, reducing the potential for construction-related water quality degradation in these areas. Policy CE 10 most directly addresses new development, requiring that it does not result in the degradation of water quality. The policy includes requirements related to development siting, design, incorporation of BMPs into project design, implementation of stormwater management requirements, drainage and stormwater management plans, and other measures to effectively protect water quality. The measures contained in these policies are sufficient to ensure that impacts on water quality are less than significant.

Alternative 2a: City-Initiated Revisions. Alternative 2a has the same potential for short-term significant adverse impacts to water resources as the existing GP/CLUP (Alternative 1) and would reduce those impacts through policies that are substantially the same as those in the existing GP/CLUP. As can be seen from the list above, all of the policy amendments applicable to this impact are related to the Conservation Element. Because Alternative 2a includes policy changes that would reduce the minimum width of certain buffers and provide a more detailed list of allowed activities in and near ESHAs, it can be viewed as having a greater potential for temporary short-term impacts than Alternative 1, especially in areas that would have been protected by buffer areas under the existing GP/CLUP. Further, because Alternative 2a changes how ESHAs are formally designated within the City, it is possible that the number of acres and types of ESHA protected from temporary impacts would be fewer than under Alternative 1 and consequently more acres and types would be subject to short-term impacts. Alternative 2a also clarifies how BMPs for stormwater management are implemented. The proposed policy change under CE 10 would ensure that the revised policy language is consistent with the City's adopted Stormwater Management Plan and that these policies are enforced. None of the policy changes under Alternative 2a would amend the GP/CLUP in ways that eliminate or substantially change the requirements to avoid, minimize, and mitigate potentially significant impacts to water quality. In addition, none of the policy changes under Alternative 2a alter the resource protection and permitting requirements for impacts to water quality under Federal and State regulations, including Sections 401 and 404 of the Clean Water Act and Section 1602 of the Fish and Game Code. Accordingly, revisions to the Conservation Element policies under Alternative 2a would have no new or modified impacts to water resources.

Alternative 2b: Options Associated with City-Initiated Revisions. Alternative 2b has substantially the same potential for short-term Class II impacts as Alternative 2a. Alternative 2b differs from Alternative 1 and 2a in that it calls for the City to replace the measures included in ESHA-related

policies in the existing GP/CLUP with a comprehensive habitat management plan and comprehensive guidelines for biological assessments and ESHA determinations within the City. Because Alternative 2b defers to a plan and guidelines not yet developed, it creates an interim scenario in which special-status habitat and species are potentially more at risk from short-term impacts than would occur under Alternative 1 or 2a. However, as with Alternative 2a, none of the policy changes under Alternative 2b would eliminate or substantially change the City policies or applicable Federal and State regulations that apply to the protection of water quality. Accordingly, revisions to the Conservation Element policies under Alternative 2b would have no new or modified impacts to water resources.

Alternative 3: SEIR Recommended Revisions. Alternative 3 has the same potential for short-term significant adverse impacts to water quality from construction-related contaminant as the existing GP/CLUP (Alternative 1) and would reduce those impacts through policies that are substantially the same as those in the existing GP/CLUP. Because Alternative 3 includes policy changes that provide a more detailed list of allowed activities in and near ESHAs as well as reduce the minimum width of buffers for Streamside Protection Areas, it can be viewed as having a greater potential for temporary short-term impacts than Alternative 1, especially in areas that would have been protected by buffer areas under the existing GP/CLUP. However, as with Alternative 2a, the policy changes under Alternative 3 would not eliminate or change requirements under other City policies and under Federal and State regulations regarding mitigation for significant impacts to water quality and special-status water resources. Accordingly, revisions to the Conservation Element policies under Alternative 3 would have no new or modified impacts to water resources.

Long-Term Impacts

Impact 3.9-2. Adequacy of Water Supplies to Serve New Development

Impact 3.9-5. Construction of Structures or Housing in a 100-Year Flood Hazard Area

Impact 3.9-6. Risk to New Development from Inundation by a Tsunami, Mudslide, or Seiche

None of the policies included in the 2006 Final EIR as measures to reduce the significance of the above-listed impacts are proposed for amendment. Accordingly, the proposed GP/CLUP amendments would not affect the analysis presented in Section 3.9.3.3 of the 2006 Final EIR for these impacts, and no further discussion need be presented in this Supplemental EIR.

Impact 3.9-3. Changes in Groundwater Supply Resulting from New Development

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, new commercial, residential, and industrial developments could be constructed as a result of the GP/CLUP. To meet the water demands of these new developments, particularly during a critical dry year or multiple dry years, GWD may need to increase groundwater pumping. However, the increased groundwater pumping would be limited to GWD's allocation (2,350 AFY) of the adjudicated groundwater basin's supply, plus banked groundwater up to GWD's 5,600 AFY pumping capacity. Under no circumstances would GWD pumping exceed the District's allocation and banked groundwater amount. Therefore, new development would not be expected to decrease the groundwater supply such that other groundwater users were affected.

However, new development would also result in increased amounts of impervious surface, reducing the ability for stormwater to percolate and recharge the groundwater basin. The primary recharge zone consists of the existing stream system in the northern part of the City, which would not be affected by buildout of the GP/CLUP. In other areas that may provide lower

levels of groundwater recharge, the GP/CLUP does not call for a substantial increase in development density that would affect groundwater recharge. Nevertheless, buildout of the GP/CLUP could incrementally increase the amount of impervious surfaces and decrease the amount of rainfall that is able to recharge the groundwater basin. This is a potentially significant impact.

Policies That Would Reduce Impact 3.9-3. Several GP/CLUP policies would help protect recharge areas, allow for stormwater infiltration, and limit the amount of new impervious surfaces. Implementation of the following GP/CLUP policies would reduce this impact to a less-than-significant level. Policies proposed for amendment are indicated in bold type:

- **Policy CE 2: Protection of Creeks and Riparian Areas**
- **Policy CE 10: Watershed Management and Water Quality**
- Policy CE 15: Water Conservation and Materials Recycling
- Policy PF 4: Water and Sewer Facilities

Policy CE 2 would restrict development in streamside areas; because these are some of the primary groundwater recharge areas, this measure allows for continued infiltration of stormwater. Policy CE 10 has an objective to prevent the degradation of the quality of groundwater basins in and adjacent to Goleta, as well as minimizing the amount of new impervious surfaces that could reduce percolation to the aquifer. Policy CE 15 contains an objective that involves conserving scarce water supply resources and limiting the use of groundwater. Finally, under Policy PF 4, the City would seek to protect the quantity of groundwater resources. The measures contained in these policies are sufficient to ensure that impacts on groundwater are less than significant.

Alternative 2a: City-Initiated Revisions. Alternative 2a has the same potential for long-term significant adverse impacts to water resources as the existing GP/CLUP (Alternative 1) and would reduce those impacts through policies that are substantially the same as those in the existing GP/CLUP. As can be seen from the list above, all of the policy amendments applicable to this impact are related to the Conservation Element. Because Alternative 2a includes policy changes that would reduce the minimum width of certain buffers and provide a more detailed list of allowed activities in and near ESHAs, it can be viewed as having a greater potential for long-term impacts to groundwater supply than Alternative 1. Further, because Alternative 2a changes how ESHAs are formally designated within the City, it is possible that the number of acres and types of ESHA protected from development impacts would be fewer than under Alternative 1. Consequently, a slight increase in acres of impervious surfaces could potentially result, reducing the volume of water being infiltrated and the total amount of groundwater recharge. However, this increase would be negligible compared to total impervious surfaces expected at buildout and none of the policy changes under Alternative 2a would amend the GP/CLUP in ways that eliminate or substantially change the requirements for stormwater management. Additionally, the aforementioned reduction in buffer areas applies only to development which would occur near ESHAs, not development in general. Requirements to treat, filter, or infiltrate stormwater would be the same as under Alternative 1 and other Federal and State regulations. Accordingly, revisions to the Conservation Element policies under Alternative 2a would have no new or modified impacts to water resources.

Alternative 2b: Options Associated with City-Initiated Revisions. Alternative 2b has substantially the same potential for long-term impacts as Alternative 2a. Alternative 2b differs from Alternative 1 and 2a in that it calls for the City to replace the measures included in ESHA-related policies in

the existing GP/CLUP with a comprehensive habitat management plan and comprehensive guidelines for biological assessments and ESHA determinations within the City. As with Alternative 2a, none of the policy changes under Alternative 2b would eliminate or substantially change the City policies or applicable Federal and State regulations that apply to stormwater management. Accordingly, revisions to the Conservation Element policies under Alternative 2b would have no new or modified impacts to water resources.

Alternative 3: SEIR Recommended Revisions. Alternative 3 has the same potential for long-term significant adverse impacts to water resources as Alternative 2a. Because Alternative 3 includes policy changes that provide a more detailed list of allowed activities in and near ESHAs as well as a reduction in the minimum width of buffer areas, it can be viewed as having a greater potential for impacts to groundwater recharge than Alternative 1. However, as with Alternative 2a, the policy changes under Alternative 3 would not eliminate or change requirements under other City policies and under Federal and State regulations regarding stormwater management. Accordingly, revisions to the Conservation Element policies under Alternative 3 would have no new or modified impacts to water resources.

Impact 3.9-4. Alterations in Existing Drainage Patterns and Downstream Flooding and Erosion

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, new development, infrastructure, and public facilities resulting from buildout of the GP/CLUP have the potential to alter existing drainage patterns. While development is unlikely to be approved in locations that would directly impede or redirect flows (e.g., within active floodways), new development would result in new impervious surfaces, reducing the amount of precipitation that would infiltrate and increasing the volume of stormwater runoff. This could result in an increase in drainage flows and cause peak flows to occur earlier, potentially causing flooding or erosion impacts downstream. This impact is considered potentially significant.

Policies That Would Reduce Impact 3.9-4. The GP/CLUP policies indicate that construction in such areas would be discouraged unless no other location is available for the facility. In this case, a detailed hydraulic study would need to be performed to determine the impacts associated with the construction. Implementation of the following GP/CLUP policies would reduce this impact to a less-than-significant level. Policies proposed for amendment are indicated in bold type:

- Policy LU 1: Land Use Plan Map and General Policies
- **Policy CE 2: Protection of Creeks and Riparian Areas**
- Policy CE 6: Protection of Marine Habitat Areas
- Policy CE 7: Protection of Beach and Shoreline Habitats
- **Policy CE 10: Watershed Management and Water Quality**
- Policy PF 8: General Standards for Public Facilities
- Policy SE 1: Safety in General
- Policy SE 6: Flood Hazards
- Policy TE 6: Street Design and Streetscape Character

Specifically, Policy LU 1 requires that the zoning code include performance standards related to drainage and stormwater runoff, and that infrastructure capacities (including stormwater infrastructure) are sufficient to serve the new development or will be available by the time that

the development is constructed. Policy CE 2 contains requirements that protect natural drainage systems from development, as well as restoration to maintain or improve flow capacity and minimize channel erosion. Policy CE 6 requires that new beach or ocean bluff areas adjacent to marine and beach habitats are sited and designed to prevent impacts, such as erosion, that could significantly degrade the marine ESHAs. Policy CE 7 contains protections for marine habitat areas and beach and shoreline areas that would reduce the potential for drainage impacts. Policy CE 10 addresses new development, requiring implementation of stormwater management requirements and drainage and stormwater management plans. Under Policy PF 8, construction of public buildings will be discouraged in areas that would alter drainage patterns and cause downstream flooding. Policy SE 1 would similarly require mapping and restrictions on development in hazardous areas, including areas of flood hazard. Policy SE 6 contains components to minimize damage to structures and the danger to life caused by stream flooding, dam failure inundation, and other flooding hazards. Policy TE 6 requires that new transportation facilities be designed in a manner that minimizes impacts on natural drainage patterns. The measures contained in these policies are sufficient to ensure that impacts on drainage are less than significant.

Alternative 2a: City-Initiated Revisions. Alternative 2a has the same potential for long-term significant adverse impacts to water resources as the existing GP/CLUP (Alternative 1) and would reduce those impacts through policies that are substantially the same as those in the existing GP/CLUP. As can be seen from the list above, both of the policy amendments applicable to this impact are related to the Conservation Element. Because Alternative 2a includes policy changes that would reduce the minimum width of certain buffers and provide a more detailed list of allowed activities in and near ESHAs, it can be viewed as having a greater potential for long-term impacts on drainage patterns than Alternative 1. Although Alternative 2a changes how ESHAs are formally designated and there may be potentially fewer types of ESHA protected from impacts than under Alternative 1, it does not affect requirements for drainage patterns and downstream impacts from flooding or erosion. None of the policy changes under Alternative 2a would amend the GP/CLUP in ways that eliminate or substantially change the requirements to avoid, minimize, and mitigate potentially significant impacts to drainage patterns. In addition, none of the policy changes under Alternative 2a alter the resource protection and impact mitigation requirements that apply to drainages and stormwater management under Federal and State regulations, including Section 401 and 404 of the Clean Water Act and Section 1602 of the Fish and Game Code. Accordingly, revisions to the Conservation Element policies under Alternative 2a would have no new or modified impacts to water resources.

Alternative 2b: Options Associated with City-Initiated Revisions. Alternative 2b has substantially the same potential for long-term Class II impacts as Alternative 2a. Alternative 2b differs from Alternative 1 and 2a in that it calls for the City to replace the measures included in ESHA-related policies in the existing GP/CLUP with a comprehensive habitat management plan and comprehensive guidelines for biological assessments and ESHA determinations within the City. However, as with Alternative 2a, none of the policy changes under Alternative 2b would eliminate or substantially change the City policies or applicable Federal and State regulations that apply to the protection of drainage patterns and downstream resources. Accordingly, revisions to the Conservation Element policies under Alternative 2b would have no new or modified impacts to water resources.

Alternative 3: SEIR Recommended Revisions. Alternative 3 has the same potential for long-term significant adverse impacts to special-status habitats and species as the Alternative 2a. Because Alternative 3 includes policy changes that provide a more detailed list of allowed

activities in and near ESHAs as well as a reduction in the minimum width of buffer areas, it can be viewed as having a greater potential for long-term impacts to drainage patterns than Alternative 1. However, as with Alternative 2a, the policy changes under Alternative 3 would not eliminate or change requirements under other City policies and under Federal and State regulations regarding mitigation for significant impacts to drainage patterns and regulating the quantity of stormwater post-development. Accordingly, revisions to the Conservation Element policies under Alternative 3 would have no new or modified impacts to water resources.

Impact 3.9-7. Increases in Point Source and Nonpoint Source Pollution from New Development

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, collection of contaminants from cars on roadways and parking lots, such as hydrocarbons, metals, and volatile and semi-volatile organics, can wash into local waterways during storm events. In addition, other urban activities such as lawn and landscape maintenance and industrial activities can be a source of nonpoint source contaminants such as pesticides, nutrients, and trash. New development would increase the amount of wastewater generated, with corresponding increases in the volume of treated wastewater that is discharged. Improper transport or storage of hazardous materials at facilities developed under the auspices of the GP/CLUP could result in release of hazardous materials to surface or ground water. Other new commercial or industrial uses could result in point-source discharges associated with production processes that could adversely affect water quality. This impact is considered potentially significant.

Policies That Would Reduce Impact 3.9-7. Adherence to the requirements of the relevant NPDES permitting process, such as obtaining individual NPDES permits for new or increased point source discharges and the source control activities under the City's Municipal Stormwater NPDES permit to address nonpoint source discharges, would reduce these impacts. In addition, implementation of the following GP/CLUP policies would reduce impacts to a less-than-significant level. Policies proposed for amendment are indicated in bold type:

- **Policy CE 2: Protection of Creeks and Riparian Areas**
- Policy CE 6: Protection of Marine Habitat Areas
- Policy CE 7: Protection of Beach and Shoreline Habitats
- **Policy CE 10: Watershed Management and Water Quality**
- Policy SE 8: Oil and Gas Industry Hazards
- Policy SE 10: Hazardous Materials and Facilities
- Policy LU 10: Energy-Related On- and Off-Shore Uses
- Policy PF 4: Water and Sewer Facilities
- Policy TE 6: Street Design and Streetscape Character

Policy CE 2, CE 6, and CE 7 contain numerous measures protecting water quality in stream, marine, and shoreline areas, such as streamside buffers, use restrictions, and implementation of stormwater treatment BMPs for new development. Policy CE 10 specifically addresses water quality protection associated with new development in great detail. Policy SE 8 contains components to minimize the risk of potential short- and long-term hazards associated with the operation of the Venoco Ellwood facilities and other oil and gas extraction, processing, and transportation facilities that could adversely affect water quality in the event of an upset. Policy SE 10 contains similar requirements related to hazardous materials and facilities. Policy LU 10 contains components to promote the discontinuation of onshore processing and transport

facilities for oil and gas, the removal of unused or abandoned facilities, and the restoration of areas affected by existing or former oil and gas facilities within the city. Policy PF 4 requires that new development is connected to the public sewage collection system and therefore protects water quality from the effects of septic systems. Policy TE 6 requires that new transportation facilities be designed in a manner that protects water quality. The measures contained in these policies are sufficient to ensure that impacts related to pollution from new development are less than significant.

Alternative 2a: City-Initiated Revisions. Alternative 2a has the same potential for long-term significant adverse impacts to water resources as the existing GP/CLUP (Alternative 1) and would reduce those impacts through policies that are substantially the same as those in the existing GP/CLUP. As can be seen from the list above, both of the policy amendments applicable to this impact are related to the Conservation Element. Because Alternative 2a includes policy changes that would reduce the minimum width of certain buffers and provide a more detailed list of allowed activities in and near ESHAs, it can be viewed as having a greater potential for slightly increasing water pollution sources near ESHAs than would be expected with Alternative 1. However, none of the policy changes under Alternative 2a would amend the GP/CLUP in ways that eliminate or substantially change the requirements to avoid, minimize, and mitigate potentially significant impacts to water quality. In addition, none of the policy changes under Alternative 2a alter the resource protection and impact mitigation requirements that apply to regulation of water pollution under Federal and State regulations. Accordingly, revisions to the Conservation Element policies under Alternative 2a would have no new or modified impacts to water resources.

Alternative 2b: Options Associated with City-Initiated Revisions. Alternative 2b has substantially the same potential for long-term impacts as Alternative 2a. Alternative 2b differs from Alternative 1 and 2a in that it calls for the City to replace the measures included in ESHA-related policies in the existing GP/CLUP with a comprehensive habitat management plan and As with Alternative 2a, none of the policy changes under Alternative 2b would eliminate or substantially change the City policies or applicable Federal and State regulations that apply to the protection of water resources. Accordingly, revisions to the Conservation Element policies under Alternative 2b would have no new or modified impacts to water resources.

Alternative 3: SEIR Recommended Revisions. Alternative 3 has the same potential for long-term significant adverse impacts to water resources as Alternative 2a. Because Alternative 3 includes policy changes that provide a more detailed list of allowed activities in and near ESHAs and reduces the minimum width of buffers, it can be viewed as having a greater potential for point and non point source pollution than Alternative 1, depending on the type of use. However, as with Alternative 2a, the policy changes under Alternative 3 would not eliminate or change requirements under other City policies and under Federal and State regulations regarding mitigation for impacts to water quality. Accordingly, revisions to the Conservation Element policies under Alternative 3 would have no new or modified impacts to water resources.

Class III Impacts

Short-Term Impacts

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, there are no short-term less-than-significant impacts to water resources associated with implementation of the City's adopted GP/CLUP.

Alternative 2a: City-Initiated Revisions. Same as Alternative 1.

Alternative 2b: Options Associated with City-Initiated Revisions. Same as Alternative 1.

Alternative 3: SEIR Recommended Revisions. Same as Alternative 1.

Long-Term Impacts

Impact 3.9-8. Risk to New Development from Dam Failure and Resultant Flooding

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, the Bradbury Dam is located on Lake Cachuma just north of Goleta. The dam is situated facing west, and the drainage travels west down through the Santa Ynez Valley. In the unlikely scenario that the Bradbury Dam failed, resulting floodwaters would travel through the Santa Ynez Valley, and not south through the Goleta planning area. This impact is considered less than significant; therefore, the 2006 Final EIR did not include policy measures to reduce its significance.

Alternative 2a: City-Initiated Revisions. Alternative 2a has the same potential for long-term less-than-significant impacts to water resources as the existing GP/CLUP (Alternative 1).

Accordingly, Alternative 2a would have no new or modified impacts to water resources Impact 3.9-8.

Alternative 2b: Options Associated with City-Initiated Revisions. Alternative 2b has the same potential for long-term less-than-significant impacts to water resources as the existing GP/CLUP (Alternative 1). Accordingly, Alternative 2b would have no new or modified impacts to water resources Impact 3.9-8.

Alternative 3: SEIR Recommended Revisions. Alternative 3 has the same potential for long-term less-than-significant impacts to water resources as the existing GP/CLUP (Alternative 1). Accordingly, Alternative 3 would have no new or modified impacts to water resources Impact 3.9-8.

Class IV Impacts

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, there are no short- or long-term beneficial (Class IV) impacts to water resources associated with implementation of the City's adopted GP/CLUP.

Alternative 2a: City-Initiated Revisions. Same as Alternative 1.

Alternative 2b: Options Associated with City-Initiated Revisions. Same as Alternative 1.

Alternative 3: SEIR Recommended Revisions. Same as Alternative 1.

3.9.3.5 Cumulative Impacts

Impact 3.9-9. Water Quality Impacts from Discharge to Surface Water Bodies Where Water Bodies Are 303(d) Listed

Alternative 1: No Changes (No Project). Glen Annie Canyon is listed as impaired for nitrate on the Central Coast Regional Water Quality Control Board's Clean Water Act (CWA) Section 303(d) List of Impaired Water Bodies. Glenn Annie Creek (also called Tecolotio Creek) flows through this canyon and discharges into Goleta Slough located beyond the city limits in the City of Santa Barbara. As indicated in the 2006 Final EIR, Goleta Slough has been listed under Section 303(d) of the CWA as impaired for the following constituents:

- metals,
- pathogens,
- priority organics, and
- sedimentation/siltation.

Under this impairment, the Goleta Slough has no remaining assimilative capacity or ability to accommodate additional quantities of these contaminants, irrespective of concentration. These constituents could be gathered from lawn runoff, rooftops, construction areas, and even indoor household runoff. While concentration of constituents in the discharge from any new development is anticipated to be relatively low, this small increase is still considered a significant contribution to cumulative impacts on Goleta Slough.

Policies That Would Reduce Impact 3.9-9, but Not to a Level of Insignificance. While the TMDL process will ultimately address the impairments and develop a plan for reducing the input of contaminants, the process is in its beginning stages and will not be complete until well into the planning horizon of the GP/CLUP. Other measures taken in compliance with the Clean Water Act, such as adherence to the requirements of relevant NPDES permits, would also reduce impacts. In addition, the GP/CLUP contains multiple policies that would help reduce these contaminants. In particular, Policy CE 10, "Watershed Management and Water Quality," would help alleviate sedimentation and siltation issues. Implementation of the GP/CLUP policies listed below would therefore reduce such impacts through the same mechanisms as described under Impact 3.9-7. However, because none of these policies would ensure that there is no cumulative loading of these contaminants to Goleta Slough, they would not reduce project contributions to cumulative impacts on Goleta Slough to a less-than-significant level. Policies proposed for amendment are indicated in bold type:

- **Policy CE 2: Protection of Creeks and Riparian Areas**
- Policy CE 6: Protection of Marine Habitat Areas
- Policy CE 7: Protection of Beach and Shoreline Habitats
- **Policy CE 10: Watershed Management and Water Quality**
- Policy SE 8: Oil and Gas Industry Hazards
- Policy SE 10: Hazardous Materials and Facilities
- Policy LU 10: Energy-Related On- and Off-Shore Uses
- Policy TE 6: Street Design and Streetscape Character

Alternative 2a: City-Initiated Revisions. Alternative 2a has the same potential for long-term significant adverse impacts to water resources as the existing GP/CLUP (Alternative 1) and would reduce those impacts through policies that are substantially the same as those in the existing GP/CLUP. As can be seen from the list above, both of the policy amendments applicable to this impact are related to the Conservation Element. Because Alternative 2a includes policy changes that would reduce the minimum width of certain buffers and provide a more detailed list of allowed activities in and near ESHAs, it can be viewed as having a greater potential for impacts than Alternative 1. Further, because Alternative 2a changes how ESHAs are formally designated within the City, it is possible that the number of acres and types of ESHA protected would be fewer than under Alternative 1. However, it is not known how many of these areas would contribute to contaminant loading of impaired water bodies. None of the policy changes under Alternative 2a would amend the GP/CLUP in ways that eliminate or

substantially change the requirements to treat stormwater runoff or regulate discharges into all waters, including 303(d) listed waterbodies. In addition, none of the policy changes under Alternative 2a alter the water resource protection and impact mitigation requirements that apply to water resources under Federal and State regulations, including the CWA. Accordingly, revisions to the Conservation Element policies under Alternative 2a would have no new or modified impacts to water resources.

Alternative 2b: Options Associated with City-Initiated Revisions. Alternative 2b has substantially the same potential for long-term impacts as Alternative 2a. Alternative 2b differs from Alternative 1 and 2a in that it calls for the City to replace the measures included in ESHA-related policies in the existing GP/CLUP with a comprehensive habitat management plan and comprehensive guidelines for biological assessments and ESHA determinations within the City. This plan may or may not have a provision regarding 303(d) listed waters because the plan and guidelines are not yet developed. However, as with Alternative 2a, none of the policy changes under Alternative 2b would eliminate or substantially change the City policies or applicable Federal and State regulations that apply to the protection of water resources. Accordingly, revisions to the Conservation Element policies under Alternative 2b would have no new or modified impacts to water resources.

Alternative 3: SEIR Recommended Revisions. Alternative 3 has the same potential for long-term significant adverse impacts to special-status habitats and species as Alternative 2a. Because Alternative 3 includes policy changes that provide a more detailed list of allowed activities in and near ESHAs and reduces the width of minimum buffer areas, it can be viewed as having a greater potential for impacts than Alternative 1. However, as with Alternative 2a, the policy changes under Alternative 3 would not eliminate or change requirements under other City policies and under Federal and State regulations regarding total maximum daily load requirements, regulation of discharges into waters, and general protection of water resources. Therefore, revisions to the Conservation Element policies under Alternative 3 would have no new or modified impacts to water resources.

Impact 3.9-10. Cumulative Effects on Water Supply

Alternative 1: No Changes (No Project). As indicated in the 2006 Final EIR, the City's future demands on the Goleta Groundwater Basin in addition to the demands of other users could potentially cause a significant cumulative impact on the groundwater basin's supplies. This cumulative impact is unlikely, however, because the Goleta Groundwater Basin is adjudicated. The adjudication process determines the safe yield of the Basin and distributes appropriate groundwater pumping allocations to various users (including GWD) based on this safe yield. GWD would only pump its annual allocated quantity (2,350 AFY) plus any banked groundwater supplies that are available and needed. Thus, the cumulative groundwater pumping would not exceed the safe yield and groundwater supplies would not be substantially depleted. Therefore, project contributions to cumulative demand on the area's water supply would be considered less than significant.

Alternative 2a: City-Initiated Revisions. Alternative 2a has the same potential for long-term less-than-significant impacts to water resources as the existing GP/CLUP (Alternative 1). Accordingly, Alternative 2a would have no new or modified impacts to water resources
Impact 3.9-10.

Alternative 2b: Options Associated with City-Initiated Revisions. Alternative 2b has the same potential for long-term less-than-significant impacts to water resources as the existing GP/CLUP

(Alternative 1). Accordingly, Alternative 2b would have no new or modified impacts to water resources Impact 3.9-10.

Alternative 3: SEIR Recommended Revisions. Alternative 3 has the same potential for long-term less-than-significant impacts to water resources as the existing GP/CLUP (Alternative 1). Accordingly, Alternative 3 would have no new or modified impacts to water resources Impact 3.9-10.

In sum, the proposed amendments evaluated in this Supplemental EIR would not affect the level of significance of cumulative impacts determined for the 2006 Final EIR.

3.9.3.6 Mitigation

Modifications to Proposed GP/CLUP Policies

Proposed modifications to selected GP/CLUP policies are presented in Chapter 2.0 as amendments to the GP/CLUP. No further modifications are proposed for consideration beyond those identified as alternatives in this Supplemental EIR.

Other Mitigation

No additional mitigation is identified.

3.9.3.7 Residual Impacts

As described under the Cumulative Impact discussion above, Goleta Slough has no remaining assimilative capacity or ability to accommodate additional quantities of metals, pathogens, priority organics, and sediment/silt, irrespective of concentration. Additional inputs of these constituents from new development in the City planning area would result in a significant contribution to cumulative impacts on Goleta Slough. The GP/CLUP contains multiple policies that would help reduce these contaminants. However, because none of these policies would ensure that there is no cumulative loading of these contaminants to Goleta Slough, they would not reduce project contributions to cumulative impacts on Goleta Slough to a less-than-significant level. Therefore, project contributions to cumulative impacts on Goleta Slough would be considered significant and unavoidable. Proposed amendments to the GP/CLUP water resources policies, as amended under any of the alternatives under consideration herein, would not affect this conclusion.