

## 4.10

### **Hydrology, Drainage and Flood Hazards, Wastewater Treatment, Water Quality, and Water Supply**

This section of the EIR contains a description of potential impacts resulting on hydrology, drainage and flood hazards, wastewater treatment, water quality, and water supply of the Hollister Planning Area. The proposed General Plan includes policies that are intended to minimize potential effects of these impacts. As a program EIR (see Section 1 “Introduction” of this EIR), this document contains a number of implementing actions to specifically address potential impacts. Important resources consulted and used for this section of the EIR include background information contained in the documents listed below. These documents are incorporated herein by reference pursuant to CEQA Guidelines.

- (1) **Hollister Area Lessalt Water Treatment Plant Environmental Documents (June 2000).** A Mitigated Negative Declaration and Initial Study was prepared for a three million gallon per day membrane filtration facility to treat San Felipe surface water for delivery to municipal and industrial users. The environmental review for the Lessalt Plant specified that the facility would "reduce the minerals and salts being reintroduced to the groundwater via the sewer systems 'percolation ponds." Its purpose was to "replace groundwater and to only allow for minimal increase in supply." The Mitigated Negative Declaration for Lessalt determined that the project would not be growth inducing because the provision of San Felipe Water replaced water from City wells, did not contribute significant additional water supplies for new growth, and did not involve the extension of any major infrastructure. The San Felipe surface water flowing through the Lessalt Plant, as currently approved and constructed, cannot be used for increased water capacity to serve the Hollister and/or the Sunnyslope County Water District service areas until an Environmental Impact Report which analyses all relevant environmental and growth inducing impacts is prepared and approved.
- (2) **Hollister Area Urban Water Management Plan 2000 (July, 1999).** This Final Report was prepared for the Sunnyslope County Water District, the City of Hollister, and the San Benito County Water District to comply with State and Federal mandates. It addresses water supply and demand in the Hollister area, Water Conservation programs, Water Shortage Contingency Plans, and Water Recycling. The report projects a sustainable water supply for the Hollister area through the year 2020; however that projection includes treated San Felipe Water for Municipal and Industrial use, with the assumption that such treated water would be available to serve urban growth during the 2000-2020 time frame.
- (3) **Groundwater Management Plan Update for the San Benito County Portion of the Gilroy-Hollister Groundwater Basin (Spring, 2004).** The Revised Administrative Final Report and Final Program EIR were prepared for the Water Resources Association of San Benito County. The Groundwater Management Plan Update (GWMP Update) addresses surface and groundwater management as well as wastewater discharges and use of reclaimed water supplies. It includes goals and objectives in order to provide reliable, sustainable, good quality water for existing and future agricultural, and municipal and industrial (M&I) uses in Northern San Benito County (within the Gilroy-Hollister Groundwater Basin). The region encompassed in the GWMP Update includes the City of Hollister. The Administrative

Final Report includes the following chapters: Condition of the Basin; Current and Estimated Future Water Supplies and Demands; Objectives and Criteria for Groundwater Management Plan Implementation; Elements of the GWMP Update (e.g. Water Conservation, Salinity Control, Water Treatment and Importation, Water Banking, Development of New Water Supplies, New Water Distribution Facilities, etc.); Plan Implementation; Program Level Mitigation Measures; and Water Management Strategies and Project Elements for Future Study. This plan has been adopted by all members of the Water Resources Association of San Benito County, including: the City of Hollister, the City of San Juan Bautista, the Sunnyslope County Water District and the San Benito County Water District.

**(4) San Benito County Regional Recycled Water Project - Feasibility Study Report (May, 2004).** This feasibility study was prepared for the San Benito County Water District using grant funding from the State Water Resources Control Board (SWRCB). The purpose of the study was to identify a cost effective water recycling project that would meet the needs of the region. The SBCWD and the SWRCB are sharing costs (up to \$350,000) to develop a Facility Plan for a regional recycled water project. Phase I of the project consists of the aforementioned feasibility study, which includes an assessment of the recycled water market, review of regulatory requirements, development and evaluation of alternatives for water recycling and regionalization of wastewater treatment, selection of a recommended alternative(s), and an assessment of the feasibility of implementation of a regionalized recycled water project. The recommended alternative identified in the Draft Feasibility Study Report involves construction of a recycled water facility at the Hollister Domestic Waste Water Treatment Plant. New pipelines would be required so that the recycled water facility could treat flow from both the Hollister (Domestic and Industrial) and Ridgemark (I&II) Waste Water Treatment Plants. Recycled water (treated to Title 22 Disinfected Tertiary standards) would then be blended with Central Valley Project water and delivered to agricultural customers in the San Juan Valley, utilizing existing San Felipe Water Delivery infrastructure.

**(5) Using CALSIM II for Long-Term Planning (October, 2003).** This Technical Memorandum (TM) was prepared for the San Benito County Water District in order to better understand and utilize the California Simulation Model II (CALSIM II), the planning model for the operations of the Central Valley Project (CVP) and the State Water Project. The TM includes a discussion of water sources for the San Benito County Water District (ground, surface and CVP waters), projected demand, and the future outlook for the District's supply of CVP water. The main body of the TM focuses on CALSIM II, the hydrologic modeling framework developed by the California Department of Water Resources, and its use as a planning/simulation tool. CALSIM II models for SBCWD predict significant variability in available CVP water supplies; simulating certain drought conditions during which agricultural water deliveries would be completely eliminated, and municipal and industrial deliveries would be cutback by as much as 50%. The TM emphasizes the need for long term planning using innovative and integrated approaches, on a regional basis, to maximize the beneficial use of water during periods of limited water supplies. The long-term use of Central Valley Project water (San Felipe) for domestic use in the City of Hollister may be a viable option as the Water Code Division 6 Section 106 identifies the priority for users of this water as being first for domestic and industrial use and

second for agricultural use. This issue will be further explored in the Urban Water Management Plan Update that will be conducted in 2006.

(6) **City of Hollister Draft Storm Water Management Plan (August, 2003)**. The Draft Storm Water Management Plan (Draft SWMP) was prepared in order to comply with State and Federal regulations for Small Municipal Separate Stormwater Systems. The Draft SWMP describes the two drainage basins impacted by Hollister's stormwater runoff and the existing stormwater collection system. Also included in the Draft SWMP are proposals to protect water resources through public education, public participation, and detection and elimination of illicit municipal discharge. Construction site regulations are also proposed in the draft to ensure management of runoff, as well as the use of Best Management Practices for municipal facilities and activities. The Draft SWMP was forwarded to the Regional Water Quality Control Board in June 2004 for review and approval. The SWMP cannot be finalized until all comments and concerns from the RWQCB have been received and addressed.

(7) **Liquefaction Susceptibility of the Hollister Area, San Benito County, California (February, 1998)**. This is a technical report prepared by the U.S. Geological Survey that evaluates risk associated with liquefaction in the Hollister Planning Area during an earthquake. Reference maps are also included that are used in assessing specific project impacts.

(8) **Resolution of the City Council of the City of Hollister Authorizing and Directing the Mayor to Execute a Memorandum of Understanding Between the City of Hollister, San Benito County, and San Benito County Water District for the Hollister Urban Area Water and Wastewater Master Plan (December, 2004)**. The Memorandum of Understanding (MOU) establishes a process and standards for the parties to undertake the cooperative and mutually beneficial development of a comprehensive Master Plan for water supply and wastewater treatment and disposal within the Hollister Urban Area. Construction and other implementation plans for the City of Hollister Wastewater Treatment Facility and improvements to the City's domestic water facilities, that will be required to support planned growth to 2023, will be developed in compliance with the MOU and the Hollister Urban Area Water and Wastewater Master Plan.

## **Hydrology, Drainage and Flood Hazards, Wastewater Treatment, Water Quality, and Water Supply – The Setting**

### *General Hydrological Conditions and Groundwater*

There are two significant surface water features within the Planning Area - the San Benito River and Santa Ana Creek. The San Benito River flows from southeast to northwest in the southern portion of the Planning Area. Much of the Planning Area drains northerly to Santa Ana Creek, which flows into San Felipe Lake, located approximately seven miles north of the Hollister Municipal Airport. San Felipe Lake and San Benito River are tributary to the Pajaro River, which ultimately drains into Monterey Bay. The Pajaro Watershed Authority has determined that Hollister does not contribute to peak flows downstream. However, the Monterey Bay Marine Sanctuary is subject to water quality legislation and regulations, and

the Regional Water Quality Control Board has identified the Pajaro River as an “impaired” water body for its water quality.

Annual rainfall, most of which takes place during the fall and winter, generally limit the amount of surface water in local stream systems. Groundwater recharge occurs mostly through infiltration from the San Benito River and Tres Pinos Creek south of Hollister.

Irrigated acreage has increased from approximately 1,000 acres in 1890 to 20,000 acres in 1929, and to about 50,000 acres currently, with groundwater pumping increasing roughly in proportion to the increase in irrigated acreage. Between 1913 and the beginning of water imports in 1987, average annual groundwater extraction exceeded average annual recharge, resulting in groundwater overdraft and declining water levels.

Existing sources of groundwater recharge in the study area include:

- (1) Local rainfall and surface water in creeks.
- (2) Direct recharge with imported water released to creek channels.
- (3) Indirect recharge from the percolation of imported water used for irrigation.
- (4) Direct recharge using local surface water stored and then released from reservoirs.
- (5) Percolation of treated wastewater.

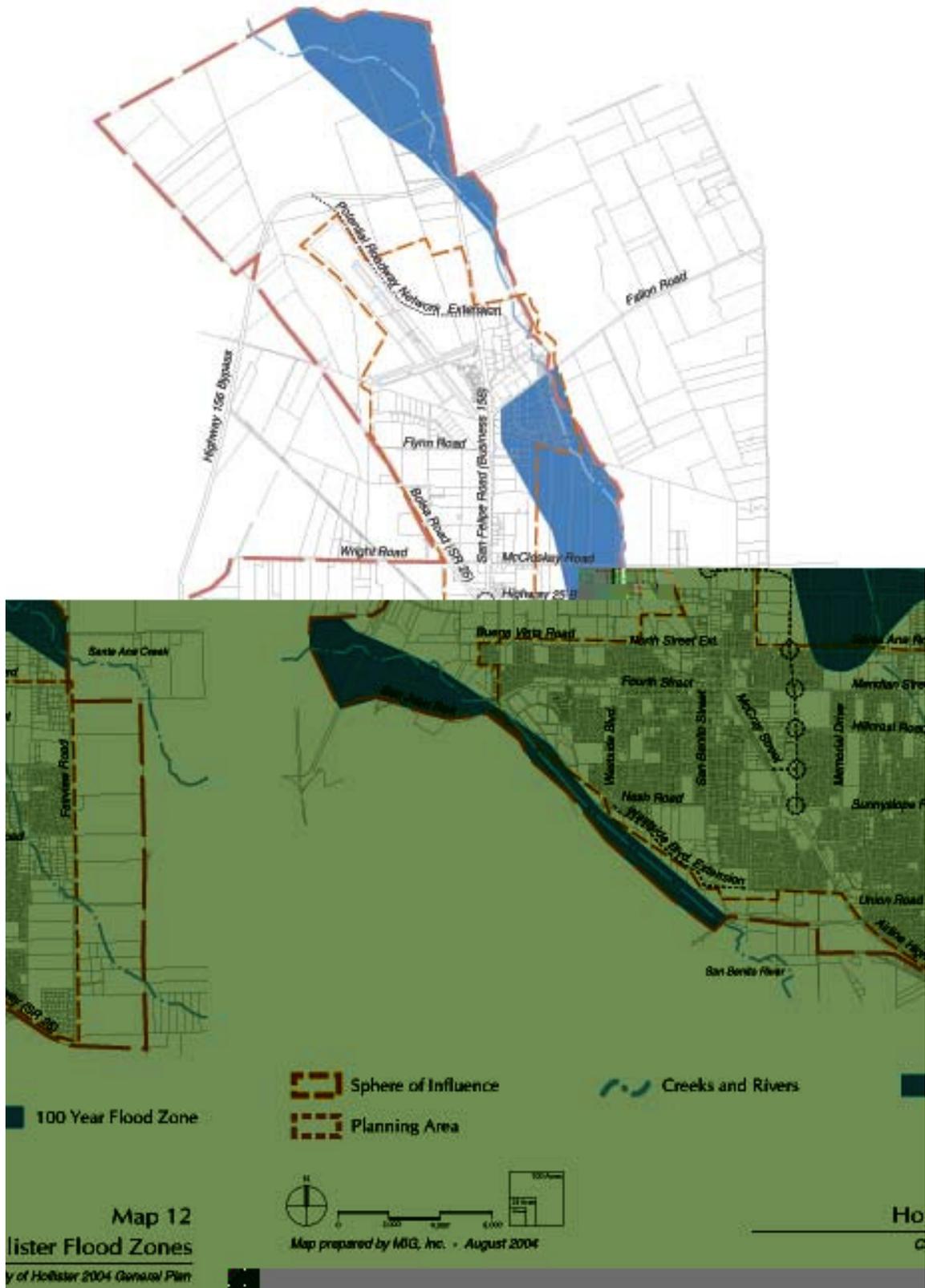
### *Drainage and Flooding*

Portions of Hollister are built on the prehistoric flood plain of the San Benito River. Consequently, the city has regularly encountered flooding problems, at an average rate of once every four to five years. The principal drainage basins in the Hollister Planning Area are the San Benito River and the Santa Ana Creek basins. All runoff from the Planning Area flows to one of these basins. The San Benito River flows through the southern and western portion of the Planning Area, while Santa Ana Creek and its tributary flow through the eastern and northern portions of the Planning Area. Hollister and its environs have historically been subject to flooding and a number of improvements have been installed to drain the area.

In response to growth that has occurred in and around the Planning Area, the City of Hollister commissioned a series of planning and engineering studies to address drainage needs. A number of drainage improvements and detention ponds have been installed. Those that have been completed include the San Juan Road/South Street/Hillcrest Road trunk line, the Rustic Street system including the detention pond, and a downstream portion of the Bundeson storm line south of Nash Road in the Cienega Road area.

The Federal Emergency Management Association (FEMA) has conducted hydrologic analyses to establish peak discharge and frequency relationships for these flooding sources among other streams in the County. (Discharge is the volume of water passing through a given section of a channel expressed in cubic feet per second.) In addition, FEMA has mapped the "Special Flood Hazard Areas" inundated by the 100-year flood. (The 100-year flood is the flood which is statistically anticipated once in a century.) The 100-year flood plain is illustrated in Map 12 from the General Plan.

Figure 17: Hollister Flood Zones (General Plan Map 12)



### *Wastewater Treatment*

Wastewater facilities and treatment are provided by the City of Hollister. The City operates two wastewater treatment and disposal facilities. The Domestic Wastewater Treatment Plant (DWTP) is located west of downtown on both sides of the Highway 156 bypass near the San Benito River. This facility is permitted to treat up to 2.69 million gallons of wastewater per day and percolation ponds at this facility can percolate approximately 2 million gallons of un-disinfected treated wastewater per day. The Industrial Wastewater Treatment Facility is located west of downtown Hollister at the west end of South Street and on the north side of the San Benito River, less than one mile east of the Domestic Water Treatment Facility. Treated wastewater from both facilities is disposed of by percolation, which contributes to localized areas of high groundwater in the Hollister West sub-basin.

The Sunnyslope County Water District operates a domestic wastewater treatment and disposal system south and east of Hollister. The treatment facilities consist of four aerated ponds, and disposal facilities consist of six percolation ponds. The design capacity of the system is 370,000 gallons per day. Wastewater is percolated into the ground in ponds located at the Ridgemark golf course, north of the San Benito River, and along Tres Pinos Creek.

The RWQCB regulates waste discharges to protect beneficial uses through the establishment of Waste Discharge Requirements (WDR) to meet specific water quality objectives. The City of Hollister operates its wastewater treatment and disposal facilities under two sets of WDR5/Monitoring and Reporting Programs: one for the Domestic Wastewater Treatment Facility (RWQCB Order No. 87-47) and one for the Industrial Wastewater Treatment Facility (RWQCB Order No. 00-020).

In September 2002, the RWQCB issued Cease and Desist Order No. R3-2002-0105 to the City of Hollister as a result of the accidental discharge of approximately 15 million gallons of treated, un-disinfected domestic wastewater to the San Benito River channel from Pond 6 of the Hollister Industrial Wastewater Treatment Plant (IWTP). The City is in the design and approval process to build a new treatment plant with increased capacity.

### *Water Quality*

Groundwater quality in the Basin is marginally acceptable for potable and irrigation use. The water quality constituents of greatest concern are salinity, sodium, chloride, sulfate, nitrate, boron, arsenic, hardness and trace elements that occasionally exceed drinking water standards. Constituents that have occasionally exceeded secondary drinking water standards, which deal with the aesthetic quality of the water, include specific conductance, total dissolved solids, chloride, iron, manganese, and turbidity. Almost all groundwater in the Basin has a very high hardness. Hardness (the calcium and magnesium content of water) is not regulated under drinking water standards, but impairs the effectiveness of soap (causing it to form scum) and causes deposits in pipes and water heaters that can contribute to the inefficient operation or failure of water-using appliances or pipes.

There are a wide variety of agricultural and industrial hazardous materials that are handled and stored within the planning area. One of the most pervasively used are the varieties of

organic phosphate pesticides that are applied throughout the agricultural lands that surround the City.

Suppliers of domestic drinking water are subject to federal regulations under the Safe Drinking Water Act (42 U.S.C. 300f et seq.) as well as California Department of Health Services regulations under the California Safe Drinking Water Plan Act (Health and Safety Code Sections 116270-116750). These regulations address primary drinking water standards, or maximum contaminant levels (MCL) for inorganic and organic chemicals and radioactivity. MCLs are based on health protection, technical feasibility, and economic factors. .20 Secondary drinking water standards have also been established to address aesthetic factors, such as taste, smell and clarity.

The State of California requires public water systems to analyze their drinking water for contaminants on a regular basis. Sampling frequency depends on the contaminant, type of water source, and previous sampling results.

According to the Groundwater Management Plan Update (2004) there are a number of known groundwater contamination sites undergoing active investigation and remediation. These sites are all under the supervision of the Regional Water Quality Control Board (RWQCB). A total of seven sites are presently undergoing remediation (2004 data), five of which are leaking gasoline/MTBE storage tanks. At this time, no municipal supply wells have been affected by MTBE.

The quality of storm-water runoff in the Planning Area affects the biotic health of inland waterways. Contaminated runoff is generated and concentrated over impervious surfaces in the urbanized portions of the watersheds and enters storm drains, eventually reaching San Benito River, Santa Ana Creek, flood water basins or other bodies of water, including the Pajaro River and Monterey Bay. Constituents in urban storm-water typically include fine sediments, heavy metals, trace organics (e.g. pesticides, PCBs), nutrients, and oil and grease.

Imported CVP (San Felipe) water is of generally excellent quality. Sources of CVP water include Shasta Lake, Whiskeytown Reservoir, Clair Engel Lake, Folsom Lake, New Melones Reservoir, Millerton Lake, the Delta-Mendota Canal, and San Luis Reservoir. The 3-MGD LESSALT Surface Water Treatment Plant is a joint venture between the City of Hollister and the Sunnyslope County Water District and began operating January 2003. The LESSALT Plant treats surface water from the Central Valley Project-San Felipe Division for distribution to the Sunnyslope County Water District and the City of Hollister. The San Benito County Water District is the contract agency for San Felipe water. All improvements will comply with the Safe Drinking Water Act.

### *Water Supply*

Water supply in the Hollister Planning Area for agricultural, municipal and industrial uses comes from several sources: local groundwater, local surface water, and surface water purchased from the U.S. Bureau of Reclamation Central Valley Project (CVP) and imported to the County via the San Felipe project. The San Benito County Water District (SBCWD) is responsible for the management of the groundwater basins in much of San Benito County. SBCWD has adopted a Groundwater Management Plan (GWMP) that includes goals and objectives for short-term and long-term management of water resources in Northern San

Benito County within the Gilroy-Hollister Groundwater Basin. The GWMP addresses surface and groundwater management as well as wastewater treatment discharges and use of recycled water supplies. The purpose is to provide reliable, sustainable, good quality water for existing and future agricultural, municipal and industrial (M&I) uses in accordance with the goals and objectives of the San Benito County Water District.

Under the Groundwater Management Plan Update for the San Benito County Portion of the Gilroy-Hollister Groundwater Basin, modifications to current water supply systems could include construction of new groundwater or surface water treatment facilities for filtering, demineralization (reducing hardness) and/or disinfection. Both groundwater and surface water (from imported or local sources) could be used by the City of Hollister and Sunnyslope County Water District, as well as other water supply providers in San Benito County. Water users with private wells would continue to use groundwater resources. Entitlements to groundwater and imported surface water will be further addressed in the Urban Water Master Plan Update.

The GWMP is the result of a collaborative planning process by the Water Resources Association of San Benito County (WRA). The WRA is an association of the City of Hollister, City of San Juan Bautista, Sunnyslope County Water District, and San Benito County Water District. The member communities and districts of the WRA are responsible for the implementation of programs and elements described in the GWMP in the Northern San Benito County area. Implementation of the GWMP consists of voluntary, coordinated actions by the participating communities and districts of the WRA.

The GWMP addresses the following issues related to water quantity and water quality in the Basin:

#### *Water Quantity*

- Existing imbalance of areas with high and low groundwater.
- Pending imbalance of supply and demand due to planned growth.
- Existing and pending inability to adequately dispose of wastewater.
- Frequent reduction of long-term imported water supplies and lower quality local supplies.

#### *Water Quality*

- Increasing total dissolved solids (TDS) - salts are accumulating in the Basin and constrain beneficial uses.
- Hardness affects urban supplies and leads to water softeners that further add salts to the Basin.
- Nitrates have accumulated in some groundwater sub-basins, affecting beneficial uses. Effective water quality protection is lacking.

Groundwater is used in conjunction with surface water to meet water demands within the Basin. "Conjunctive use" of groundwater and surface water can result in a combined yield that is greater than the sum of the separate yields of the surface water and groundwater components. This is achieved by using stored groundwater to supply most of the demand during droughts, when surface water deliveries are curtailed. During wet periods, surface water is used to meet most of the demand, and groundwater storage is allowed to recover.

The groundwater storage capacity of the San Benito County portion of the Gilroy-Hollister Groundwater Basin is approximately 500,000 acre-feet within 200 feet of the ground surface. Based upon long-term precipitation data and water balance calculations from 1997 to 2002, the average annual safe groundwater yield is estimated to be approximately 54,000 acre-feet (San Benito County Water District — Groundwater Management Plan).

Local surface water contributes to water supply in the form of water that percolates in stream channels and through soils to groundwater. In addition to natural streamflows, surface water stored in Hernandez and Paicines Reservoirs is released to the San Benito River and Tres Pinos Creek where it percolates to the groundwater.

In addition to potable water supplies, the Groundwater Management Plan Update for the San Benito County Portion of the Gilroy-Hollister Groundwater Basin addresses the future use of recycled water for agricultural and landscape irrigation. Recycled water systems would require the installation of new separate pipeline systems and pumping equipment within existing wastewater treatment facilities of the City of Hollister and possibly Sunnyslope County Water District facilities. Use of recycled water would reduce the demand for potable water from surface or groundwater sources and allow for in-lieu storage of groundwater in the basin.

Imported surface water from the Central Valley Project is used as a source of both agriculture and municipal and industrial water supplies. Water is imported to the area from San Luis Reservoir through the Hollister Conduit, which is part of the San Felipe Unit of the Central Valley Project (San Felipe). CALSIM II is a model of California's State Water Project (SWP) and the Federal Central Valley Project (CVP), developed jointly by the California Department of Water Resources (DWR) and U.S. Bureau of Reclamation (USBR). While these agencies developed the model for project-related purposes, the model also has been proposed and employed for various other purposes as well. There are issues of availability and reliability of San Felipe Water as a source of water and there have been significant reductions in San Felipe Water, as noted in the CAL SIM II for long-term planning, SBCWD, October 2003, and as detailed in the "Groundwater Management Plan Update for the San Benito County Portion of the Gilroy-Hollister Groundwater Basin, Water Resources Association of San Benito County, April 2004.

#### *Water Suppliers*

The planning area has two independent water suppliers: Sunnyslope County Water District (portions of Hollister East and Tres Pinos Sub-basins), and the City of Hollister (portions of the Hollister East, Hollister West, and small areas of Pacheco, San Juan and the Tres Pinos Sub-basins). Properties outside the service area boundaries for Sunnyslope and the City of Hollister generally use private groundwater wells or are part of smaller water systems.

The Hollister Area Urban Water Management Plan 2000 was prepared jointly by the Sunnyslope County Water District, the City of Hollister and San Benito County Water District. The 2000 Plan is an update of an earlier 1991 report. The Urban Water Management Plan includes goals for strengthening the connection between regional land use planning and availability of water supplies; continuing collaboration between water agencies; providing a resource tool to make sound and consistent decisions regarding regional growth

and water management; meeting state and federal regulatory requirements; and defining water conservation plans.

The City of Hollister, San Benito County, and the San Benito County Water District have signed a Memorandum of Understanding (MOU) that establishes a process and standards for the parties to undertake the cooperative and mutually beneficial development of a comprehensive Master Plan for water supply and wastewater treatment and disposal for the Hollister Urban Area. This would be an update of the Hollister Area Urban Water Management Plan 2000.

The new Hollister Urban Water and Wastewater Master Plan will be consistent with the San Benito County Water District GWMP and would provide a framework for regional water management in accordance with land use planning and policies (including the growth management ordinance) of the City. Growth rates used for water and wastewater planning purposes would be required to be consistent between Hollister Urban Water and Wastewater Master Plan, Hollister General Plan, San Benito County General Plan and AMBAG forecasts.

**Sunnyslope County Water District.** The Sunnyslope County Water District (SCWD) is an independent public agency that provides water to a portion of the City of Hollister and the unincorporated territory of the County of San Benito generally east and southeast of Hollister.

The Sunnyslope County Water District during the year 2004 obtained 68% of its potable drinking water from the District's four active deep groundwater wells located throughout the district, 29% from San Felipe surface water treated at the LESSALT Water Treatment Plant and 3% through distribution system inter-ties with the City of Hollister. The Sunnyslope County Water District had no violations of water quality standards in 2004.

There are three points in the SCWD system that are connected to the City of Hollister water system. They are: (1) the intersection of Hillcrest Road and Memorial Drive; (2) the intersection of Sunnyslope Road and Memorial Drive; and (3) the intersection of Sunset Drive and Memorial Drive. This allows for the transfer of water through meters between the two systems during times of emergency, giving each system an increased safety factor.

SCWD policy requires that the district be able to meet the maximum daily demand with one well out of operation, and by establishing and maintaining a minimum and maximum static pressure in the system. The policy of the SCWD is to insure that development within the Hollister planning area does not exceed the capacity of the Hollister Fire Department and the San Benito County Fire Department to provide an adequate level of fire protection. This helps to insure that development does not exceed the capacity of the local water supply systems.

**City of Hollister.** During the year 2004, the City of Hollister obtained 69% of its potable drinking water from its seven active deep groundwater wells located throughout the City and Cienega Valley, 24% from San Felipe surface water, treated at the LESSALT Water Treatment Plant, and 7% through distribution system inter-ties with the Sunnyslope County Water District. The City of Hollister routinely monitors for contaminants in

drinking water according to Federal and State laws. The City had no violations of water quality standards in 2004.

Similar to Sunnyslope, City policy requires that the City be able to meet the maximum daily demand with one well out of operation, and by establishing and maintaining a minimum and maximum static pressure in the system. The policy of the City, similar to the Sunnyslope County Water District is to insure that development within the Hollister planning area does not exceed the capacity of the Hollister Fire Department and the San Benito County Fire Department to provide an adequate level of fire protection. Together with Sunnyslope, this helps to insure that development does not exceed the capacity of the local water supply system. The basic policy of the City of Hollister Public Works Department and the City of Hollister Engineering Department for the Water Distribution System is to place enough 12-inch water mains in the system to maintain fire flow requirements throughout the system.

### **Hydrology, Drainage and Flood Hazards, Wastewater Treatment, Water Quality, and Water Supply – Significance Criteria**

The hydrology, drainage and flood hazards, wastewater treatment, water quality, and water supply analysis uses criteria from the State CEQA Guidelines. According to CEQA Guidelines, a project would be deemed to have a significant effect on the environment if it would:

#### *Wastewater*

- Would not meet wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Result in the determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- 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.

#### *Water Supply*

- Have insufficient water supplies available to serve the project from existing entitlements and resources, or would need new or expanded entitlements.
- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

#### *Water Quality*

- Violate any water quality standards or waste discharge requirements.
- Otherwise substantially degrade water quality.

### *Groundwater*

- 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).
- (Liquefaction potential is discussed in EIR Section 4.9 – Geology and Seismicity)

### *Drainage*

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- 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.
- 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.

### *Flooding*

- 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.
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- 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

### *Erosion and Siltation*

- Appendix 0 of the CEQA Guidelines states that a given project would have significant impacts if it resulted in "substantial flooding, siltation or erosion," (q) or if it "Creates a potential public health hazard or involves the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected" (v).
- Increases storm runoff and sedimentation potential triggering additional erosion sufficient to degrade fisheries or accelerate existing erosion processes in the San Benito River or Santa Ana Creek.

## **Hydrology, Drainage and Flood Hazards, Wastewater Treatment, Water Quality, and Water Supply – Impacts and Mitigation Measures**

### **Impact 4.10-1 Wastewater Treatment Capacity**

The planned treatment capacity of the City of Hollister Wastewater Treatment Plant will be consistent with the development projections under the Draft General Plan. Implementation of Draft General Plan policies and programs related to water and wastewater, with the additional mitigation measure 10.1-1 proposed in this EIR requiring master planning for wastewater and water supplies in coordination with the San Benito County Water District and San Benito, would result in a less-than-significant impact.

The current average dry weather flow at the City of Hollister's Domestic Wastewater Treatment Plant (DWTP) is approximately 2.75 million gallons per day (MGD) (HydroScience, 2002). Projected wastewater flows are based on projected population growth from the beginning of the year 2006. The current flow of 2.75 MGD is assumed for the year 2006 because flows are not expected to increase significantly in the interim. Growth projections and associated increases in wastewater flow are based upon the Draft City of Hollister General Plan dated April 2005 (City of Hollister), which is consistent with Association of Monterey Bay Area Governments (AMBAG) forecasts.

The City is proposing to construct plant improvements to plant increase capacity to 5 MGD. The design flow is based on the projected flow of 4.76 MGD in 2023 based upon the projections contained in the 2005 General Plan. The City of Hollister, San Benito County, and the San Benito County Water District have signed a Memorandum of Understanding (MOU) that establishes a process and standards for the parties to undertake the cooperative and mutually beneficial development of a comprehensive Master Plan for water supply and wastewater treatment and disposal for the Hollister Urban Area.

The Regional Water Quality Control Board requires the operators of treatment facilities to plan implementation of expanded facilities when they reach 75% of the treatment capacity. At that time, determination of future capacity needs would be evaluated and an appropriate expansion could begin, to be consistent with and based upon projections contained in future updates to the Hollister General Plan.

Table 4.10.A shows wastewater flow projections to the year 2023 under the Draft General Plan. Flow projections compared to population growth rate and the number of new hookups will be evaluated as part of the Urban Water and Wastewater Master Plan. The additional mitigation measure included in this EIR (4.10-1-1 Coordinate with the San Benito County Water District, San Benito County and the Sunnyslope County Water District in water and wastewater system expansion needs) requires the following: “Upon completion of the Hollister Urban Water and Wastewater Master Plan the City will reassess the population, employment and other growth projections of the General Plan to be consistent with the adopted Urban Water and Wastewater Master Plan and in compliance with State law requirements for future water supplies.”

**Table 4.10.A: Wastewater Flow Projections for the City of Hollister**

Year	Flow Projection (MGD)*	With Sunnyslope WD**
2006	2.75	2.98
2007	2.80	3.03
2008	2.87	3.11
2009	2.95	3.19
2010	3.03	3.27
2011	3.11	3.36
2012	3.19	3.45
2013	3.28	3.53
2014	3.36	3.63
2015	3.45	3.72
2016	3.54	3.82
2017	3.64	3.92
2018	3.73	4.02
2019	3.83	4.12
2020	3.93	4.23
2021	4.04	4.34
2022	4.15	4.45
2023	4.26	4.57

Source: City of Hollister, Public Works Department (July, 2005)

\* The beginning of year 2006 is based on current measured flow. Growth projections are based on the Draft General Plan (April, 2005); 2.6% population growth (population and school flow), and a 2.9% growth of the economy translated into a 2.9% increase in commercial and industrial flows.

\*\* Sunnyslope Water District information is current average flow and includes a 2% growth for that service area.

The plant improvement project has three main components: (1) upgrade and expansion of the existing DWTP, (2) construction of additional disposal facilities, and (3) development of a recycled water program with development of additional treatment capacity to reduce TDS in the potable water system.

The upgrades to the DTWP would consist of constructing new treatment systems that will provide a higher level of treatment to the domestic influent received by the plant. Disposal will be accomplished by a combination of the following methods:

- Continued use of the City's existing percolation beds at current or increased capacity.
- Construction and operation of a new disposal area . A new effluent pipeline system would be built to supply the disposal system.
- Development of a recycled water distribution system that will provide high quality recycled water to agricultural fields, golf courses, parks, and other irrigation sites throughout the Hollister area.

To provide the maximum flexibility in effluent disposal, the wastewater treatment plant will be designed to provide high quality effluent suitable for reuse. Specifically, the treated effluent is designed to meet the most stringent California Department of Health Services (DHS) requirements for recycled water.

#### **Mitigation Measures for Impact 4.10-1 Proposed in the Draft General Plan**

A goal of the Draft General Plan is to coordinate with other agencies and plan for the provision of adequate infrastructure, services and facilities. An overriding policy of the Plan is to ensure that future growth does not exceed the capabilities and capacity of local public services, such as wastewater collection and treatment, and local water supply systems. The General Plan proposes that performance standards be set and that coordinated facilities and services planning, and capital improvements, occur concurrently to keep pace with development.

In particular, the Plan calls for coordination with responsible districts and agencies to assure that sewer and water facility expansion and/or improvements meet Federal and State standards and occur in a timely manner. The Draft General Plan also includes a number of policies and programs supporting water conservation measures.

The Hollister General Plan goals are to maintain and enhance Hollister's small-town character, maintain specified transportation level of service on existing streets, and ensuring adequate public services for existing and new development. Policies limit future development to that which can be supported by water supply, not result in the loss of wildlife habitat which may be essential for the survival of special status species, protect wildlife habitat, groundwater percolation, water quality and wetlands, would not expose people to increased risk of exposure to hazardous materials, not disturb areas determined to have archaeological or historical significance, or significantly disturb scenic character or views.

Other goals of the Draft Hollister General Plan call for conservation of natural resources, protecting the environment within the Hollister Planning Area, protecting agricultural land from inappropriate development, protecting residents from unacceptable exposure to natural hazards and noise, and coordination with growth management planning and implementation in San Benito County. These goals are in accordance with the water quantity and environmental resources objectives in the GWMP. The City of Hollister growth projections used in the GWMP to estimate future urban water supply needs are consistent with local Growth Management Programs and water supplies would be adequate to accommodate growth while maintaining productive farmland.

The Draft Hollister General Plan also contains a policy of providing an adequate level of public services and facilities to ensure the continued health, education, welfare and safety of local residents. Ensuring that development does not exceed the capacity of local water supply and wastewater treatment systems is of primary concern. City policies would provide a framework for implementation of water management measures to protect water supply and water quality in the northern San Benito County area, which is also consistent with the GWMP.

Some of the specific policies and implementation measures contained in the Draft General Plan include:

CSF1.1	Adequate Capabilities and Capacity of Local Public Services
CSF1.2	New Development Requirements for Public Services
CSF1.3	Performance Standards
CSF1.4	Coordinate Facilities and Services Planning
CSF1.5	Capital Improvements Maintenance and Replacement
CSF1.6	Other Infrastructure Planning
CSF1.7	Development Review Criteria for Public Services
CSF2.1	Sewer and Water Facilities
CSF2.2	Provision of Sanitary Sewerage Capacity for Commercial and Industrial Uses
CSF2.3	Development Outside of the Airport or Santa Ana Sewer Systems
LU.N	Evaluate capital improvements program
LU.O	Encourage intergovernmental coordination
LU.P	Encourage specific plans
LU.S	Implement phasing strategy
CSF.D	Adopt a performance standards ordinance
CSF.F	Coordinate with the San Benito County Water District in water system expansion needs ( <i>see modifications to this implementing program proposed as additional mitigation measure 4.10-1-1 in this EIR</i> )
CSF.I	Establish requirements for water conservation in new development
CSF.M	Provide information on water conserving landscaping
CSF.Q	Identify opportunities for water recycling
CSF.Z	Implement plans for a regional wastewater treatment facility
CSF.CC	Maintain an up-to-date CIP
CSF.DD	Maintain data on sewer and water system capacity
CSF.EE	Monitor Wastewater Treatment Plant

### Additional Mitigation Measures Proposed in the EIR

#### *Modify General Plan Implementing Program CSF.F*

**4.10-1-1 Coordinate with the San Benito County Water District, San Benito County and the Sunnyslope County Water District in water and wastewater system expansion needs.** As a follow-up to the Memorandum of Understanding (MOU) between the City of Hollister, San Benito County, and San Benito County Water District, the City will work with the San Benito County Water District and San Benito County to develop and implement plans for meeting the water needs of the City of Hollister consistent with the General Plan. Issues to be addressed include:

- (1) Implementation of the Groundwater Management Plan, including:
  - a. Purchasing of additional water supplies.
  - b. Percolation of the San Felipe Project water into the underlying aquifers.
  - c. Obtaining access to water from the San Felipe Project.
  - d. Monitoring groundwater levels and the quantities of water recharged to and extracted from the underlying sub-basins.
  - e. Sharing water resources data between the agencies to allow for responsible decisions regarding water supply development and land use planning.

- f. Developing policies regarding the provision of service to community water systems and small local water systems.
- (2) Develop and implement the Hollister Urban Water and Wastewater Master Plan, including:
- a. Purchasing of additional water supplies.
  - b. Percolation of the San Felipe Project water into the underlying aquifers.
  - c. Obtaining access to water from the San Felipe Project.
  - d. Monitoring groundwater levels and the quantities of water recharged to and extracted from the underlying sub-basins.
  - e. Sharing water resources data between the agencies to allow for responsible decisions regarding water supply development and land use planning.
  - f. Developing policies regarding the provision of service to community water systems and small local water systems.

Upon completion of the Hollister Urban Water and Wastewater Master Plan the City will reassess the population, employment and other growth projections of the General Plan to be consistent with the adopted Urban Water and Wastewater Master Plan and in compliance with State law requirements for future water supplies.

#### **Significance After Mitigation**

Draft General Plan policies and programs would likely reduce many of the environmental impacts associated with the construction or expansion of wastewater treatment facilities to a less-than-significant level, analysis of potential impacts without complete designs would be speculative. Environmental review for the sewage treatment plant will address these issues. With implementation of Draft General Plan policies and programs, and the refinement of Program CSF.F as recommended in this EIR related to water and wastewater master planning, this would result in a less-than-significant impact.

#### **Responsibility and Monitoring**

The City Council would be responsible for adopting the policies and programs that would reduce construction-related impacts, such as those listed in mitigation measures, as part of the updated General Plan, and implement construction of the wastewater treatment facility. The City Council would also be responsible for adopting plans that will coordinate with other agencies. The Public Works Department (Engineering) would be responsible for implementing and monitoring these policies and programs.

**Impact 4.10-2 Water Supply**

Development under the Draft General Plan would increase the demand for water in the Planning Area. Growth projections for Hollister are consistent with adopted AMBAG forecasts except for a minor technical adjustment (see mitigation measure 4.1-1). Implementation of Draft General Plan policies and programs related to water supply, with the additional mitigation measure proposed in this EIR requiring master planning for wastewater and water supplies in coordination with the San Benito County Water District and San Benito (see mitigation measure 10.2-1-1), would reduce this potentially significant impact to a less-than-significant level.

Estimates of future water demand in Northern San Benito County through the year 2022 are contained in the GWMP. Agricultural demand in the future assumes an increase of up to 17,000 irrigated acres, from 36,000 irrigated acres in 2002 to 53,000 acres in 2022. Future water demand for M&I uses has been estimated based upon population and housing estimates, taking into consideration current Growth Management Ordinances in the County. Projections contained in the GWMP are:

- Municipal and industrial (M&I) water demands in the year 2022 are estimated to be 11,465 AF/year.
- Agricultural and other water demands in the year 2022 are estimated to be 77,880 AF/year.

The projected future water demand assumes that water conservation will reduce rates of water usage over time. The agricultural water demand listed above assumes an 85% irrigation efficiency. Future water demand for municipal and industrial uses assumes a decrease in water demand of one percent per year per household for the next 20 years through conservation. Overall demand for existing residences is expected to decrease from 420 gallons per day in 2002 to 344 gallons per day in 2022. Water demand associated with new residential development is assumed to be 312 gallons per day per residence (San Benito County Water District — Groundwater Management Plan). Water demand compared to population growth rate and the number of new hookups will be evaluated as part of the Urban Water and Wastewater Master Plan. Recommended General Plan Program CSF.F (“Coordinate with the San Benito County Water District, San Benito County and the Sunnyslope County Water District in water and wastewater system expansion needs”) calls for the City to “reassess the population, employment and other growth projections of the General Plan to be consistent with the adopted Urban Water Master Plan and in compliance with State law requirements for future water supplies.”

The Groundwater Management Plan water supply projections are consistent with the Draft 2005 General Plan and with Association of Monterey Bay Area Governments (AMBAG) forecasts. The provision of water supplies to accommodate growth in accordance with the population projections in the GWMP would be consistent with the City's goal of maintaining Hollister's small-town character.

**Mitigation Measures for Impact 4.10-2 Proposed in the Draft General Plan**

As with the provision of adequate wastewater treatment, water supply issues are addressed in the goals of the Draft General Plan to coordinate with other agencies and plan for the

provision of adequate infrastructure, services and facilities. Specific policies and implementation measures include:

- CSF1.1 Adequate Capabilities and Capacity of Local Public Services
- CSF1.2 New Development Requirements for Public Services
- CSF1.3 Performance Standards
- CSF1.4 Coordinate Facilities and Services Planning
- CSF1.5 Capital Improvements Maintenance and Replacement
- CSF1.6 Other Infrastructure Planning
- CSF1.7 Development Review Criteria for Public Services
- CSF2.1 Sewer and Water Facilities
- LU.N Evaluate capital improvements program
- LU.O Encourage intergovernmental coordination
- LU.P Encourage specific plans
- LU.S Implement phasing strategy
- CSF.D Adopt a performance standards ordinance
- CSF.F Coordinate with the San Benito County Water District in water system expansion needs (*see modifications to this implementing program proposed as additional mitigation measure 4.10-1-1 in this EIR*)
- CSF.G Coordinate with the Sunnyslope County Water District in water system expansion needs
- CSF.I Establish requirements for water conservation in new development
- CSF.M Provide information on water conserving landscaping
- CSF.Q Identify opportunities for water recycling
- CSF.R Update the City's Water System Master Plan
- CSF.V Coordinate with the water resources association of San Benito County
- CSF.CC Maintain an up-to-date CIP
- CSF.DD Maintain data on sewer and water system capacity

#### **Additional Mitigation Measures Proposed in the EIR**

*(Additional Mitigation Measure 4.10-1-1 proposed in the EIR also applies to this impact)*

#### **Significance After Mitigation**

Implementation of the additional mitigation measure proposed in this EIR and other Draft General Plan policies and programs would reduce potential significant impacts to a less-than-significant level.

#### **Responsibility and Monitoring**

The City of Hollister, Sunnyslope and San Benito County Water Districts would be responsible for constructing additional water supply facilities, consistent with the Urban Water and Wastewater Master Plan and the City of Hollister General Plan. The City Council would be responsible for adopting the policies and programs that would reduce construction-related impacts, such as those listed in mitigation measures, as part of the updated General Plan. The Development Services Department and Public Works Department would be responsible for implementing and monitoring those policies and programs. With implementation of Draft General Plan policies and programs related to water and wastewater master planning this would be a less-than-significant impact.

**Impact 4.10-3 Water Quality Standards**

Development under the Draft General Plan would result in an increase in the loading of petrochemical contaminants, heavy metals and pesticide, and herbicide residues to natural and artificial drainage-ways and could contribute to groundwater quality degradation and/or contamination within the Planning Area. Implementation of Draft General Plan policies and programs related to water quality, with the additional mitigation measure proposed in this EIR requiring master planning for wastewater and water supplies in coordination with the San Benito County Water District and San Benito (see mitigation measure 10.2-1-1), would reduce this potentially significant impact to a less-than-significant level.

More intensified land use in the City will result in increases in urban-type pollutants (e.g., metals, petroleum hydrocarbons) in storm water runoff. Negative impacts from fertilizer, herbicides and pesticides could also occur. Potential impacts could occur through degradation of San Benito River and groundwater. However, mitigation measures required for development in the City are expected to significantly reduce the introduction of urban pollutants to the environment. Industrial and commercial land uses yield the highest quantities of stormwater contaminants.

There are numerous underground storage tanks containing petroleum products, including aviation gas and jet fuel tanks near the Municipal Airport, and several service stations in throughout the City. Hollister has no federal "Superfund" sites, although it does have one hazardous waste site that was recently cleaned up under state mandate and there is a remediation plan that is currently being implemented to clean up the old Chevron tanks near City Hall.

One of the more serious environmental threats created by the hazardous chemicals is contamination of the groundwater basin. As noted in the previous General Plan EIR, there has, and continues to be, widespread low-level contamination throughout the basin, attributable largely to organophosphate and carbamate-based pesticides and from glyphosate-based weedkillers such as "Round-up." These potential impacts are documented in the Groundwater Management Plan Update for the San Benito County Portion of the Gilroy-Hollister Groundwater Basin (Spring, 2004).

There is also a potential for chemical releases at most construction sites. Once released, substances such as fuels, oils, paints, and solvents could be transported to nearby drainages and the Bay and/or groundwater in storm water runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters.

The major federal legislation governing water quality is the Clean Water Act, as amended by the Water Quality Act of 1987. The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for water quality management nationwide.

The State of California's Porter-Cologne Water Quality Control Act provides the basis for water quality regulation within California; the Act assigns primary responsibility for the protection and enhancement of water quality to the State Water Resources Control Board (SWRCB), and the nine regional water quality control boards. The SWRCB provides state-

level coordination of the water quality control program by establishing state-wide policies and plans for the implementation of state and federal laws and regulations. Each Regional Water Quality Control Board (RWQCB) adopts and implements a water quality control plan ("Basin Plan") that recognizes the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to control water quality and protect beneficial uses. Hollister falls under the jurisdiction of the Central Coast Regional Board (Region 3).

Policies in the Draft General Plan and those of other agencies recommend the use of recycled water.. Potential uses of recycled water include crop and landscape irrigation, groundwater recharge, industrial use and supply to impoundments. Different uses require different levels of treatment. In general, recycled water operations in California are governed by California Department of Health Services (DHS) regulations and guidelines.

#### **Mitigation Measures for Impact 4.10-3 Proposed in the Draft General Plan**

- CSF1.1 Adequate Capabilities and Capacity of Local Public Services
- CSF1.2 New Development Requirements for Public Services
- CSF1.3 Performance Standards
- CSF1.4 Coordinate Facilities and Services Planning
- CSF1.5 Capital Improvements Maintenance and Replacement
- CSF1.6 Other Infrastructure Planning
- CSF1.7 Development Review Criteria for Public Services
- CSF3.3 Local, State and Federal Standards for Water Quality
- CSF3.4 Water Quality Tests and Mitigation
- CSF3.5 Infiltration Areas
- CSF3.6 Education and Outreach on Water Quality Programs
- CSF3.7 Pollution from Urban Runoff
- LU.N Evaluate capital improvements program
- LU.O Encourage intergovernmental coordination
- LU.P Encourage specific plans
- LU.S Implement phasing strategy
- CSF.D Adopt a performance standards ordinance
- CSF.F Coordinate with the San Benito County Water District in water system expansion needs *(see modifications to this implementing program proposed as additional mitigation measure 4.10-1-1 in this EIR)*
- CSF.G Coordinate with the Sunnyslope County Water District in water system expansion needs
- CSF.O Adopt Storm Water Management Plan
- CSF.CC Maintain an up-to-date CIP

#### **Additional Mitigation Measures Proposed in the EIR**

*(Additional Mitigation Measure 4.10-1-1 proposed in the EIR also applies to this impact)*

#### **Significance After Mitigation**

It is expected that the mitigation measures addressed in project-specific analysis, active City participation in countywide programs, and implementation of Draft General Plan policies

and programs plus the additional mitigation measure 4.10-1 contained in this EIR would reduce impacts to a less-than-significant level.

#### **Responsibility and Monitoring**

The City Council would be responsible for adopting the policies and programs that would reduce construction-related impacts, such as those listed in mitigation measures, as part of the updated General Plan. The Development Services Department and Public Works Department would be responsible for implementing and monitoring those policies and programs.

#### **Impact 4.10-4 Groundwater**

Development consistent with the Draft General Plan could result in overall incremental increases in impervious surface cover in some Planning Area watersheds. These increases would be minimal and would not affect groundwater resources. Use of groundwater for future water supply will have a significant effect on groundwater resources. Implementation of Draft General Plan policies and programs related to groundwater and future water supply and treatment, with the additional mitigation measure proposed in this EIR requiring master planning for wastewater and water supplies in coordination with the San Benito County Water District and San Benito (see mitigation measure 10.2-1-1), would reduce this potentially significant impact to a less-than-significant level.

The San Benito County Water District monitors groundwater levels in the seven sub-basins on a quarterly basis. When groundwater levels approach or reach the ground surface, saturated soil conditions are created that can impair crop growth, weaken the foundations of structures, and cause nuisance seeps and boggy areas.

A common type of ground failure associated with moderate and large earthquakes is liquefaction in which water-saturated fine-grained sediments lose strength and transform into a liquefied state. High groundwater levels can increase the potential for damage to structures and roadways from liquefaction. Because residential development typically uses less water than the agriculture it replaces future water levels may rise, thereby increasing the likelihood of liquefaction. Parts of the Hollister Planning Area are highly susceptible to liquefaction. According to a 1998 U.S. Geological Survey (reference cited above) the areas with highest liquefaction susceptibility are located north of the airport and areas along the San Benito River. The urbanized portions of Hollister have moderate to low susceptibility for liquefaction. Identifying and mitigating liquefaction-prone areas is critical when new development projects are considered.

High groundwater levels can also impair the ability of the soil to percolate recycled wastewater in the vicinity of Hollister's Domestic Wastewater Treatment Plant and Industrial Wastewater Treatment Plant.

In an effort to keep groundwater at appropriate levels, SBCWD artificially recharges the groundwater basins in and around Hollister. The area of benefit for this program is designated as Zone 3. Excess runoff from winter rain is stored in two facilities: the

Hernandez Reservoir and the Paicines Reservoir. Hernandez Reservoir is located approximately 44 miles south of Hollister, and stores 18,700 acre-feet of water. Paicines Reservoir can store 3,200 acre-feet of water and is located approximately 11 miles south of Hollister. The Urban Water Master Plan Update will address consistent ground-water recharge for the ongoing needs of the basin.

#### **Mitigation Measures for Impact 4.10-4 Proposed in the Draft General Plan**

- CSF1.1 Adequate Capabilities and Capacity of Local Public Services
- CSF1.2 New Development Requirements for Public Services
- CSF1.3 Performance Standards
- CSF1.4 Coordinate Facilities and Services Planning
- CSF1.5 Capital Improvements Maintenance and Replacement
- CSF1.6 Other Infrastructure Planning
- CSF1.7 Development Review Criteria for Public Services
- CSF3.3 Local, State and Federal Standards for Water Quality
- CSF3.4 Water Quality Tests and Mitigation
- CSF3.5 Infiltration Areas
- CSF3.6 Education and Outreach on Water Quality Programs
- CSF3.7 Pollution from Urban Runoff
- LU.N Evaluate capital improvements program
- LU.O Encourage intergovernmental coordination
- LU.P Encourage specific plans
- LU.S Implement phasing strategy
- CSF.D Adopt a performance standards ordinance
- CSF.F Coordinate with the San Benito County Water District in water system expansion needs *(see modifications to this implementing program proposed as additional mitigation measure 4.10-1-1 in this EIR)*
- CSF.G Coordinate with the Sunnyslope County Water District in water system expansion needs
- CSF.CC Maintain an up-to-date CIP

#### **Additional Mitigation Measures Proposed in the EIR**

*(Additional Mitigation Measure 4.10-1-1 proposed in the EIR also applies to this impact)*

#### **Significance After Mitigation**

It is expected that the mitigation measures addressed in project-specific analysis, active City participation in countywide programs, and implementation of Draft General Plan policies and programs, plus the additional mitigation measure 4.10-1-1 contained in this EIR, would reduce potential significant impacts to a less-than-significant level.

#### **Responsibility and Monitoring**

The City of Hollister, Sunnyslope and San Benito County Water Districts would be responsible for coordinating and implementing policies for groundwater recharge. The City Council would be responsible for adopting the policies and programs that would reduce construction-related impacts, such as those listed in mitigation measures, as part of the updated General Plan. The Development Services Department and Public Works Department would be responsible for implementing and monitoring those policies and programs.

### **Impact 4.10-5 Erosion and Siltation**

Development consistent with the Draft General Plan would result in infill or redevelopment in already developed areas, and development in undeveloped areas, leading to incremental increases in project-induced erosion and sedimentation. The construction of commercial/industrial and residential projects could disrupt soil surfaces, alter local drainage patterns and potentially cause downstream siltation. Standard City practices and regulations, along with implementation of Draft General Plan policies and programs, would reduce potential impacts to a less-than-significant level.

Construction and grading would require temporary disturbance of surface soils and removal of vegetative cover. During the construction period, grading and excavation activities would result in exposure of soil to runoff, potentially causing erosion and entrainment of sediment in the runoff. Soil stockpiles, cuts, and fills would be exposed to runoff and, if not managed properly, the runoff could cause erosion and increased sedimentation in storm sewers or drainages at or outside the project area. The accumulation of sediment in culverts or drainages could result in blockage of flows, potentially resulting in increased localized ponding or flooding.

Erosion is largely a function of soil type and slope, or a combination of the two. The Hollister planning area is wholly composed of alluvial soils, a complex layering of gravel, silty sands, sand, and clayey soil deposited over thousands of years by the San Benito River in a valley that is the remnant of a prehistoric lake. As the majority of the planning area is fairly level, the erosion impacts caused by existing development have been relatively minor, associated with some sheet erosion around the farmlands and intermittent gully erosion around the San Benito River and Santa Ana Creek. The areas most subject to erosion are Park Hill and the vicinity of the San Benito River that has been or is being mined for sand and gravel.

The erosion potential throughout the valley floors of San Benito County is low. For this reason, the potential for erosion and siltation occurring during excavations would generally be low. However, during periods of heavy rainfall, runoff can occur. Standard practices, including implementation of a Storm Water Pollution Prevention Plan and conformance with conditions in grading permits will reduce the potential for erosion or sedimentation impacts.

Standard City practices and regulations, along with implementation of Draft General Plan policies and programs, would reduce these potential impacts to a less-than-significant level.

#### **Mitigation Measures for Impact 4.10-5 Proposed in the Draft General Plan**

- CSF1.1 Adequate Capabilities and Capacity of Local Public Services
- CSF1.2 New Development Requirements for Public Services
- CSF1.3 Performance Standards
- CSF1.4 Coordinate Facilities and Services Planning
- CSF1.5 Capital Improvements Maintenance and Replacement
- CSF1.6 Other Infrastructure Planning
- CSF1.7 Development Review Criteria for Public Services
- CSF3.1 Adequate Drainage Facilities

CSF3.2	Erosion and Sediment Control
LU.N	Evaluate capital improvements program
LU.P	Encourage specific plans
LU.S	Implement phasing strategy
CSF.D	Adopt a performance standards ordinance
CSF.O	Implement Adopted Storm Water Master Plan (Adopted in 2002)
CSF.P	Identify drainage system improvements
CSF.CC	Maintain an up-to-date CIP
CSF.HH	Inspect drainage channels and culverts
CSF.LL	Require storm water runoff measures

#### **Additional Mitigation Measures Proposed in the EIR**

None required.

#### **Significance After Mitigation**

Implementation of City regulations and Draft General Plan policies and programs would reduce impacts to a less-than-significant level.

#### **Responsibility and Monitoring**

The City Council would be responsible for adopting the policies and programs that would reduce construction-related impacts, such as those listed in Mitigation Measures, as part of the updated General Plan. The Development Services Department and Public Works Department would be responsible for implementing and monitoring those policies and programs.

#### **Impact 4.10-6 Flooding and/or Stormwater Drainage System Capacities and Exposure of People and Structures to Flooding**

Development under the Draft General Plan could potentially result in the location of residential or commercial structures in floodplains, subjecting people and the structures to flooding. Development consistent with the Draft General Plan would also be expected to increase peak flow rates by the increase of impervious surfaces. Implementation of Draft General Plan policies and programs related to flooding and hydrology would reduce potential impacts to a less-than-significant level.

The General Plan would result in increased urban development in the Hollister Planning Area over existing conditions. The City has implemented a number of drainage improvements and detention basins have been installed which have eliminated some of the localized flooding problems. Primary examples include storm drain improvements along Hillcrest Road, South Street, and Cienega Road. Nevertheless, many portions of the planning area are still exposed to periodic flooding. Probably the most critical area of concern is along Santa Ana Creek where it is adjacent the Hollister Business Park and an unincorporated residential neighborhood, i.e., between the Highway 156 crossing and about 3,500 feet south of the Fallon Road's crossing of the creek. A 100-year flood would inundate about half of the business park and could affect the adjoining residential area. Policies and programs are proposed in the Draft General Plan to address this issue.

Other sections of the planning area directly affected by flooding potential include the Southeast near the San Benito River and Enterprise Road. Historic localized flooding also still occurs along the intersection of Monterey and Powell Streets. This type of localized flooding is attributable not to these vicinities being flood-prone but to undersized drainage pipes. Downstream flooding impacts can also occur and these potential impacts would be addressed through the implementation of Draft General Plan policies and programs. Studies conducted by the Pajaro Watershed Authority have concluded that stormwater flows from the City Hollister does not currently contribute to peak flows downstream.

As a planning document, the mitigation contained in the policies and programs of the Draft General Plan is intended to assure that future development mitigates potential impacts from and on flooding. Flood control policies and programs will be implemented by development projects permitted by the Draft General Plan. Private storm drain improvements will be required for individual on-site collection systems, and they will be the responsibility of the individual parcel developers. For these reasons, this impact is less than significant.

#### **Mitigation Measures for Impact 4.10-6 Proposed in the Draft General Plan**

HS1.9	Flood Hazards
HS1.10	Floodplain Uses
HS.G	Update geologic, flooding and other hazard maps
HS.H	Apply flood control requirements in new development
CSF1.2	New Development Requirements for Public Services
CSF1.3	Performance Standards
CSF1.4	Coordinate Facilities and Services Planning
CSF1.5	Capital Improvements Maintenance and Replacement
CSF1.6	Other Infrastructure Planning
CSF1.7	Development Review Criteria for Public Services
CSF3.1	Adequate Drainage Facilities
CSF3.2	Erosion and Sediment Control
LU.N	Evaluate capital improvements program
LU.P	Encourage specific plans
LU.S	Implement phasing strategy
CSF.D	Adopt a performance standards ordinance
CSF.O	Implement Adopted Storm Water Master Plan (Adopted in 2002)
CSF.P	Identify drainage system improvements
CSF.CC	Maintain an up-to-date CIP
CSF.HH	Inspect drainage channels and culverts
CSF.LL	Require storm water runoff measures
LU.O	Encourage intergovernmental coordination

#### **Additional Mitigation Measures Proposed in the EIR**

None required.

#### **Significance After Mitigation**

Implementation of City regulations and Draft General Plan policies and programs would reduce impacts to a less-than-significant level.

**Responsibility and Monitoring**

The City Council would be responsible for adopting the policies and programs that would reduce construction-related impacts, such as those listed in mitigation measures, as part of the updated General Plan. The Development Services Department and Public Works Department would be responsible for implementing and monitoring those policies and programs.

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## 4.11

### Agriculture

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#### Agriculture – The Setting

The planning area comprises much of the San Benito Valley, a fertile agricultural valley with superior growing conditions attributable to its deep, alluvial soils and climate that is favorable to growing a wide variety of crops. The fertility of the planning area is attested to by the fact that about 50% of it is composed of "prime farmland" as designated by the State Department of Conservation. "Prime farmland" is shown on the next page.

Prime farmland is a specific term that refers to land that has the finest relative combination of physical and chemical characteristics for crop production. That is, it combines high soil quality (excellent cultivation capacity, depth, and mineral composition) with a long growing season and moisture supply sufficient to produce sustained high yields of crops when managed. According to the Department of Conservation, prime farmland must also have been used for the production of irrigated crops within the last three years.

The planning area is entirely composed of valley bottom and alluvial soils, which tend to be well drained and medium-textured. Among the most prevalent types are Antioch Loam (AnB), San Benito Clay Loam (SbD), Sopor Gravelly Loam (SIE2), Metz Sandy Loams (MCA, MgA), Sorrento Silt Loam (SnA), Rincon Loam (RnC), and Reiff Sandy Loam (ReA, ReC).

The remaining 20% of the planning area consists of clays, among the classifications being Clear Lake Clay (Ch, Ck), Pacheco Silty Clay (Pe) and Willows Clay (Wk). These soils are predominantly in the northern part of the planning area in the portions of it that lack Prime Soils. These soils are classified as having slight to moderate erosion potential and, given their depth and relative fertility, are well suited for a wide variety of agricultural uses.

According to a land use map prepared by the Department of Water Resources (DWR) almost half (49%) of the planning area is under cultivation. (Its total area is estimated to be 18,300 acres.) The area under cultivation is, in fact, probably closer to 45% now, since the DWR map was prepared in 1989, and urbanization has converted at least 700 acres since then.

The area's agricultural uses, according to the DWR map, are basically divided among three classifications: 1) fruit orchards; 2) field crops and pasture; and 3) vegetable and row crops. Based on the DWR map, fruit orchards comprise about 2,150 acres or 11 % of the total planning area. These orchards consist of walnut, apple, apricot and cherry trees and are concentrated on the southern and western sides of the planning area, particularly near the San Benito River. Gram and field crops comprise about 2,950 acres (16% of the planning area), while pasture lands make up another 250 acres (1%). These are largely grown on the northern and eastern perimeters of the planning area. Characteristic grain/field crops include wheat, alfalfa, barley and hay. Finally, vegetable and row crops make up the largest agricultural proportion (20%) of the planning area at 3,800 acres. These crops are generally grown adjacent to orchard crops immediately next to urbanized portions of the planning area.

Figure 18: Prime Farmland Areas



In 1965, the State of California passed the Land Conservation Act that enabled farmers to enjoy lower property taxes in exchange for maintaining their lands in agricultural uses. The purpose of the Act was to discourage the conversion of farm land to more intensive urban uses. By reducing the taxes that farmers paid on their land, the Act reduces the economic

burdens on farmers, thus improving the chances for their profitability which would, in turn, make the subdivision of farm land less financially attractive.

The vehicle for implementing the Williamson Act is a land conservation contract that is administered by the county government. Once entered into by a farmer, the contract is binding for a period of ten years during which taxes are reduced. The amount of reduction varies by formula and the proximity of a parcel to an urbanizing area. The contract is automatically renewed every year, unless the landowner files a Notice of Non-Renewal. If renewed, the contract term extends to the next ten-year period; i.e., if a Notice of Non-renewal is filed, the land cannot be converted to other uses until ten years later. During this ten-year waiting period, property taxes are gradually increased annually until they reflect full market value for the area. At the end of ten years, the property is free of land use restrictions and denied further property tax benefits. The City of Hollister's policy, however, is to automatically dissolve LCA contracts for lands that are annexed by the City, eliminating the need for non-renewal of the Williamson Act contracts. Hollister formally protests inclusion of LCA contracts with the City's Sphere of Influence.

### **Agriculture – Significance Criteria**

According to Appendix G of the CEQA Guidelines, a project will have a significant effect on the environment if it will "convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land." In addition, this analysis identifies other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use.

### **Agriculture – Impacts and Mitigation Measures**

#### **Impact 4.11-1 Farmland Conversion**

Development consistent with the Draft General Plan would result in the irrevocable conversion of Prime Farmland to urban development. While the Draft General Plan proposes a significantly reduced area of development of farmland as compared to 1995 General Plan, this would still be a significant unavoidable impact.

The General Plan would result in increased urban development in the Hollister Planning Area over existing conditions. However, the Draft General Plan proposes a reduced area of development as compared to 1995 General Plan. Residential development within the planning area is proposed to be concentrated on farmland that is less productive than prime farmland or Farmland of Statewide Importance. Development proposed for highly productive lands could be relocated through a Transfer of Development Credit (TDC) program that is proposed in the Draft General Plan. TDC's are a tool to encourage protection of valuable farmlands while enabling residential development, by shifting potential growth from designated agricultural "sending" areas to specific areas more appropriate for urbanization and which are termed "receiving" areas. It works by identifying the development density for sending and receiving areas, determining a value for the "development potential" of agricultural parcels that are sending sites threatened by growth

and selling them as "credits" to developers in the receiving sites, to allow them to have a density increase over what is otherwise allowed.

The plan also contains policies supporting grouped or clustered residential development on large parcels or subdivisions wherever important agricultural resources are present. That is, development of acreage that is considered Prime Farmland or prime soils (Grade 1) should be avoided and units should be clustered on non-prime lands. Build-out of the Draft General Plan, together with proposed residential development throughout the San Juan and San Benito Valleys, would have significant cumulative effects on agricultural activity within the county.

Agricultural operations may continue adjacent to or on portions of some sites within the planning area that are urbanized. The proximity of residential uses and productive farmland would potentially lead to nuisance complaints about agricultural practices related to spraying, odors, dust, and noise. In turn, the farmer(s) continuing to lease adjacent farmlands could complain about trespassing, vandalism, damage to crops, urban pets, and other infringements on farming operations. This is a significant impact.

#### **Mitigation Measures for Impact 4.11-1 Proposed in the Draft General Plan**

LU6.1	Infill Development
LU6.4	Specific Plans
LU6.5	Transfer of Development Credits
LU.S	Implement phasing strategy
OS1.1	Open Space Preservation
OS1.2	Cluster Development
OS1.3	Site Planning to Preserve Open Space
OS1.5	Open Space Use
OS1.7	Coordination with Other Jurisdictions
OS2.1	Premature Conversion of Prime Farmland
OS2.2	Coordination with San Benito County to Preserve Prime Farmlands
OS2.3	Williamson Act Contracts
OS2.4	Residential Development Near Agricultural Areas
OS.A	Create an agricultural community disclosure ordinance
OS.C	Investigate voluntary "Subscription Farming" or Community Supported Agriculture (CSA) programs
OS.D	Enact a farmland trust
OS.E	Coordinate with other jurisdictions in open space planning

#### **Additional Mitigation Measures Proposed in the EIR**

None.

#### **Significance After Mitigation**

Implementation of Draft General Plan policies and programs would reduce potential impacts but the Draft General Plan would still result in a significant unavoidable impact on prime farmland.

**Responsibility and Monitoring**

The City Council would be responsible for adopting the policies and programs in the updated General Plan. The Development Services Department would be responsible for implementing and monitoring those policies and programs.

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