3.14 Wet and Dry Utilities

INTRODUCTION

This section of the EIR addresses existing utility and infrastructure systems within the County of San Benito and the City of Hollister that will serve the proposed Santana Ranch project. The analysis discusses the ability of existing or planned systems to accommodate the proposed project in terms of distribution and supply and identifies potential environmental impacts that could result from the need for new or expanded systems. PMC's analysis is based primarily on information provided by the County of San Benito and local service providers, as well as information contained within the *San Benito County General Plan, City of Hollister General Plan*, the *Engineering Report for Development of Santana Ranch* prepared by RJA, and the Water Supply Assessment prepared by Tully and Young, attached as **Appendix J**.

This section also includes a discussion of projected energy usage of the project, with an emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy, pursuant to Appendix F of the CEQA Guidelines.

3.14.1 ENVIRONMENTAL SETTING

Water wells supply existing uses on the project site with potable water. Refuse service is provided by Integrated Waste Management, and wastewater is disposed of via septic systems. The City of Hollister Domestic Waste Water Treatment Plant treats wastewater generated within the City of Hollister, as well as other areas contiguous to the City that have a connection to the plant. Other utility services are currently being provided at or near the project site by a variety of companies, including PG&E (electricity and natural gas), AT&T (telephone/internet) and Charter Communications (television/internet).

WATER SUPPLY AND DISTRIBUTION

According to the Water Supply Assessment prepared for the project, the Hollister area is served by three water purveyors including the San Benito County Water District (County Water District), the Sunnyslope County Water District (Sunnyslope), and the City of Hollister. The County Water District is the supplier of wholesale water received from the San Felipe Unit of the U.S. Bureau of Reclamation's Central Valley Project (CVP) via pipeline from the San Luis Reservoir. The water retailers in the Hollister area include the City of Hollister and Sunnyslope.

Sunnyslope County Water District (Sunnyslope)

The City of Hollister and Sunnyslope both provide potable water service to residents inside and outside the City of Hollister limits. The Sunnyslope service area encompasses much of the eastern and southern portions of the Hollister urban area. Sunnyslope serves the Hollister residents in those areas, as well as those within the unincorporated community of Ridgemark Estates. The City of Hollister supplies the northern and western portions of the City with potable water. The northern portion of the project site is located within the Sunnyslope water service district boundaries, and the entire project site is located with Sunnyslope's sphere of influence. The project is proposed to be supplied with water by Sunnyslope.

Sunnyslope obtains water from surface and groundwater supplies. The surface water supply is obtained from the San Felipe Unit of the Central Valley Project, through a contract with the County Water District. The County Water District in turn is party to a contract with the United States Bureau of Reclamation which requires the Bureau to provide up to 35,500 AF/YR to meet agricultural demands and 8,250 AF/YR to meet municipal and industrial (M&I) demands within designated areas of the County Water District service area, which includes the Sunnyslope

service area. Sunnyslope must apply for water annually from the County Water District, and is required to treat water received before distribution to Sunnyslope customers. The LESSALT treatment plant was built for this purpose in 2002, as a joint venture between the City of Hollister and Sunnyslope. The existing capacity of the LESSALT plant is approximately 1,000 gallons per minute (gpm), which is equivalent to approximately 1,600 AF/YR. Sunnyslope and the City of Hollister equally divide the capacity from the LESSALT plant, and therefore each can receive up to 800 AF/YR under maximum production. However, while Sunnyslope could receive up to 800 AF/YR in any one year from the LESSALT plant, the average quantity of surface water that Sunnyslope received between years 2004–2008 was approximately 600 AF/YR. Furthermore, while it is anticipated that the LESSALT plant will be upgraded to meet new, stricter, California Department of Health Services requirements, and its capacity will be expanded as well at that time, there are currently no specific plans in place to undertake this expansion. Therefore, in order to be conservative, the Santana Ranch WSA assumes that Sunnyslope will continue to receive 600 AF/YR through 2035.

The groundwater supply is derived from the Hollister Area Subbasin and the San Juan Bautista Subbasin of the Gilroy-Hollister Valley Groundwater Basin. As shown in **Figures 3.14-1 and 2**, the Hollister Area Subbasin lies within the northeast portion of the Gilroy-Hollister Valley Groundwater Basin and is bounded on the north and east by the Diablo Range. The Calaveras Fault is the western boundary. The San Juan Bautista Subbasin lies within the southwestern portion of the Gilroy-Hollister Valley Groundwater Basin, is bounded on the north by Sargeant Fault and Sargeant Anticline and abuts the Bolsa Area Subbasin. The San Andreas Fault and the Gabilan Range form the southwestern boundary. The eastern boundary is the Calaveras Fault and the Hollister Area Subbasin. The Gilroy-Hollister Valley Groundwater Basin and its subbasins are further divided into distinct relevant subbasins known as the Hollister West, Hollister East and Tres Pinos subbasins. These subbasins have remained stable over the past 30 years, according to the Water Supply Assessment prepared for the project by Tully & Young (December, 2009).

Sunnyslope obtains groundwater from its own wells, as well as the City of Hollister's wells via a system intertie. Sunnyslope pumps groundwater from four wells at various locations throughout its service area. Sunnyslope's active wells are #2, #5, #7, and #8. Existing capacity of the four Sunnyslope wells is approximately 3,450 gallons/minute (gpm). Sunnyslope is currently in the process of testing two new wells – #11 and #12. The combined capacity of these two new wells will be approximately 2,800-3,400 gpm. Combined production capacity will be significant once wells #11 and #12 are completed. Assuming a maximum operating rate of 90%, all wells could generate nearly 10,000 AF/YR. Operationally, this capacity provides Sunnyslope the flexibility it needs to fill its storage tanks quickly and conveniently and distribute water as needed (Tully & Young, 2009).

T:_CS\Work\San Benito, County of\Santana Ranch

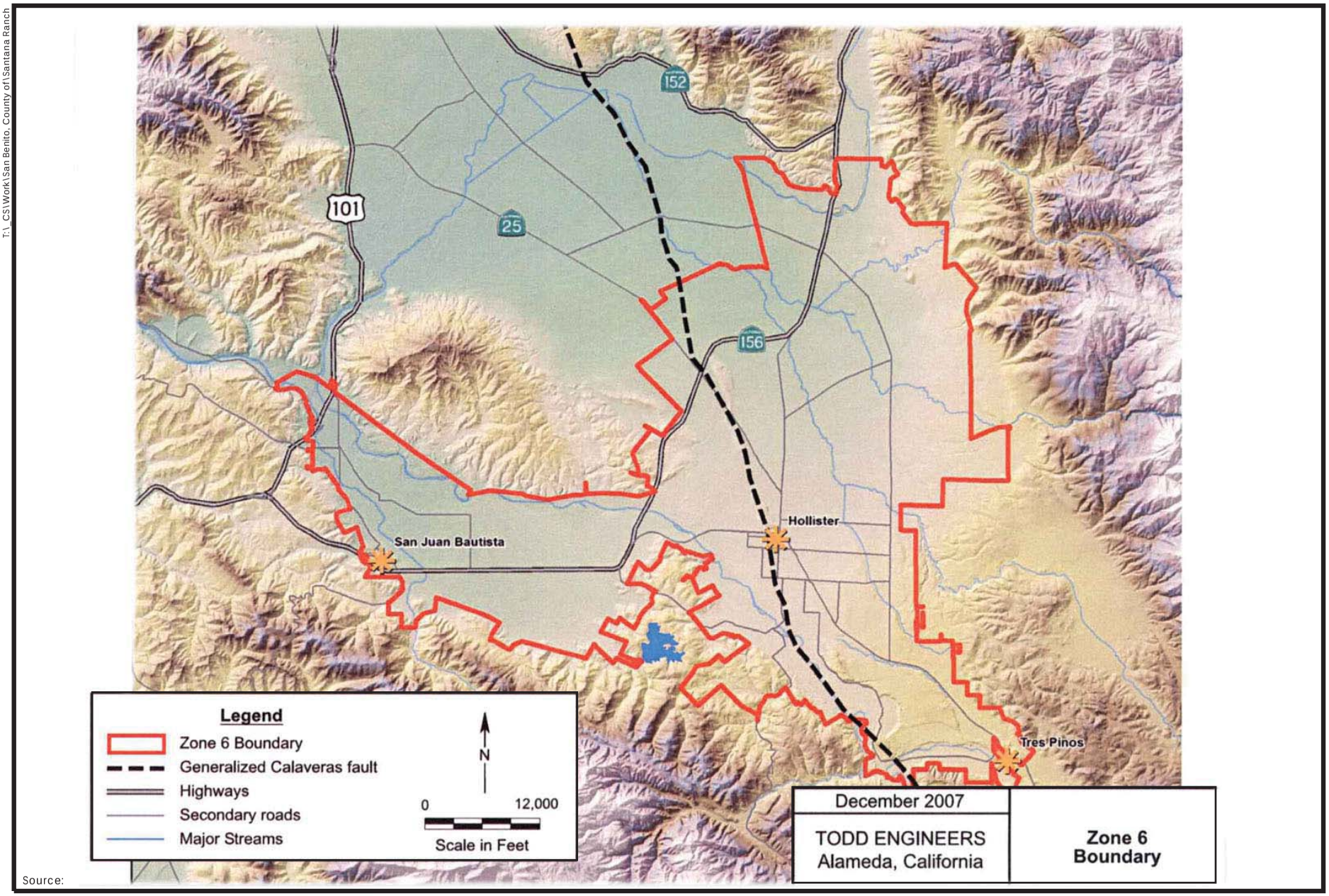

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Figure 3.14-1
Zone 6 Boundary

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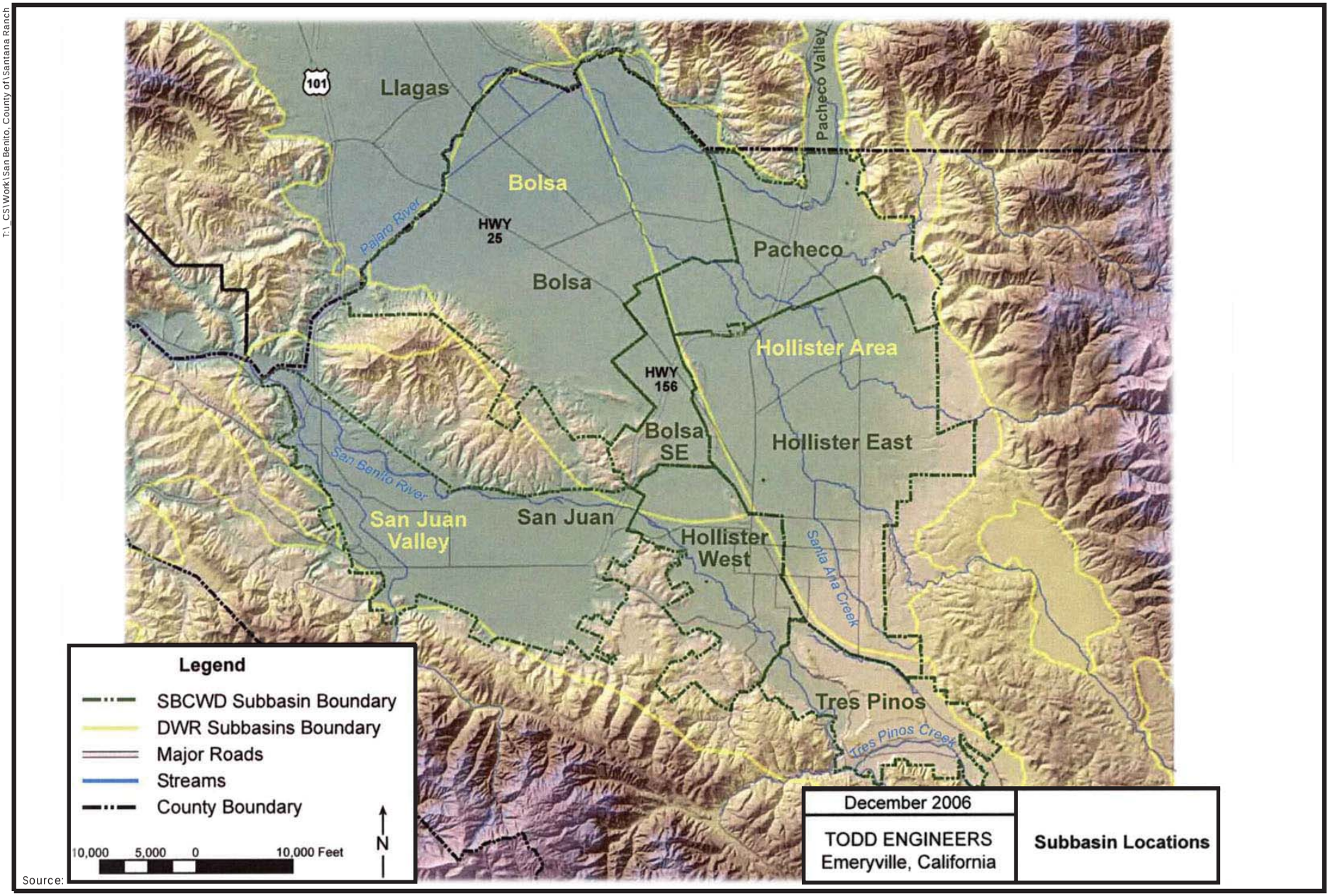

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Figure 3.14-2
Subbasin Locations

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WASTEWATER AND SEWER SERVICE

No public sanitary sewer system currently serves the project site. The nearest areas served by sanitary sewers are the residential subdivisions on the west side of Fairview Road, which are served by the City of Hollister, with wastewater treatment occurring at the Hollister Domestic Wastewater Treatment Plant. The two existing residences on the project site utilize individual septic tank and leachfield systems.

City of Hollister

The City of Hollister collects and transmits all domestic wastewater to the City's Domestic Wastewater Treatment Plant (DWTP) located west of the City at the intersection of San Juan Road and Highway 156. The DWTP was originally built in 1979 and became operational in 1980. At that time, the DWTP consisted of a primary and secondary pond system with percolation beds. In 2003, the City completed interim improvements at the DWTP to improve treatment and disposal quality and efficiency until the completion of the expansion currently underway. Interim improvements introduced significant changes to the treatment process by converting to a dual-powered multi-cellular–process to improve efficiency. In addition to the treatment process changes, a new influent lift station was constructed to control odors and improve flow measurement. Currently, the DWTP disposes of treated effluent in fifteen percolation beds located on the eastern and western sides of State Route 156, and additional beds located at the City's Industrial Wastewater Treatment Plant.

In 2004, the City of Hollister, the County Water District, and San Benito County entered into a Memorandum of Understanding (MOU) for the development of the Hollister Urban Area Water and Wastewater Management Plan (Master Plan). The Master Plan addresses water quality, water supply reliability, water and wastewater system improvements within the Hollister Service Area, which includes the project site. Wastewater system improvements identified in the Master Plan have been implemented resulting in the expansion of the DWTP capacity from 2.7 MGD to 5 MGD, or 0.5 MGD greater than the 2023 wastewater flow projection of 4.5 MGD.

3.14.2 REGULATORY SETTING

STATE

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

In accordance with the California Integrated Waste Management Act (Public Resources Code Section 40000 et seq.), all cities and counties are required to divert 50 percent of solid waste generated within their respective boundaries. The Act further requires every city and county to prepare two documents to demonstrate how the mandated rates of diversion will be achieved. The first document is the Source Reduction and Recycling Element describing the chief source of the jurisdiction's waste, the existing diversion programs, and the current rates of waste diversion and new or expanded diversion programs intended to implement the Act's mandate. The second document is the Household Hazardous Waste Element, which describes how each jurisdiction will ensure that household hazardous wastes are not mixed with regular non-hazardous solid waste and deposited at a landfill.

SB 610 WATER SUPPLY ASSESSMENT

Senate Bill 610 added section 21151.9 to the Public Resources Code requiring that any proposed "project," as defined in section 10912 of the Water Code, comply with Water Code section 10910 et seq. Commonly referred to as a "SB 610 Water Supply Assessment," Water Code section 10910 outlines the necessary information and analysis that must be included in an Environmental Impact Report (EIR) to evaluate the sufficiency of water supplies to serve the project as well as other existing and planned water demands over a 20-year projection. The WSA is required to be included in the administrative record that serves as the evidentiary basis for an approval action by the County.

STATE CEQA GUIDELINES

Appendix F, Energy Conservation, of the CEQA Guidelines allows EIRs to include a discussion of the energy consumption of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.

CALIFORNIA CODE OF REGULATIONS, TITLE 24, ENERGY EFFICIENCY STANDARDS

Title 24 energy efficiency standards are applicable to residential and nonresidential buildings, and were established in 1978 in response to a legislative mandate to reduce energy consumption in California. The standards are updated periodically to allow consideration and incorporation of new energy efficiency technologies and methods.

2005 CALIFORNIA ENERGY ACTION PLAN II

The California Energy Action Plan II is the state's principal energy planning and policy document, and serves as an "implementation roadmap for energy policies." It identifies state-wide energy goals, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that the state's energy is adequate, affordable, technologically advanced, and environmentally sound. This Plan is designed to guide the State so that it may achieve the identified goals by taking specific and measurable actions throughout California's energy sector. The Specific Action Areas identified in the Plan are as follows: Energy Efficiency; Demand Response; Renewable Energy Resources; Electricity Adequacy; Reliability and Infrastructure; Electricity Market Structure; Natural Gas Supply, Demand and Infrastructure; Transportation Fuels Supply, Demand and Infrastructure; Research, Development and Demonstration; and Climate Change. (California Energy Commission, 2005)

LOCAL

SAN BENITO COUNTY GENERAL PLAN AND ORDINANCES

Construction and maintenance of public services and utilities in San Benito County is enabled and regulated by the *San Benito County General Plan* and various County ordinances. The following policies from the General Plan are relevant regarding consideration of improvements to utilities, other services, and energy:

Land Use Element Policies

Policy 10 Septic systems may be allowed on parcels one acre or greater if percolation tests demonstrate to the County Health Department Division of Environmental Health that soil is suitable for septic use. Sewage disposal on parcels less than one acre shall not be by the use of septic systems, but shall be through a public utility service district.

Policy 35 The County shall encourage energy and water conservation techniques and energy efficiency in all new building design, orientation and construction.

Open Space and Conservation Element Policies

Policy 29 **Energy conservation**

It will be the County's policy to encourage the use of energy-efficient design in new construction.

Policy 30 **Water quality from development**

It is the policy of the County to require development projects that could contribute to the contamination and/or degradation of groundwater quality to be redesigned to avoid significant impacts.

Policy 31 **Wastewater treatment**

Wastewater treatment systems shall be designed to ensure the long-term protection of groundwater resources in San Benito County. Septic systems shall be limited to areas where sewer services are not available and where it can be demonstrated that septic systems will not contaminate groundwater. Every effort should be made in developing existing areas to reduce use of septic systems in favor of domestic wastewater treatment. Domestic wastewater treatment systems shall be required to use tertiary wastewater treatment as defined by Title 22.

Policy 33 **Water conservation**

To ensure more efficient use of groundwater resources it will be the policy of the County to require conservation of water resources in San Benito County and encourage inter-agency conservation to develop policies and programs for the protection and enhancement of habitat for fish on major tributaries to the Pajaro River (San Benito River, Pacheco Creek).

POLICY 34 **Evidence water quality and quantity for development**

Approval of new developments shall not be allowed without evidence of adequate water quality and quantity.

POLICY 35 **Hazardous waste and waste source reduction**

It is the policy of the county to implement the short-, mid-, and long-range goals and objectives outlined in the County of San Benito Final Source Reduction and Recycling Element and Household Hazardous Waste Element of 1992 or any future amendments.

Policy 36 **Hazardous waste management plan**

It is the policy of the County to implement the goals and objectives and policies of the San Benito County Hazardous Waste Management Plan, Volume I, July 1989.

SAN BENITO COUNTY CODE, CHAPTER 19.31 (ORDINANCE 748) – DEVELOPMENT LIGHTING REGULATIONS.

Ordinance 748 encourages lighting practices and systems which will conserve energy and resources while maintaining night-time safety, utility, security and productivity.

SAN BENITO COUNTY CODE, CHAPTER 21.07 (ORDINANCE 848) – GROWTH MANAGEMENT SYSTEM REGULATIONS.

The County has adopted a Growth Management Systems Ordinance ("GMO"), which, among other goals, is designed "to encourage a rate of growth which will not exceed the county's ability to satisfy future demands for such essential services as police and fire protection, roads, schools, water, sewers and the like…." To achieve its stated goals, the GMO restricts the County's population growth to an annual population increase based on the State of California's growth rate for the previous year or a 1% growth rate per year, whichever is greater, plus the population growth attributed to exempt projects.

The GMO applies to all new residential development projects within the unincorporated area of the County, except for those projects specifically listed as exempt. In December 2009, the County Board of Supervisors amended the GMO to exempt from the growth restrictions those dwelling units within projects "that are subject to a Housing or Development Agreement that has been approved by the San Benito County Board of Supervisors…."

SAN BENITO COUNTY LOCAL AGENCY FORMATION COMMISSION

The San Benito County Local Agency Formation Commission (LAFCO) oversees public agency boundary changes, as well as the establishment, update and amendment of spheres of influence (Government Code Sections 56001, 56375 and 56425). The overarching goal of LAFCO is to encourage the orderly formation and extension of governmental agencies. The primary purposes of LAFCO are as follows: (1) to facilitate orderly growth and development by determining logical local boundary changes; (2) to preserve prime agricultural lands by guiding development away from presently undeveloped prime agricultural preserves; and (3) to discourage urban sprawl and encourage the preservation of open space by promoting development of vacant land within cities before annexation of vacant land adjacent to cities.

It is anticipated that San Benito LAFCO's approval may be required for proposed changes of organization or reorganization or to otherwise approve the proposed annexation of a portion of the Plan Area, the LESSALT site and the CDF site into the Sunnyslope service area, as well as other potential LAFCO actions required for the proposed water and wastewater service provision to the project.

3.14.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring the project's environmental impacts are based on CEQA Guidelines, and criteria established by Water Code section 10910 specific to projects meeting certain size thresholds. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

- A substantial increase in demand for an adequate water supply over the existing condition, such that the public water system will not be able to adequately serve the project in addition to existing and projected water users over a 20-year projection;
- An inability to provide an adequate water supply, including facilities for treatment, storage and distribution;
- An exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- It would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- It would result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- It would require or result in the construction of new stormwater drainage facilities or expansion, the construction of which could cause significant environmental effects;
- It would be served by a landfill that does not have sufficient permitted capacity to accommodate the projects' solid waste needs;
- It would not comply with federal, state and local statutes and regulations related to solid waste; and/or
- It would cause wasteful, inefficient or unnecessary consumption of energy.

METHODOLOGY

The analysis of potential utilities and service system impacts is based upon information contained in the *Santana Ranch Water Supply Assessment* (WSA) adopted by the Sunnyslope County Water District on December 10, 2009; *City of Hollister Wastewater Treatment Plant Environmental Impact Report* (2006)*; Sunnyslope County Water District Long-Term Wastewater Management Plan* (January 2006); and the *Engineering Report for Development of Santana Ranch*.

PROJECT IMPACTS AND MITIGATION MEASURES

Water Demand and Delivery

Impact 3.14-1 The proposed project will increase the demand for potable water. However, the existing public water system serving the project site can adequately supply the proposed project, including existing and planned future uses over a 20-year projection. This is considered a **less than significant individual and cumulative** impact.

The Santana Ranch WSA was prepared by Tully and Young, LLC as part of the California Environmental Quality Act environmental review process to analyze the sufficiency of water supplies to meet projected water demands within Santana Ranch and other existing and planned uses through 2035. The WSA was formally adopted by Sunnyslope as the water supplier for the project on December 10, 2009. The WSA addresses existing and projected water demands; details water supplies; and includes a water supply sufficiency analysis based on the demand and water supply analysis. The WSA is included as **Appendix J** to this EIR.

The WSA analyzed water supply for the project under two development timeframe scenarios. The first scenario assumes that the timing of development of the project would be restricted as a result of the County's Growth Management Ordinance, which limits the number of residential units that can be constructed per year to those receiving allocations from the County. Under this scenario, project buildout is anticipated to occur by approximately 2033. The second scenario assumes that the project would qualify for an exemption from growth management restrictions permitted under the Growth Management Ordinance, where certain projects are exempted, including those that are subject to a development agreement such as this project. Assuming applicability of this exemption, the project would build out, as anticipated, within 10 to 12 years. An overview of the WSA analysis and sufficiency conclusions addressing both scenarios follows, below. As explained further below, after accounting for demand projections associated with land uses throughout the Study Area, Sunnyslope should have sufficient water to meet the demands of Santana Ranch and Sunnyslope's other service area demands for the next 25 years under both scenarios described above.

Water Demand

Water demand for the project was estimated on the basis of unit water demand factors for residential and non-residential uses. The WSA separately accounts for the conversion of irrigated and non-irrigated lands in the Study Area pursuant to Kennedy Jenks' analysis as contained in Appendix K to the WSA. In Section 4.1.2.4 of the WSA, Agricultural demands were reduced only with respect to those agricultural lands that are irrigated and would be removed from production consistent with Kennedy Jenks' analysis. While it is clear that natural or fallow lands will be converted as well, demands on these lands were not reduced prior to accounting for the future demands on these lands through conversion to an urban use. Under the assumption that the County Water District will seek to convert a portion of its CVP Agricultural allocation to an M&I allocation pursuant to its CVP contract (See Appendix F to the WSA, p. 6), a portion of the CVP Agricultural allocation removed from the Study Area through conversion of agricultural lands to urban lands is assumed to return to the Study Area in the form of a CVP M&I allocation. The WSA assumes about 69% of the water removed returns. (See WSA, Table 4-9.)

These demand factors are consistent with those used in the 2008 Hollister Urban Water Management Plan Public Review Draft, which is the best data available at the time the WSA was prepared, and are as follows

TABLE 3.14-1
SANTANA RANCH RESIDENTIAL UNIT WATER DEMAND FACTORS

Land-Use Category	Density Range (dwelling units/acre)[A]	Demand Factor (af/ac/yr)
Residential – Single Family	1-5	0.53
Residential – Multiple Family	5-12	0.25

[A] Although these assumed densities are slightly different than the revised Specific Plan, this does not affect the demand analysis because the single and multi-family category unit demand factors are based on a broad mix of units in each connection category as provided in the 2008 UWMP, Table 4-7, up to 12 units/acre as allowed by county land use policy. In case Santana Ranch constructs multi-family units with a density greater than 12 units per acre, up to 20 units/acre, the unit demand factor would likely be even less than estimated because it is assumed the units would be smaller, more compact, and have less landscape per unit.

TABLE 3.14-2
SANTANA RANCH NON-RESIDENTIAL UNIT-WATER DEMAND FACTORS

Land-Use Category	Coverage %		Water Demand Factor (af/ac/yr)	
	Indoor	Outdoor	Indoor	Outdoor
Neighborhood Commercial	60	5	1.0	2.5
Parks	5	80	0.5	2.5
School	50	10	2.0	2.5
Detention Basin	0	95	0.5	2.5
Fairview Road Right-of-Way	0	90	0.5	2.5

Applying the unit-water demand factors in **Tables 3.14-1 and 3.14-2** to the project-specific land uses in **Table 3.14-3** yields the project-specific water demands for Santana Ranch, estimated to be approximately 607 AF/YR when buildout is complete prior to 2035. The table information assumes the project will be subject to the growth management allocation process by the County, and will be constructed in phases beginning in 2010. The level of development anticipated to be in place at five year intervals up to the 2035 buildout year is included for each five year interval.

TABLE 3.14-3
PROJECTED SANTANA RANCH WATER DEMANDS

	Demand (acre-feet/year)				
	2015	**2020**	**2025**	**2030**	**2035**
Residential Land-Use Category					
Single Family	71	152	244	348	410
Multi-Family	14	29	47	67	79
Total Residential	**84**	**181**	**291**	**415**	**490**
Non-Residential Land-Use Category					
Commercial	1	3	5	7	9
School	3	6	9	13	15
Park	7	15	25	35	41
Detention Basin	2	4	7	9	11
Right-of-Way	2	5	7	10	12
Total Non-Residential	**15**	**33**	**53**	**75**	**89**
TOTALS					
Demand Subtotal	100	214	344	490	587
Unaccounted Water Demand (Res.)	4	9	15	21	24
Unaccounted Water Demand (Non.-Res.)	1	2	3	4	4
TOTAL DEMANDS	**105**	**225**	**361**	**515**	**607**

Sufficiency Analysis

As stated earlier, Sunnyslope obtains its groundwater supply from the Hollister Area Subbasin and the San Juan Bautista Subbasin of the Gilroy-Hollister Valley Groundwater Basin, which is further divided into three relevant subbasins known as Hollister East, Hollister West, and Tres Pinos subbasins. Because historic groundwater basin modeling has shown a relationship between the three subbasins, the "safe yield" of the combined three subbasin areas was used to represent the annual groundwater supply available. This approach is consistent with Appendix E in the 2000 UWMP (See WSA, Appendix I). Moreover, while the exact extent of the connectivity may not be certain, because Sunnyslope has wells in the Hollister East, Hollister West and Tres Pinos subbasins, Sunnyslope could draw its water supply from all three subbasins for the project. Therefore, a combined supply for all three subbasins was used to represent the available groundwater supply.

The WSA analyzes the capacity of the subbasins to supply all water demands within their collective boundaries, including all projected baseline water uses and the Santana Ranch project through 2035. Also added to the water supply are projected surface water deliveries from the San Felipe CVP unit. Single and multiple dry year conditions were studied, in order to determine whether supplies will be sufficient under worst case drought conditions.

For purposes of the sufficiency analysis, it is assumed that CVP deliveries into the Study Area do not increase above those provided historically, ranging from 14,037 AF in 2004 to 13,270 AF in 2007, and the baseline year used to assess reductions in dry years is 2007, a year which saw lower deliveries than in the recent past. Also, the single-dry year supply reduction scenario is assumed to be very severe and in line with what is projected for 2010 should it turn out to be a dry year. Further, supply projections are consistent with the San Luis Delta Mendota Water Authority projections, which take into account the December 15, 2008 Delta Smelt Biological Opinion, and June 4, 2009 Biological Opinion on salmon, steelhead, sturgeon and killer whales. Export limitations may also prevent the Bureau of Reclamation from delivering additional surface water. These assumptions provide a more conservative analysis for the impacts to groundwater conditions for the sufficiency analysis.

Sufficiency Analysis under Single and Multiple Year Conditions

Table 3.14-4 presents the projected demands in the Study Area during normal, dry and multiple-dry years assuming that Santana Ranch is developed under the County's current growth management restrictions without any exemption. In dry years, demands are assumed to increase by 5% to account for increased irrigation demands earlier in the year. This analysis assumes that all planned projects in the Study Area, including the Santana Ranch project, are fully constructed by 2035.

Normal Years

In normal years, total CVP surface supplies available in the Study Area are 13,270 AF/YR. Under build out of all planned projects as well as Santana Ranch by 2035, total system demands in a normal hydrologic year are projected to be 22,855 AF/YR. Normal-year groundwater pumping is estimated to be approximately 10,472 AF/YR in 2035, an amount well below the maximum safe yield of 16,000 AFA for the subbasin area. Under such conditions, there are no projected shortfalls in supplies because there will be sufficient groundwater available to serve the demand increment greater than the available CVP surface water supply.

Dry Years

In single and multiple-dry years, Central Valley Project surface water supplies are reduced consistent with the Bureau's Municipal and Industrial Shortage Policy and also according to the projections provided by the San Luis Delta Mendota Water Authority regarding agricultural reductions. The M&I Shortage Policy limits deliveries in dry years to a percentage of historical deliveries. Agricultural deliveries are subject to the percentage allocation provided by the San Luis Delta Mendota Water Authority based upon export conditions in a given year and San Luis reservoir conditions in a given year.

Ultimately, in 2035, under a single-dry year condition and a multiple-dry year condition, pumping exceeds 16,000 AF–safe-yield level. However, because it is assumed that dry and multiple dry years occur, on average in 3 out of every 10 years, the long-term average groundwater pumping would still remain below the represented safe-yield, even if periodic dry years result in groundwater extractions that exceed the "safe yield" value. Moreover, given that approximately 120,000 AF is assumed to be available in the subbasins as "usable" storage, pumping that exceeds the safe yield in a limited number of years is possible without adverse effects on supply availability. In other words, the basin can safely produce in excess of 16,000 AF because "safe yield" is not a fixed figure but rather a long-term average of what the basin can reliably produce, and in most years pumping will be below this amount.

TABLE 3.14-4
PROJECTED SUPPLY AND DEMAND COMPARISON
DURING NORMAL, SINGLE AND MULTIPLE-DRY YEARS

Year	Projected Water Demand af/yr)						Hydrologic Year Type		Surface Water Supply (af/yr)	Groundwater Supply (af/yr)	Projected Surplus/ (Shortfall) (af/yr)
	Project Demand	M&I City	M&I Sunnlyslope	M&I County Water District (Unic.)	Agri-cultural	Total					
Existing	0	4,060	3,330	3,989	13,784	25,164	Normal		13,270	11,894	0
2010	0	4,230	3,664	3,992	12,831	24,717	Normal		13,192	11,525	0
	0	4,356	3,774	4,112	13,473	25,715	Single Dry		3,006	22,709	0
							Multiple Dry	Year 1	6,012	19,703	0
								Year 2	4,008	21,707	0
								Year 3	4,008	21,707	0
2015	105	4,873	4,019	4,001	11,021	24,018	Normal		13,003	11,015	0
	108	5,019	4,140	4,121	11,572	24,959	Single Dry		3,246	21,713	0
							Multiple Dry	Year 1	6,124	18,835	0
								Year 2	4,205	20,753	0
								Year 3	4,205	20,753	0
2020	225	5,382	4,253	4,010	8,088	21,958	Normal		12,121	9,837	0
	232	5,544	4,381	4,130	8,492	22,778	Single Dry		3,318	19,461	0
							Multiple Dry	Year 1	5,901	16,877	0
								Year 2	4,179	18,559	0
								Year 3	4,179	18,559	0

Year	Projected Water Demand af/yr)						Hydrologic Year Type		Surface Water Supply (af/yr)	Groundwater Supply (af/yr)	Projected Surplus/ (Shortfall) (af/yr)
	Project Demand	M&I City	M&I Sunnlysl ope	M&I County Water District (Unic.)	Agri-cultural	Total					
2025	361	5,850	4,494	4,02 1	7,521	22,247	Normal		12,197	10,050	0
	372	6,025	4,629	4,142	7,897	23,065	Single Dry		3,462	19,603	0
							Multiple Dry	Year 1	6,027	17,038	0
								Year 2	4,317	18,748	0
								Year 3	4,317	18,748	0
2030	515	6,317	4,742	4,033	6,505	22,111	Normal		12,095	10,016	0
	530	6,507	4,884	4,154	6,830	22,905	Single Dry		3,593	19,312	0
							Multiple Dry	Year 1	6,088	16,817	0
								Year 2	4,424	18,480	0
								Year 3	4,424	18,480	0
2035	607	6,784	4,912	4,047	6,505	22,855	Normal		12,383	10,472	0
	625	6,988	5,059	4,168	6,830	23,671	Single Dry		3,751	19,920	0
							Multiple Dry	Year 1	6,290	17,381	0
								Year 2	4,597	19,073	0
								Year 3	4,597	19,073	0

Sufficiency Conclusion

The Santana Ranch WSA projects water demands for Santana Ranch of 607 AF/YR at buildout. The annual water demand estimate for all planned projects in the Sunnyslope service area, along with other reasonably foreseeable, probable projects likely to be constructed in Sunnyslope's service area consistent with the City of Hollister and County of San Benito General Plans and applicable growth management measures, and the Santana Ranch demands, is approximately 5,519 AF/YR at buildout. After accounting for the demand projections associated with land uses throughout the Study Area for the next twenty years, Sunnyslope should have sufficient water to meet the demands of Santana Ranch and its other service area demands for the next 25 years.

The conclusion that Sunnyslope should have sufficient water available to meet the needs of the Santana Ranch project, in addition to the other demands in its service area through 2035, rests on the following set of conservative assumptions:

- The Sunnyslope demand projections assume that buildout in the City of Hollister and the unincorporated area of Sunnyslope's service area will occur at the maximum extent possible, consistent with the residential growth control ordinances of both the City of Hollister and the County of San Benito. While this is consistent with population projections and the scope of pending projects, additional municipal and industrial construction will be dictated by market demand, which has slowed recently. Ultimately, some of the identified projects may not be approved for final development and construction and thus development may not occur at the maximum possible rate allowed under the ordinances.

- Demand estimates in dry years assume an additional 5% of demand over the normal year demand during the same time period. This assumption accounts for the potential that Sunnyslope customers will irrigate earlier in the season to account for dry spring conditions. This hypothetical demand augmentation may or may not manifest in dry years.

- The unit demands remain constant through 2035. Yet, there is the potential for both long term permanent conservation through the installation of more efficient water using appliances and fixtures, as well as short term seasonal conservation through behavioral changes that reduce the use of water during periods of drought.

- The demands assume a 5% loss factor over end-user estimated demands to account for system leaks and other losses associated with construction activities or system flushing.

- Also, long-term supplies are conservatively estimated because the baseline year used to assess reductions in dry years is 2007, a year which saw lower Bureau deliveries to the County Water District than in the recent past.* Also, the single-dry year supply reduction scenario is assumed to be very severe and in line with what is projected for 2010 should this year be a dry year. Given the fact that long-term upstream reservoir management under recently implemented environmental restrictions is likely to result in better storage conditions than those that will be in place for 2010, single dry year reductions are unlikely to be as drastic through 2035.

  * The 2007 CVP allocation was selected as the normal year allocation based upon communications with the San Luis Delta Mendota Water Authority. The Authority indicated that recent allocations (2008 and 2009), while severely restricted because of two biological opinions issued by the US Fish and Wildlife Service, were probably not good indicators of long-term supply

for South-of-Delta CVP Contractors. Because reservoir operators will adapt to the new environmental restrictions, the average annual storage conditions upstream of the Delta will likely improve compared to the last two years, and therefore the most recent pre-biological opinion water year was selected. (See WSA, p. 55) Notably, the dry-year water supply allocation assumptions reflect a reduction from the 2007 figures. (See WSA, Table 4-10).

Water Supply Sufficiency for Growth Management Allocation Exemption Scenario

A Recent amendment to the Growth Management Ordinance exempts projects with an approved development agreement from the unit allocation process. This would include the Santana Ranch project, as well as other potential planned projects within unincorporated San Benito County. As discussed above, this scenario would allow development of the project over an approximate ten-year timeframe, as proposed by the applicant, beginning in 2010. For purposes of the WSA, it was assumed that each of five significant reasonably foreseeable residential projects also would be exempted from the County's growth management restrictions, and that each project would begin receiving building permits, commence construction of units in 2011, and continue over a five- to ten-year period, and that water demands from these projects would first be realized in 2011.

By permitting the significant residential development projects sooner, project demands are realized sooner. Notably, by 2015 through 2020, demands are approximately 200 AF/YR greater than they are projected to be if development were to proceed without exemption from the growth management restrictions. This could potentially result in demand for water exceeding the available supply over this shorter timeframe. The WSA concluded, however, that the water demand requirements for these projects would be less than the water demand for the agricultural uses currently taking place on many of the lands where these projects would be developed, and therefore, the accelerated development of these projects would not result in the available water supply being exceeded.

Based on the analysis above and as set forth more fully in the WSA, Sunnyslope should have sufficient water to meet the demands of Santana Ranch and its other service area demands for the next 25 years. Also, groundwater capacity of the three-basin Study Area is projected to be more than adequate to serve the Study Area, including the Santana Ranch Project, for the next 25 years. Therefore, the project will have **less than significant impacts** on groundwater supplies, both individually and cumulatively.

Wastewater Collection and Treatment

Impact 3.14-2 A new wastewater treatment plant may be required to be constructed to serve the project. Construction of the treatment plant could result in degradation of surface water quality; degradation of groundwater quality; creation of mosquito breeding sites; noise impacts; on-going odors and potential release of hazardous materials near a residential area. These impacts are considered **potentially significant**.

The *Engineering Report for Development of Santana Ranch* prepared by RJA estimates that wastewater flows for the project will range from 298,540 to 381,980 gallons per day (gpd) at buildout.

According to the Specific Plan, wastewater treatment for the project will be accomplished using one of the following two options: 1) by connecting to the City of Hollister Domestic Wastewater Treatment Plant; or 2) by constructing and operating an on-site treatment plant.

City of Hollister Domestic Wastewater Treatment Plant (Option 1)

As discussed above, the City of Hollister's Domestic Wastewater Treatment Plant (DWTP) is currently capable of treating and disposing of the existing effluent flow of approximately 5 MGD, which is 0.5 MGD greater than the 2023 wastewater flow projection of 4.5 MGD for the Hollister Service Area. The planned service area for the DWTP includes the City of Hollister, as well as a number of contiguous areas outside the City limits, including the Santana Ranch project site. While the wastewater generation estimates from the project site were based on a significantly lower density than is currently being proposed under the project, the excess capacity of the plant of 0.5 MGD exceeds the overall maximum estimated flows from the Santana Ranch project of 0.38 MGD. Therefore, the plant will have adequate capacity to serve the project. The project would tie into the existing sewer line network at a point of connection (POC) within Hillcrest Road, approximately 1,200 feet from the northwest corner of the project site.

In order for the project to obtain capacity from the City of Hollister's DWTP, it is anticipated that LAFCO approval of this arrangement would be required.

New Treatment Plant (Option 2)

In the event the project is not ultimately able to connect to the City of Hollister's DWTP, then the applicant proposes to construct an on-site wastewater treatment plant (WWTP) utilizing the Sequencing Batch Reactor (SBR) process. The facility would be located on the 26-acre WWTP site, which is at the northeastern boundary of the project site, approximately 500 yards south of Mansfield Road. Wastewater treatment would be achieved by a timed sequence of operations, which generally consists of filling, reaction (aeration), settling, decanting, idling, and sludge wasting. All treatment would occur within the enclosed SBR tank and treated effluent would be discharged to an on-site storage pond for later discharge to the Hollister Reclaimed Water Project which would then use the treated effluent for irrigation of common landscape areas and parks within the project. The effluent quality will meet California Title 22 requirements for unrestricted, non-potable use. Solid wastes would be disposed of at the Hollister Domestic Wastewater Treatment Plant. See attached **Appendix G** for additional information regarding the proposed conceptual SBR system for the project.

Operational Description

Collection System: Wastewater from the project would be collected through a system of sewer lines, force mains and pump stations and conveyed to the WWTP. The collection system would consist of a network of 8-inch lines located in easements along Fairview Road and internal collector streets. Wastewater generated east of the north-south on-site ridge would gravity flow to the north-south central swale, then northward to the project boundary, then eastward to the treatment facility. Wastewater generated west of the north-south ridge would gravity flow to the northwestern corner of the project site where a lift station would pump the wastewater eastward along the northern site boundary to a point just east of the PG&E gas line easement, and then gravity flow eastward to the treatment facility.

Treatment Facility: The facility would include a building which would house the storage and treatment equipment and an emergency generator. The treatment facility would be fenced for security and landscaped to provide an aesthetically pleasing appearance. Access to the facility would be via a gravel road from Mansfield Road approximately 1,500 feet to the north, or by the extension of Hillcrest Road into the project. The treatment plant would be designed to treat an average dry weather flow of 0.32 mgd.

Effluent Disposal by Discharge and Irrigation: Treated effluent may be used to irrigate parklands and common landscaped areas within the project via a system of reclaimed water lines (i.e. purple pipe) proposed to be installed within roadway utility easements. Effluent that is not immediately needed for irrigation would be stored in an off-site pond to be excavated adjacent to the treatment plant facilities, or discharged into the City of Hollister Reclaimed Water Project when a reclaimed water line is installed within the Fairview Road right of way in the future.

Long-term Wet Weather Storage: Irrigation disposal during the rainy season would be severely restricted, so treated effluent produced during this period would be temporarily stored in a holding pond to be excavated on the WWTP site. The ultimate storage capacity of the pond was estimated by Greiner Engineering/RJA to be either 63 acre-feet (which will provide 60 days of storage) or 94 acre-feet (for 90 days of storage), with the final capacity depending on the requirements specified by the Regional Water Quality Control Board. These calculations include consideration of volume fluctuations due to rainfall and evaporation; but seepage from the bottom of the pond was assumed to be zero to be conservative.

At a maximum depth of 20 feet, the surface area of the pond would be approximately 5.5 acres for a 63 ac-ft pond. To provide the pond with a natural appearance, the shoreline would be given an irregular shape and landscaping would be planted around the edge. The pond would also be surrounded by a security fence (unless the Regional Board deems it unnecessary), and signs would be posted indicating that reclaimed wastewater is being stored. The pond would have a perimeter dike or berm to prevent inflow of surface runoff, and an approximately ten foot wide maintenance road would be constructed around the pond.

If the Regional Board requires a water barrier for the bottom of the pond, bentonite would be disked into the top six inches of soil and rolled. Alternatively, a PVC liner could be used to line the pond bottom. If no barrier or liner is required, a portion of the stored effluent would likely percolate into the ground before it could be used for irrigation. However, it is also likely that the exfiltration (seepage) rate would decrease over time as fine sediments settle to the bottom of the pond creating an increasingly impermeable layer.

Instead of providing a pond sized for the total project storage requirements in the initial phases of development, a smaller pond may be excavated at first to correspond to the lower initial storage requirement. As subsequent phases of development are completed, the pond would either be enlarged or a second pond would be added to provide the additional capacity needed.

Sludge Handling and Disposal: The sludge that would accumulate from the treatment process would be stored in enclosed, below-ground tanks within the treatment plant facility. Sludge would be removed from the facility by pumper trucks for disposal at a larger treatment facility, such as the City of Hollister's DWTP, which is approved to handle these materials. The removal interval is anticipated to be once every 87 days at low flow conditions and once every three to four days at full design flow. Pumper trucks would access the facility via the Hillcrest Road extension into the project. Due to the relatively low frequency of truck removal, neighbhorhood disturbance from truck noise is anticipated to be minimal, similar to the level of disturbance experienced by refuse pickup vehicles.

Facility Operation and Maintenance: The proposed WWTP would be owned and operated by a County Service Area (CSA) or similar entity established for the project (see Financing, Operation and Maintenance below). Since the system would generate more than 2,500 gallons of effluent per day, it would be under the jurisdiction of the Central Coast Regional Water Quality Control Board, and would require a waste discharge permit from the Board. The identified entity would

be the responsible party (i.e., "discharger") named in the Waste Discharge Requirements (i.e., permit) issued by the Regional Board for the facility. Actual day-to-day operations could be performed by entity employees or by contractors. However, the entity would have ultimate responsibility for compliance with the Waste Discharge Requirements and the submittal of monitoring reports to the Regional Board.

With respect to day-to-day operations, Division 4 of Title 22 of the California Code of Regulations contains specific requirements for monitoring, record keeping and treatment plant maintenance to assure public health protection. At a minimum, the inspections would involve weekly checks on all pumps, piping and effluent levels in the treatment plant, leachfield system and irrigation area to assure proper operation and early detection of any problems. The monitoring program would also include sampling and analysis of surface water and groundwater for coliform bacteria and nitrates. Monitoring reports would be required to be submitted to the Regional Board monthly and annually. The Regional Board staff would also periodically inspect the facility for compliance with the Waste Discharge Requirements.

A certified wastewater treatment plant operator would be required for the treatment plant. However, since the treatment process would be essentially automatic, there would be little need for operator involvement in the process except for occasional cleaning of the influent screen. It is anticipated that water quality testing and regularly scheduled maintenance would require less than 20 hours per week for a well-trained individual, with maintenance help as required. The SBR equipment manufacturer would provide a detailed operation and maintenance manual including regularly scheduled maintenance items.

Discussion of Potential Impacts

Surface Water Quality The effluent produced by the wastewater treatment facility would be Class I reclaimed water (suitable for unrestricted landscape irrigation) under Division 4 of Title 22 of the California Code of Regulations.

In the event that treated effluent was to be released into natural streams or water bodies, this would represent a significant water quality impact. However, the proper design and operation of the reclaimed water irrigation system would avoid runoff of the effluent from the disposal area into streams or drainages. No irrigation would occur within 500 feet of a domestic well or within 100 feet of an irrigation well. No irrigation would occur during the rainy season, thus avoiding the potential for the treated effluent to be carried away in stormwater runoff.

The potential for the effluent storage pond to overflow would be minimal since it would be sized to include: (a) surplus storage capacity to account for extreme wet weather effects; and (b) two-feet of freeboard in the pond above the projected maximum water depth (which is substantially greater than the amount of rainfall expected in the 100-year/24-hour storm). The calculated winter storage requirement is based on 60 (or 90) days with no irrigation, and it is assumed that there would be no seepage losses.

There is a very remote possibility of leakage or spill of wastewater at the treatment plant during a major earthquake. However, since the collection and process tanks would be below grade, and designed to meet seismic requirements for underground storage tanks, the potential for failure or release of wastewater during an earthquake would be minimal. Similarly, the potential for a spill of treated effluent from the storage pond would be minimal since the pond would be excavated below grade.

The Waste Discharge Requirements to be stipulated for the project by the Regional Water Quality Control Board would include a requirement that surface waters upstream and downstream of the effluent disposal area be sampled and tested for water quality monthly, with corrective action taken if necessary. The specific measures to be taken in the event of a violation would be stipulated in the 'Contingency Plan,' contained in the Waste Discharge Requirements (i.e., permit) to be issued for the treatment facility by the Regional Board.

Groundwater Quality The ponded effluent from the SBR process would contain nitrate concentrations of less than 8 mg/l, which is lower than the federal drinking water standard of 10 mg/l. Depth to groundwater on the site ranges from 140 to 180 feet (Jones & Stokes, 1997), although well tests performed on the site in 1985 and 1987 did not encounter groundwater to a drilling depth of 800 feet. In any event, groundwater is at sufficient depth that it would not be adversely affected by effluent in the storage basin.

The storage ponds would be sited and designed to meet other Regional Board requirements for setbacks from irrigation wells and streams (100 feet), and domestic wells (500 feet), and for maximum slopes (average less than 20 percent).

In addition, the Regional Board would require the installation of monitoring wells near the pond area as part of the Waste Discharge Requirements (permit) for the project. The permit would include contingency measures to be implemented if water quality requirements are not being met.

Odor Generation All of the proposed treatment facilities would be enclosed or covered, so odors generally would not be expected to occur outside the facility building. Air within the storage tanks and process treatment rooms would be passed through scrubbers before being vented to the outside, further preventing exterior odors from occurring.

The potential for odors to be generated by algae that might form in the effluent storage pond is minimal. The nutrient levels of the effluent entering the pond would be very low (8 mg/l or less) and stagnant water conditions would be avoided by the continuous aeration of the water.

The proposed sewage collection system would include a pump station at the northwestern corner of the project site. This pump station would be placed underground and enclosed, and would not result in the generation of odors so long as it is properly sized and maintained. In the unlikely event that odors are produced at the sewage pump station, such odors can be mitigated by adding chemicals such as potassium permanganate to provide oxygen to oxidize the odiferous sulfur compounds to non-odorous compounds. If necessary, odor control at the pump stations could also be achieved by venting through subsurface soil "scrubber" trenches, or through above-ground activated carbon canister-type filters. Implementation of these measures would-reduce any pump station odors to a **less than significant** level.

Mosquito Breeding The pond would be aerated to prevent the growth of odor-producing algae and to inhibit mosquito breeding. This would be accomplished by six mechanical aerators that would float on the water surface and be moored in place. The aerators would consist of units with enclosed motor-driven propellers that would continuously agitate the water and keep it circulating.

Noise Generation The main potential noise source would be the standby generator at the control building which would be tested as frequently as once per week for a period of 10 to 30 minutes. Although the standby generator would be kept inside the control building, the noise may emanate from exhaust stack at the top of the building.

To minimize noise impacts, the generator would be situated within the control building and equipped with a muffler system. The exhaust stack would be located on the opposite side of the building from the nearest residences. The generator would be tested at times when the noise would be least objectionable to residences in the vicinity (i.e. daytime hours). Finally, the sewage pump station planned for the northwestern corner of the site would be placed underground and enclosed, and therefore would not result in significant noise impacts to proposed residences nearby.

Hazardous Materials Various chemicals will be used in the treatment process and would be kept at the facility. These include polymers and alum, as well as small amounts of lubricating oil. A diesel fuel tank for the standby generator would be placed outside the control building. These are all common elements of treatment plants and standard procedures for their safe handling are well established. High-output UV disinfection modules would be utilized, therefore, no hypochlorite would be used for disinfection purposes. In addition, secondary containment would be required for the diesel fuel tank to contain any potential spills or leaks.

Conclusion. With the implementation of the following mitigation measures, the potential wastewater and related impacts resulting from the project will be reduced to **less than significant** levels.

MM 3.14-2a If the on-site wastewater treatment facility option is selected, the plant shall be designed, permitted and operated in accordance with local, state and federal regulations. The design of the plant shall be reviewed and approved by the County's Public Works and Environmental Health Departments, the Regional Water Quality Control Board, and any other agencies as required by applicable law and regulations.

MM 3.14-2b If the on-site wastewater treatment facility option is selected, the facilities shall be enclosed or covered, and air within the storage tanks and process treatment rooms shall be passed through scrubbers before being vented to the outside. In the event odors are produced at the proposed sewage pump station, chemicals such as potassium permanganate to provide oxygen to oxidize the odiferous sulfur compounds to non-odorous compounds shall be added; or, if necessary, venting through subsurface soil "scrubber" trenches, or through above-ground activated carbon canister-type filters shall occur.

Construction or Expansion of Stormwater Drainage Facilities

Impact 3.14-3 The proposed project will require the expansion and construction of new stormwater drainage facilities, which could result in impacts to air and water quality. This impact is considered **potentially significant**.

The proposed project will include the construction of detention basins within the Plan Area that are designed to collect stormwater runoff from the project, and release this runoff at the current 10-year storm runoff rate of the project site. Metered release of the basin would occur at the existing roadside swale on Fairview Road, and eventually reach Santa Ana Creek north of the project site. The existing roadside swale may be required to be cleared of existing vegetation and debris to continue to adequately accommodate the 10-year storm flows from the project site, and the swale outfall to Santa Ana Creek may require improvements to adequately discharge the stormwater.

Construction of the basins would involve construction activities on the project site, such as site clearing, mass grading, excavation and trenching, which could adversely affect water quality by increasing soil erosion rates in the area of the proposed project. The exposure of raw soil to the natural elements (e.g. wind, rain) during grading operations may impact surface runoff by increasing the amount of silt and debris carried by stormwater runoff.

Construction activities associated with any required improvements to the Fairview Road swale outfall to the Santa Ana Creek have the potential to degrade water quality in the creek. Potential impacts would be similar to those associated with construction on the project site, and could include discharge of soils and sediment into the streambed, as well as pollutants from construction equipment and debris during construction. The developer will be required to obtain necessary permits for any work within the creek channel from the Army Corps of Engineers, Department of Fish and Game, and the Regional Water Quality Control Board. The purpose of these permits is to ensure that water quality is protected both during and after construction of improvements in the channel.

Section 3.8, Surface Hydrology and Water Quality, contains mitigation measures addressing erosion and water quality impacts associated with construction on the site in general, which would also be applicable to the construction of the new drainage facilities discussed above. These measures include, but are not limited to, the preparation of a SWPPP incorporating best practices for the protection of water quality during site construction. Other measures in this section are incorprorated to minimize potential soil erosion impacts of project construction, and are also applicable to construction of storm drainage facilities. These measures include stabilization of stockpiles with chemical stabilizers or watering. These measures will also minimize the potential for air quality impacts during construction from fugitive dust. The following mitigation measure will ensure that these measures will be implemented with construction of the drainage facilities, thereby resulting in **less than significant impacts** associated with the construction of required storm drainage facilities for the project.

MM 3.14-3 All required water quality and soil erosion protection measures required within Mitigation Measures **MM 3.8-2** and **MM 3.8-3** shall be implemented during the construction of the required stormwater drainage facilities for the project.

Landfill Capacity

Impact 3.14-4 The proposed project could be served by a landfill that does not have sufficient permitted capacity to accommodate the project's solid waste needs. This impact is considered **less than significant**.

The projected remaining capacity of the John Smith Road Landfill, as of July 4, 2008, is approximately 2,093,309 cubic yards, or 17.5 years of capacity, based on the average daily refuse acceptance rate of 250 tons. Regulations contained in Title 14 of the California Code of Regulations require the maintenance of a minimum of 15 years of permitted disposal capacity for county or regional landfills. As noted above, the projected remaining landfill service life was 17.5 years in July, 2008. The amount of refuse produced by the project, however, could reduce this service life, potentially triggering the need for expanded landfill capacity within a shorter timeframe. As discussed above, however, a site adjacent to the existing landfill has been identified as a part of the landfill's future planning process for study as a potential future landfill site, and it is anticipated that this site will be utilized to fulfill the existing landfill's obligation to maintain a 15-year minimum disposal capacity for the County as a whole. Potential impacts associated with the project being served by a landfill without sufficient permitted capacity are therefore considered to be **less than significant.**

Solid Waste Disposal

Impact 3.14-5 The proposed project could potentially not comply with federal, state and local statutes and regulations related to solid waste. This impact is considered **less than significant**.

Currently, solid waste disposal for the project site is provided by Integrated Waste Management, and placed in the County Landfill located on John Smith Road approximately 2 miles east of the Plan Area. Upon development of the project, Integrated Waste Management will continue to serve the project site. As discussed above, solid waste generated by the project will be placed in the County Landfill, which has the required 15-year capacity to serve the project. Section 6.6 of the Specific Plan requires the project developers to provide areas on-site to facilitate recycling within the Neighborhood Commercial center. Residential areas will be served by curbside recycling provided by Norcal Waste Systems. Where curbside pick-up is not practical, conveniently located centralized recycling storage and collection facilities will be provided. Because the project will be designed to facilitate solid waste disposal and recycling collection in compliance with the requirements of the County's solid waste and recycling service providers, and the John Smith Landfill is anticipated to have the required 15-year disposal capacity to serve the project, it is anticipated that the project would comply with federal, state and local statutes and regulations related to solid waste. Therefore, the project's impacts in this regard would be **less than significant**.

Energy Consumption

Impact 3.14-6 The proposed project could result in the wasteful or inefficient consumption of electricity, natural gas and gasoline. This impact is considered **less than significant**.

Electricity and Natural Gas

Optimally, the proposed project would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, electronics, office equipment, and commercial machinery. Energy would also be consumed during each vehicle trip associated with these proposed uses.

Rough estimates of operational energy usage by the proposed project are provided in **Table 3.14-5**. The data in this table, which utilize average energy consumption factors, are based on the land uses that would be constructed under the proposed project. It is important to note that actual energy usage could vary depending upon factors such as the specific type of commercial uses that ultimately would occupy the buildings, actual miles driven by future residents/ employees, and the degree to which energy conservation measures are incorporated into the various facilities.

TABLE 3.14-5
ESTIMATED ANNUAL ENERGY USAGE

Energy Type	Usage/Unit	Project Build-out	Annual Energy Use
Residential			
Electricity	7,032 kWh/du/year	Approx. 1,092 du	7.6 million kWh
Natural Gas	53,800 ft3/du/year	Approx. 1,092 du	58.7 million ft3
Commercial			
Electricity	17.7 KWh/ft2/year	65,000 ft2	1.2 million kWh
Natural Gas	22 ft3/ft2/year	65,000 ft2	1.4 million ft3
Elementary School			
Electricity	7.46 KWh/ft2/year	85,400 ft2[a]	637,084 kWh
Natural Gas	16 ft3/ft2/year	85,400 ft2[a]	1.37 million ft3
Total Electricity Usage			**9.4 million kWh**
Total Natural Gas Usage			**61.4 million ft3**
Transportation – Gasoline			
Gasoline	0.058 gallons/vehicle/mile[b]		418,213 gallons[c]

Notes:

[a] Based on 122 square feet per student.
[b] Based on 2007 average of 17.2 miles traveled per gallon.
[c]The average vehicle trip length is estimated to be approximately 1.5 miles. Gasoline usage is based on 13,170 daily vehicle trips generated by the project.

Units	Information Sources:
ft3 = cubic feet	California Department of Education
ft2 = square feet	California Energy Commission
kWhr = kilowatt hour	Hexagon Transportation Consultants
du = dwelling unit	Bureau of Transportation Statistics

According to the California Energy Commission (CEC), in 2006, California used over 281,200 gigawatt hours of electricity, and approximately two trillion cubic feet of natural gas. Additionally, almost 16 billion gallons of gasoline were consumed in California in 2006. As shown in the table above, the projected project consumption of these resources is a minute fraction of overall state usage. Efforts have been underway at the state and federal level for a number of years, however, to significantly reduce energy consumption within many areas of the economy, including building construction, household use, commercial and office use, and transportation. State goals and policies contained within the California Energy Action Plan II are generally representative of these efforts, and address the broad areas of energy efficiency and increasing use of renewable resources.

As noted in Table 3.3-12 of the **Section 3.3, Air Quality,** of the EIR, the proposed Specific Plan includes numerous policies related to resource conservation and the promotion/use of alternative transportation. The proposed Specific Plan also incorporates "Green Building Design Guidelines," which are intended to encourage sustainable development, LEED-certification for commercial development, compliance with Title 24 Energy Efficiency Standards, and use of the "Build it Green" point rating systems within the project. Implementation of these measures will result in the more efficient use of energy supplies, including electricity, natural gas, and gasoline, consistent with state and federal goals and policies supporting energy efficiency.

Among other things, the Santana Ranch project accommodates growth and helps reduce GHG emissions through a number of elements ranging from the placement of land uses to the required design features of commercial and residential buildings. The project integrates a variety of residences, retail, services, offices, parks, and a proposed school site in close proximity, decreasing the need to drive outside of the Plan Area. Through this mix of land uses connected by bicycle and pedestrian paths, the project encourages residents to drive less, thereby reducing GHG emissions, and to adopt a more sustainable lifestyle.

The project employs a variety of land use and design elements to promote sustainable development and reduce GHG emissions including but not limited to the following:

- Provides local employment opportunities for local builders, contractors, and suppliers to reduce the transportation impacts of traveling outside of the County.
- Links neighborhoods and land uses in the Plan Area through pedestrian and bicycle paths.
- Links the project to the regional bicycle network through a Class I bicycle path on Fairview Road.
- Locates a designated park-and-ride facility in the Neighborhood Commercial center to encourage carpooling.
- Provides an information board in the Neighborhood Commercial center or at the bus stop to distribute information on ride sharing and other public transit services that may be offered by the San Benito County Local Transportation Authority (LTA).
- Plants tree varieties which will provide shade through the summer and will allow solar access in the winter.
- Provides landscaping along all rights-of-way, including primary and secondary street trees, shrubs and ground cover, which will help reduce the heating of asphalt.
- Plants a majority of shade trees within the parking areas of the Neighborhood Commercial center. Trees should provide a 50 percent shade canopy within 15 years of planting.
- Encourages drought-tolerant groundcover and native species.
- Orients homes on an east-west axis to allow for passive solar design to the extent feasible.
- Installs a dual water distribution system to allow for recycled water for irrigation of the proposed school site, the Neighborhood Commercial center, parks, detention basins and landscape corridors, and large landscape areas.
- Requires that proposed commercial uses provide bicycle parking facilities
- Provides transit-stop improvements (i.e., benches, lighting) at transit stop locations.
- Offers live/work units within the SR-RM neighborhoods based on market demand.

Additionally, the project will meet or exceed California's Title 24 (Building Code) requirements, which are the most rigorous energy code requirements in the nation. The residences will include a number of features to help reduce GHG emissions and improve energy efficiency. Examples include:

- Extensive insulation in floors, walls, and attics that will help regulate even temperatures throughout the house and reduce energy use
- High performance windows that employ advanced technologies, such as protective coatings and improved frames, to help keep heat in during winter and out during summer
- Tight construction and ducts in heating and cooling systems that help reduce drafts, moisture, dust, pollen, and noise, reducing utility and maintenance
- Efficient heating and cooling equipment such as automatic setback thermostats that use less energy to operate
- ENERGY STAR qualified products, where feasible, including lighting fixtures, compact fluorescent bulbs, ventilation fans, and appliances
- Energy efficient water heaters
- Roof systems that include radiant barrier sheathing, to reflect radiant heat from the sun, lower attic temperatures, improve energy efficiency, and reduce cooling energy costs.
- More roof vents than are required by Title 24, to allow for natural air flow to keep the roof deck cool and dry without using the energy needed to run an attic vent fan.
- Minimum of one exterior electrical outlet at rear, side, and front yard locations to promote/allow the use of electric landscape maintenance equipment.
- Non wood burning fireplaces as a standard feature throughout the project
- High efficacy luminaires and/or motion sensors throughout many areas of the home
    - Kitchens: At least 50% of the total wattage of kitchen lighting must be from high efficacy luminaires.
    - Bathrooms, utility rooms, garages and laundry rooms: High efficacy lighting or manual-on occupancy sensors required.
    - Porch and/or garage light: A motion sensor and/or a photocell that turns the light on only when someone is present, or on at night and off in the morning will be installed for these, as some of the most used lighting fixtures in a home.
    - Other exterior lights attached to building: High efficacy luminaires or combined photo sensors/occupancy sensors required.

With the implementation of the above-referenced land use, design and building features, impacts resulting from the inefficient use of these resources are therefore considered **less than significant**.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Demand for Wastewater Treatment

Impact 3.14-7 The proposed project, in addition to past, present, and reasonably foreseeable, probable future projects in the vicinity, will generate demand for water treatment services, potentially resulting in the need for new or expanded wastewater treatment services. **Less than significant cumulative impacts** will result from development of the project.

While the proposed project, combined with existing and reasonably foreseeable, probable future projects in the vicinity, will result in the increased demand for wastewater treatment services, it is anticipated that adequate treatment capacity will exist through connection to the City of Hollister Domestic Wastewater Treatment Plant. This plant has been expanded to accommodate growth anticipated in the water treatment service area, which includes the City of Hollister and contiguous areas within the Hollister urban area. Because this capacity already exists and would be available for the project as well as other cumulative development, it is not anticipated that the capacity of the plant will need to be expanded, or new facilities built. Therefore, the project would not make a cumulatively considerable contribution to cumulative environmental impacts associated with new or expanded wastewater treatment facilities.

Construction of Stormwater Drainage Facilities

Impact 3.14-8 The proposed project, in addition to past, present, and reasonably foreseeable, probable future projects in the vicinity could require the expansion and/or construction of new stormwater drainage facilities, which could result in cumulative environmental impacts to air and water quality. These impacts are considered to be **less than significant**.

Similar to the project, development of other cumulative projects as listed within **Chapter 5.0, Cumulative Impacts Summary**, would require the construction of storm drain facilities to collect and manage stormwater runoff generated by these projects. The construction of these facilities would involve activities such as site clearing, mass grading, excavation and trenching, which can adversely affect water quality by increasing soil erosion rates in the construction area. The exposure of raw soil to the natural elements (e.g. wind, rain) during grading operations may impact surface runoff by increasing the amount of silt and debris carried by stormwater runoff. These impacts could combine and result in potentially significant air quality and water quality impacts.

However, it is anticipated that these projects, similar to the proposed project, will be required to prepare Storm Water Management Plans, and that these plans will be required to incorporate best practices for the protection of water quality and air quality during site construction. These measures are intended to minimize water and air quality impacts during construction. Therefore, the project would not make a cumulatively considerable contribution to cumulative water and air quality impacts associated with the construction of storm water facilities and it is anticipated that cumulative impacts associated with new or expanded stormwater drainage facilities will be **less than significant**.

Solid Waste Disposal Capacity

Impact 3.14-9 The project, combined with other past, present and reasonably foreseeable, probable future projects within the County, could result in insufficient permitted capacity to accommodate the solid waste needs of this cumulative development. This impact is considered **less than significant**.

The proposed project, in combination with past, present, and reasonably foreseeable, probable future development in the County, will generate additional demand for refuse disposal. Current and reasonably foreseeable, probable future projects include those listed within **Chapter 5.0, Cumulative Impacts Summary.**

Similar to the project, other cumulative development will be required to pay dumping fees, which are then used to create new and/or expand existing landfill facilities. These fees are

programmed by the landfill to increase capacity required to accommodate the refuse from these new and planned projects. While the proposed Santana Ranch project, in combination with other cumulative development in the County, may ultimately result in the need for expanded landfill capacity, it is anticipated that this capacity will be provided through payment of the applicable fees. It is therefore anticipated that cumulative impacts associated with insufficient landfill capacity will be **less than significant**.

Energy Consumption

Impact 3.14-10 The proposed project, in combination with other past, present and reasonably foreseeable, probable future development within the County, could result in the wasteful or inefficient consumption of electricity, natural gas and gasoline. This potential cumulative impact is considered **less than significant**.

Policy 29, Energy Conservation, within the San Benito County General Plan Open Space and Conservation Element encourages the use of energy–efficient design in new construction. As discussed above, the project incorporates numerous land use, design and building features to address the incorporation of energy efficient design and building materials, and passive solar energy, including site orientation for solar access. In addition, a network of bicycle and pedestrian paths are provided to facilitate alternative modes of transportation. These and other features will result in the reduction of energy usage within the project. It is anticipated that the current and reasonably foreseeable, probable future projects listed within **Chapter 5.0, Cumulative Impacts Summary** will also be required to incorporate energy-saving design features, in accordance with the requirements of San Benito County, as well as with other applicable policies, laws and standards of the City of Hollister, such as Title 24 Energy Efficiency Standards. Cumulative impacts resulting from the the wasteful or inefficient consumption of electricity, natural gas and gasoline, are therefore anticipated to be **less than significant.**

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