

4.9 WATER RESOURCES AND WASTEWATER SERVICES

This section addresses potential impacts to water supply as well as water and wastewater systems. Potential impacts to solid waste disposal systems are discussed in Section 4.3, *Public Services*. Water/wastewater development assumptions are included in Appendix H.

4.9.1 Setting

4.9.1.1 Water Setting

Water Sources in the Santa Ynez Valley

Three sources of water are currently utilized within the SYVCP Plan Area:

- 1) Groundwater: Santa Ynez Uplands Basin, Buellton Uplands Basin, & Santa Ynez River Alluvial Basin
- 2) Surface Water: Lake Cachuma
- 3) State Water Project

These resources are utilized by 21 water providers, listed below in Table 4.9-1, as well as various overlying municipal and agricultural users who pump groundwater within the Plan Area.

Table 4.9-1 Water Sources and Providers

| Basin | Provider |
|--------------------------|--|
| Santa Ynez Uplands Basin | <ul style="list-style-type: none"> • Santa Ynez River Water Conservation District Improvement District No. 1 (ID-1) • City of Solvang • Walking M Ranches • Rancho Ynecita • Oak Trail Ranches • Oak Trail Estates • Woodstock Property Owners • Bridlewood Winery • Shepherd of the Valley • Santa Ynez Roblar Mobile Home Park • Santa Ynez Rancho Estates • Rancho Marcelino • Skyline Park • Rusack Winery |
| Buellton Uplands Basin | <ul style="list-style-type: none"> • City of Buellton • Bobcat Springs • Mesa Hills |
| Santa Ynez River Basin | <ul style="list-style-type: none"> • ID-1 • City of Solvang • Mosby Winery • Shoestring Winery • City of Buellton |
| Lake Cachuma | <ul style="list-style-type: none"> • ID-1 |
| State Water Project | <ul style="list-style-type: none"> • ID-1 • City of Solvang • City of Buellton |



The Santa Ynez River Water Conservation District Improvement District No. 1 (ID-1) is the sole public water purveyor in the Santa Ynez Valley Community Plan Area (SYVCP). ID-1 serves the communities of Santa Ynez, Los Olivos, Ballard and the Chumash Indian Reservation. Several small public water systems (serving fewer than 200 service connections) and numerous private water systems are also located throughout the planning area as shown on Figure 4.9-1 and tabulated above in Table 4.9-1. The incorporated cities of Buellton and Solvang do not provide water to residents of the Plan Area, but do draw water from area water supply sources.

Santa Ynez Uplands Basin: The Santa Ynez Uplands Groundwater Basin is the largest single source of water in the Plan Area and underlies most of the Plan Area. The basin is pumped by the City of Solvang, ID-1, and by private agricultural and domestic users as indicated on Table 4.9-1 above. ID No. 1 historically operated eight (8) wells in the basin, drawing from the Paso Robles Formation. As of September 2008, only six (6) of the original wells were operational (with production limits). Two (2) additional wells were drilled to offset River Well production after the 2005 storm rendered the alluvial wells inoperable, and two (2) additional wells were under construction as of September 2008. According to the SYVCP, Agriculture accounts for about 75% of the water demand within the basin; the remaining demand is mostly from urban, industrial and other residential consumers.

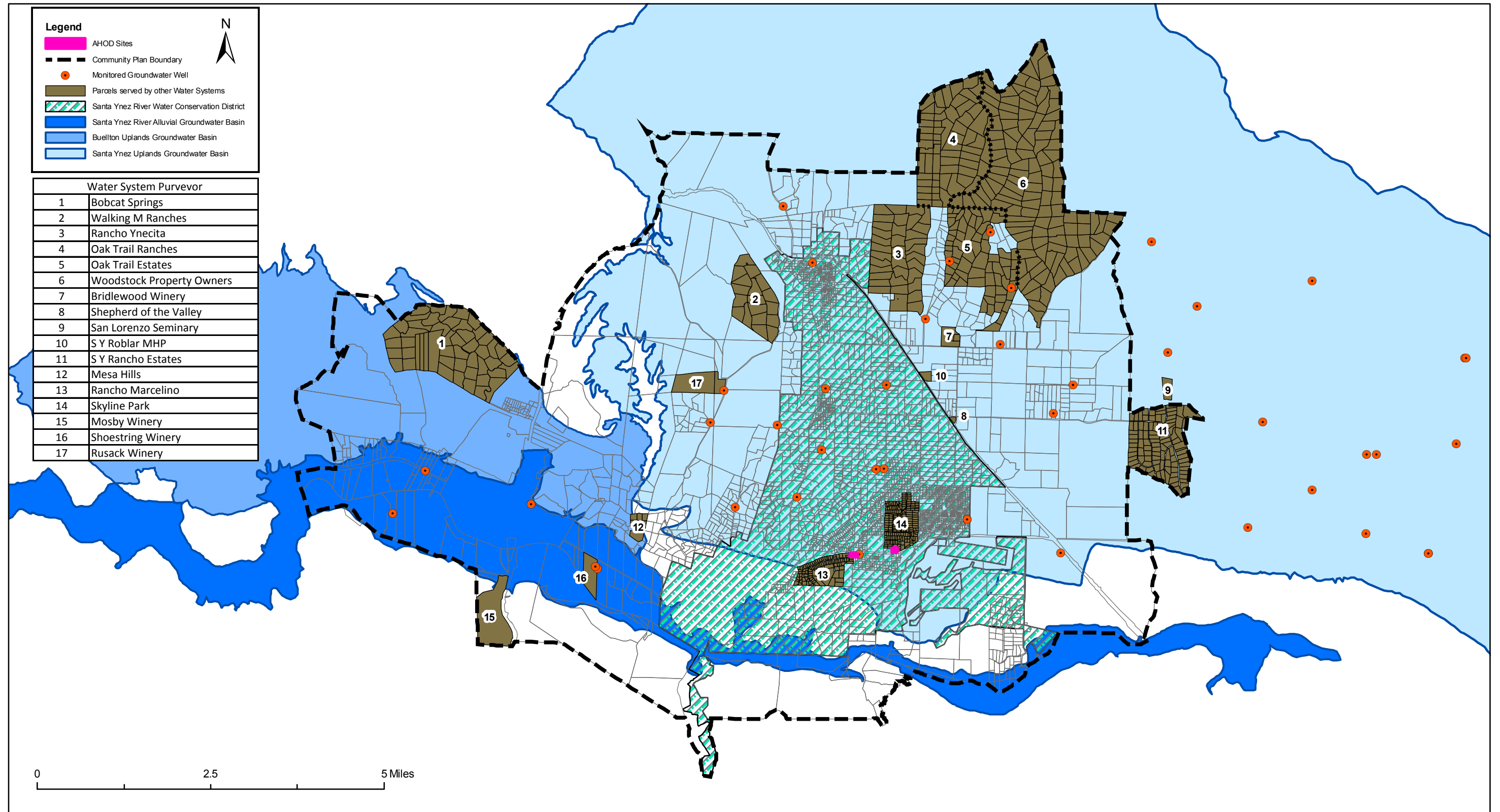
In the Executive Summary, the 2005 SB County Report references a 2001 study that concluded the Santa Ynez Uplands Basin was in a state of overdraft equivalent to 2,028 AFY at that time. Since that study was conducted, subsequent studies were performed by Ahlroth (2001) and Baca & Ahlroth (2002) that concluded the basin is not in a state of overdraft due to importation of water in order to reduce groundwater extraction and that groundwater storage may be at or above previous levels (prior to 2001). However, without those imported water supplies the demands on the groundwater basin would exceed supply, concluding that the County's 2001 water budget for the basin exceeds recharge by approximately 2000 AFY, as corroborated in a study by Hopkins (2002).

Buellton Uplands Basin: A portion of the Buellton Uplands Groundwater Basin is located in the southwest corner of the Plan Area. It extends westward from Ballard Canyon Road just east of Buellton to a topographic divide outside the Planning Area about one mile west of Drum Canyon Road. According to the SYVCP, Agriculture irrigation accounts for about 80% of the water demand within the basin; the remaining demand is mostly from urban consumers (including City of Buellton) and scattered farmsteads around the rural area.

The 2005 SB County Groundwater Report indicated this basin was in a state of surplus equivalent to 800 AFY. This surplus represents the average annual amount of groundwater from the Buellton Uplands Basin that discharges annually into the Santa Ynez River Riparian Basin.

Santa Ynez River Alluvial Basin: Groundwater in the Alluvial Basin is in direct hydraulic communication with river surface flow. The basin is pumped by the City of Solvang, ID-1, and private domestic and agricultural entities. This basin is not subject to overdraft because the average annual flow to the Santa Ynez River is greater than the volume of the basin and because the basin is replenished through water rights releases from Lake Cachuma.





Source: Santa Barbara County, 2006.

Groundwater Basins and
 Water Providers

Figure 4.9-1

However, reliability during storm events is a concern. Representatives of the Santa Ynez River Water Conservation District, Improvement District No. 1 noted that the alluvial wells are subject to damage or destruction in the event of high flows, when releases are being made from Bradbury Dam and flows are further increased by tributary flooding. 2005 storm events resulted to substantial damage to wells and transmission facilities.

Lake Cachuma: Currently five water purveyors take water from Lake Cachuma: (1) Montecito Water District, (2) the City of Santa Barbara, (3) Carpinteria Valley Water District, (4) Goleta Water District (collectively referred to as the Cachuma Member Units and represented by the Cachuma Conservation Release Board, or CCRB), and (5) ID-1. Within the Santa Ynez Valley, ID-1 is the only purveyor with contractual entitlement to Cachuma water.

ID-1's contractual share of Cachuma Project water entitlement is 10.31% which, on long-term average basis, equates to approximately 2,651 AFY. ID-1 obtains SWP water from the SWP pipeline instead of its Cachuma Project water in accordance with a water exchange agreement between ID-1 and CCRB.

Representatives of the Santa Ynez River Water Conservation District, Improvement District No. 1 noted that Lake Cachuma's annual operational yield is subject to hydrologic conditions, resource protection, siltation, water rights, environmental constraints, and other factors. In addition, the State Water Resources Control Board (SWRCB) is considering modifications to the Bureau of Reclamation's water right permits for the Cachuma Project in order to ensure protection of downstream water rights and public trust resources on the Santa Ynez River.

State Water Project: Within the Santa Ynez Valley, only ID-1 and the City of Buellton hold contractual allotments to SWP water. ID-1 has a state water allocation of 2,000 acre-feet per year (AFY) from the Central Coast Water Authority (CCWA). Pursuant to a Water Supply Agreement between ID-1 and the City of Solvang, Solvang purchased 75% of the ID-1 allotment, leaving ID-1 with an allotment of 500 AFY plus an additional 200 AFY of drought buffer from the State Water Project.

Long-term State Water Project reliability was recently addressed in an August, 2008, report from the Division of Water Resources (Final State Water Project Delivery Reliability Report for 2007), which concluded future deliveries from the Delta would average from 66-69% of maximum Table A amounts. This includes predicted impact from climate change and from recent legal action.

The Urban Water Management Plan and State Water Reliability Study were reviewed to estimate long-term reliability of the Cachuma Project and the State Water Project, respectively. The Urban Water Management Plan is intended to serve as an agency's long term water supply planning document. The Urban Water Management Plan is periodically updated to maintain accurate assessments of long-term reliability. The State Water Reliability Study takes into account the Table A amounts requested by agencies that may not have taken their full allotments in the past. Therefore, these references are considered more reliable for assessing long-term water supply than a review of historical deliveries, since those deliveries may have accommodated lower water demands in the past than those anticipated in the future.



Existing Water Supplies - Capacities and Deliveries

The following tables summarize the existing water supply for the Plan Area.

Table 4.9-2 Water Supply– Groundwater Basins

| Water Supply/ Source | Safe Yield (AFY) and Current Balance | “Current” Pumpage (AFY) ⁽⁵⁾ |
|-----------------------------|--|---|
| Santa Ynez Uplands Basin | 11,500 ^{(1),(2)} (Net*: 8,970 ^{(1),(2)} to 9,800 ⁽³⁾) | City of Solvang: 100 ID-1: 1,887 Private Ag and domestic (estimated): ~ 9,000 Total: ~ 10,987 |
| Buellton Uplands Basin | 3,740 ^{(1),(4)} (Net*: 2,800 ⁽³⁾ to 2,768 ^{(1),(4)} 800 AFY surplus ⁽¹⁾) | Gross: 2,599 Net: 1,932 |
| Santa Ynez River Basin | “Safe Yield” is not applicable ⁽¹⁾ . The basin is not subject to overdraft ^{(2),(4)} , although it is subject to shortages during drought periods ⁽³⁾ . | City of Solvang: 200 ID-1: 1638 ⁽⁶⁾ Private Ag and domestic (estimated): ~ 7,000 Total: ~ 8,838 |

Notes:

* From the 2005 SB County Groundwater Report: **Safe Yield** is defined as the maximum amount of water which can be withdrawn from a basin (or aquifer) on an average annual basis without inducing a long-term progressive drop in water level. **Net yield** is the Safe Yield value with the return flows subtracted. **Return flows** consist of water that has been percolated to the water table and thus is returned to the groundwater basin.

(1) 2005 SB County Groundwater Report, Appendix D – SB County Groundwater Basins Summary

(2) SB County Groundwater Thresholds Manual, Table 1 – Summary of Groundwater Basin Conditions

(3) 28th Annual Engineering and Survey Report on Water Supply Conditions of the SYRWCD (2005-2006), Table 18.

(4) Draft Santa Ynez Valley Community Plan, Section III.D – Water.

(5) Draft Santa Ynez Valley Community Plan, pp. 141 and 143, and revised based on information provided in a Comment letter to the EIR submitted by the City of Solvang, dated September 10, 2008.

(6) Draft Santa Ynez Valley Community Plan, pp. 141 and 143 noted that 2648 AFY as “current pumpage”. This was revised based on information provided in a comment letter to the EIR submitted by Herrema and DeFelice on behalf of ID No. 1, dated September 22, 2008.

Table 4.9-3 Water Supply– Surface & State Water

| Water Supply/Source | Contracted Allocation (AFY) | Long-Term Avg. Delivery (AFY) |
|--|------------------------------|-------------------------------|
| Lake Cachuma (ID-1 amount only) | 2,651 AFY ^{(1),(2)} | 1,750 ⁽³⁾ |
| State Water Project (ID-1 amount only) | 500 ^{(1),(2)} | 330 ^{(1),(2)} |

Notes:

(1) SYRWCD ID-1 Urban Water Management Plan 2000.

(2) Draft Santa Ynez Valley Community Plan, Section III.D – Water.

(3) As indicated above, ID-1 receives SWP water in exchange for its Cachuma allotment. The figure of 1,988 AFY assumes a SWP long-term average delivery of 75% x 2,651-AFY (contracted exchange allotment).

Water Demand Factors for Planning Area

The Santa Barbara County Groundwater Thresholds Manual (GTM) lists values for gross average water demand in acre feet per year (AFY) for various land use designations throughout the County. Using these duty factors, along with some minor adjustments where required, a project’s water demand can be calculated. These duty factors are listed below.



Table 4.9-4 1992 Water Duty Factors

| Land Use | Minimum size/unit | AFY/Unit | AFY/Acre |
|------------------------------------|-------------------------|----------|--------------|
| Residential Categories | | | |
| 1 DU/10 Ac | 10 acres | 1.15 | 0.12 |
| 1 DU/5 Ac | 5 acres | 0.98 | 0.20 |
| 1 DU/1-4 Ac | 1 – 4 acres | 0.82 | 0.82 - 0.205 |
| 1 DU/10,000-20,000 ft ² | 10,000 – 20,000 sq. ft. | 0.52 | 2.27 - 1.13 |
| 1 DU/2,180-7,000 ft ² | 2,180 – 7,000 sq. ft. | 0.14 | 2.79 - 0.87 |
| Commercial Categories | | | |
| Industrial | --- | --- | 1.64 |
| Institutional | --- | --- | 0.62 |
| Agricultural | --- | --- | 3.30 |

Residential Units for Affordable Housing Overlay (AHOD) Sites

The proposed AHOD sites are located within close proximity to State Highway Route 246 as shown on Figure 2-11a. The Affordable Housing Overlay and associated rezoning would result in an increase of up to 115 units on the four AHOD sites as described below. Based on a comparison to Figure 4.9-1, all four AHOD sites lie within the Santa Ynez Uplands Basin. As shown on this figure, the ID-1 boundary abuts each pair of sites, with three of the sites falling within ID-1 boundaries. The other site appears to fall within the boundaries of the Skyline Park water systems as described below.

AHOD Site A - Caesar’s Auto Detailing. This site is located at 3145 Highway 246 in Santa Ynez and encompasses approximately 2.27 acres. This site is currently developed with commercial and residential uses, including Caesar’s Auto Detailing, a car wash, and a single-family residence. Estimated water demand is 1.75 AFY. This site is served by the public water system *Skyline Park* as shown on Figure 4.9-1. All of the neighboring lots north and east of the site are within the *Skyline Park* boundaries.

AHOD Site B - Sanja Cota Motel. This site is located at 3099 Highway 246 in Santa Ynez, adjacent to and west of AHOD Site A, and encompasses approximately 1.04 acres. Estimated water demand is 0.64 AFY. This site is currently developed with the Sanja Cota Motor Lodge and associated parking and drive areas. This site is located within the service boundaries of ID-1 as shown on Figure 4.9-1.

AHOD Site C - Raleigh. This site is located at 2700 Highway 246 in Santa Ynez and encompasses approximately 2 acres. The western portion of the property is developed with a single family residence. The remainder of the property is undeveloped. Estimated water demand is 0.82 AFY. This site is served by ID No. 1 as shown on Figure 4.9-1. All of the neighboring lots south and west of the site are within the *Rancho Marcelino* boundaries.



AHOD Site D – Uyesaka. This site is located at 867 Sienna Way in Santa Ynez, adjacent to and east of AHOD Site C. The site encompasses approximately 2.2 acres. A single family residence is located on the southeast portion of the property. The remainder of the site is undeveloped. Estimated water demand is 0.82 AFY. This site is located within the service boundaries of ID-1 as shown on Figure 4.9-1.

Water Quality in the Santa Ynez Valley

Increased Nitrates and Impacts from Septic Systems

Groundwater quality degradation is an ongoing concern in the Santa Ynez Valley. Soil and groundwater conditions in the Los Olivos, Ballard, and Janin Acres areas are known to be severely constrained for septic effluent disposal. These areas are designated by the County as “Special Problem Areas” for wastewater disposal. In these developed areas with a high density of septic systems, septic effluent is a major contributor to the elevated nitrate concentration in groundwater.

The groundwater produced by the local mutual water company within Janin Acres (Rancho Marcelino Water and Service Company) currently exceeds the maximum contaminant level (MCL) for nitrates in drinking water.

ID-1, the sole public water purveyor in the Plan Area, has also idled a well that exceeded the MCL for nitrate.

Water Quality Impacts from Landfills

Two landfills are located in the Plan Area - the Santa Ynez Airport Landfill and the Ballard Canyon/Chalk Hill Road Landfill. Both landfills have landfill gas (LFG) collection systems in operation. These LFG systems address the volatile organic compounds (VOCs) that have been detected in down-gradient and side-gradient monitoring wells. There are no known water supply or irrigation wells directly down gradient from the Santa Ynez Airport Landfill; however potential soil or groundwater impacts to any water supply wells would be avoided by the monitoring of contamination plumes and water quality in accordance with local, state, and federal regulations. Installation of the LFG systems at the Ballard Canyon/Chalk Hill Road Landfill has resulted in an improvement in groundwater quality at the site (County of Santa Barbara Public Works Department Resource Recovery and Waste Management Division, January 2006).

Water Quality for AHOD Sites

All four AHOD sites are served by public water districts, as listed below:

- | | |
|-------------------------------------|------------------|
| • Site A - Caesar’s Auto Detailing: | Skyline Park |
| • Site B – Zanja Cota Motel | ID-1 |
| • Site C – Raleigh | Rancho Marcelino |
| • Site D – Uyesaka | ID-1 |

No water quality issues have been identified for sites A, B, or D.



AHOD Site C is served by the Rancho Marcelino Water and Service Company. This water provider has experienced some degree of water quality degradation (Feek, 2007). Two local wells provide the water supply. Sampling of the wells over the past 40 years shows a strong correlation between groundwater quality degradation and the installation and use of septic systems in the Janin Acres subdivision and neighboring areas to the north in Santa Ynez (Feek, 2007). According to Santa Barbara County Environmental Health Services, the nitrate concentrations found in the wells has increased from less than 10 mg/l to over 50 mg/l (exceeding the 45 mg/l drinking water standard) during this time period.

Because the AHOD site immediately to the east (Site D) has water supplied by ID-1, it may be feasible to obtain higher quality water from ID-1. Another option would be to continue being served by the Rancho Marcelino water system but have a provision for water treatment, if needed.

Water Supply for Townships

ID-1 employs a conjunctive use strategy by utilizing all of its supplies (including State, Surface, and Ground water) to provide reliable service to its constituents. Because all three townships in the Plan Area are within ID-1 service boundaries, continuing to serve these areas through ID-1 is the preferred approach for providing water.

Water Supply for Rural Areas Overlying Sub-basin

The preferred approach for providing water to both Rural and Inner-Rural development located within the ID-1 Service Boundary is through ID-1. Outside the ID-1 Service Area, the preferred approach is dependent on: (1) buildout location relative to the local groundwater basin; and (2) buildout location relative to existing small public water systems.

4.9.1.2 Wastewater Setting

Wastewater in the Santa Ynez Valley

Community Collection-Treatment-Disposal System Use

A portion of the domestic wastewater generated within the study area is collected in sewer systems and treated in wastewater treatment plants. All major permitted community wastewater treatment plants in the study area discharge via percolation, and are discussed below. There may be other small wastewater treatment systems for individual industrial, commercial, or residential facilities but they are small and no data is available to suggest they contribute to waste water problems thus they are not considered significant to regional planning efforts.

City of Solvang: The City of Solvang collects and treats wastewater from within the Solvang city limits and the Santa Ynez Community Service District (SYCSD) service boundary. The wastewater treatment plant is permitted to discharge 1.50 million gallons per day (mgd) on a monthly average basis. This discharge capacity is contractually allocated between the City of Solvang (1.21 mgd) and SYCSD (0.29 mgd). Wastewater receives secondary treatment and is



discharged into percolation ponds for groundwater recharge. Recent average monthly flow rates to the treatment plant are summarized below.

**Table 4.9-5 City of Solvang Wastewater Facilities
 Reported Flow Rates Compared to Permitted Capacity**

| Year | Minimum Monthly Flow (MGD) | Average Monthly Flow (MGD) | Maximum Monthly Flow (MGD) | Maximum as Percent of Permitted |
|------|----------------------------|----------------------------|----------------------------|---------------------------------|
| 2004 | 0.745 | 0.822 | 0.949 | 63% |
| 2005 | 0.127 | 0.451 | 0.698 | 47% |
| 2006 | 0.559 | 0.620 | 0.768 | 51% |

Source: Waste Discharge Requirements, City of Solvang, 10/19/2007

Santa Ynez Community Service District (SYCSD): The SYCSD provides wastewater collection for urban land uses in Santa Ynez Township as well as wastewater collection for the Chumash Reservation through contractual agreements. In February 2008, the SYCSD provided wastewater collection service to 679 residential connections and 185 commercial connections. The 2007 capacity assessment prepared by the SYCSD is summarized below.

Table 4.9-6 SYCSD Treatment Capacity Projections – January 2008

| Category | Gallons per day |
|---|-----------------|
| Solvang WWTP – Allocated to SYCSD | 290,000 |
| Capacity allocated to Chumash Reservation | -88,000 |
| 5% Reduction to Usable Capacity | -10,100 |
| January 2005 Purchase of Additional Capacity | <u>+10,000</u> |
| Actual District Capacity | 201,900 |
| Capacity Commitments – 2007 Average Annual Flow | <u>-115,000</u> |
| Currently Unused Capacity | 86,900 |
| Annexed but Unconnected Residential Lots (69 lots @ 215 gpd) | -14,835 |
| Annexed but Unconnected Commercial Lots (12 lots @ 1,050 gpd) | <u>-12,600</u> |
| Available Capacity | 59,465 |

Source: January 2008 Santa Ynez CSD Sewer Capacity Projections

The 2007 average flow rate for SYCSD was approximately 57% of the District’s actual capacity of 201,900 gallons per day.

In 2007 several segments of the SYCSD collection system were identified as problem areas, presumably because the existing pipes do not provide sufficient capacity for existing wastewater flows. (Cannon Associates, 2007)



Septic System Use

Parcels not served by these wastewater agencies utilize onsite wastewater systems and dispose of the treated wastewater via percolation. All septic systems have a disposal field. There are two types of disposal fields, leach fields and drywells. A leach field is shallow (less than five foot total depth) horizontal disposal of septic effluent. Leach fields maximize separation to groundwater and allow for evapotranspiration of effluent. A drywell is vertical disposal of septic effluent. Drywells are only allowed in areas where leach fields are determined to be infeasible and where drywells are not considered a threat to ground water quality. Some systems are old and do not meet current standards.

Standard criteria for siting and design are intended to prevent adverse impacts on groundwater from onsite sewage disposal systems. The most important factors are the provision of sufficient depth of unsaturated soil below the leach field (or drywell) where filtering and breakdown of wastewater constituents can take place. Without adequate separation distance to the water table, groundwater becomes vulnerable to contamination with pathogenic bacteria and viruses, as well as other wastewater constituents (e.g. nitrogen). Highly permeable soils (e.g. sands and gravels) also provide minimal treatment of the percolating wastewater and normally require greater separation distances to afford proper groundwater percolation. Additionally, where there is a high concentration or density of septic systems in a given area (i.e. small lot sizes), groundwater can be degraded from the accumulation of nitrate, chloride and other salts that are not filtered or otherwise removed to a significant extent by percolation through the soil. Adverse effects on groundwater quality from septic systems can show up in the form of degraded or contaminated well water supplies, or potentially as subsurface seepage into streams and rivers.

Septic systems can cause water quality problems if they are not properly sited or maintained. Many residents are unaware of the maintenance requirements of their septic systems. Most leach fields eventually fail when the ability of the soil to percolate is impaired due to use of a field over time and build up of "biomat," or bacterial growth, in the absorptive surfaces in the soil. When effluent from a septic tank can no longer percolate downward, the effluent will rise to the surface of the ground, a situation called "daylighting." Most drywells also eventually fail. A well-maintained, well sited disposal field typically lasts for 20 - 30 years. Services are normally planned to include expansion areas so that they will serve the property at least 75 years into the future for new projects.

Four areas within the study area have been identified in the 2003 Septic System Sanitary Survey for Santa Barbara County (Questa, 2003) as areas where existing septic system use is causing problems. Information from this report regarding these sites is summarized below.

Santa Ynez: Santa Ynez, while partially served by sewer, has over 770 parcels with private septic systems (including Janin Acres residential neighborhood). The parcel sizes vary from 1/2 acre to 4 acres and are on average 2.5 acres.



According to the County's Sanitary Survey, "The Santa Ynez area was given a High Problem Rating, due to the large number and relatively high density of systems, the highly restrictive soil-site conditions for a large portion of the area, age and lack of records for a large percentage of the systems, the moderate to high level of reported failures/problems in the area, and the threat of impacts to both surface and groundwater resources in the area." The Santa Ynez area excludes the township of Santa Ynez, as the township is on a public sewer system.

"Because of the site conditions and historic septic system practices that favor deep trench and drywell designs, combined with the clear threat and documented evidence of nitrate contamination of the water wells in the immediate vicinity, Janin Acres was given a High Problem Rating."

Los Olivos and Ballard: Los Olivos and Ballard are entirely served by septic systems. Los Olivos has over 340 residential and commercial parcels. Nearly two-thirds are less than ½ acre in size and a large number are smaller than ¼ acre. Ballard has over 120 parcels (nearly all) with private septic systems. The average lot size is 1.3 acres and most of the parcels are ½ to 1 acre in size.

According to the Sanitary Survey, "Los Olivos was given a High Problem Rating, due to the large number and very high density of systems, the lack of suitable soil and groundwater conditions for septic systems throughout a large portion of the town, the age and non-conforming design of the systems, and the existence and continuing threat of impacts to both surface and groundwater resources in the area."

"Despite the relatively good soil conditions for septic systems throughout most of the area, Ballard was given a Medium-High Problem Rating, due to the relatively large number and high density of systems, the age and lack of records for a large percentage of the systems, the moderate level of reported failures/problems in the area, and the existence and continuing threat of impacts to both surface and groundwater resources in the area."

Affordable Housing Overlay Sites (AHOD) Sites

The proposed AHOD sites are located within close proximity to Highway 246 where sewer lines currently exist (SB Co., 2007). None of the four AHOD sites appear to have sewer service provided by the Santa Ynez Community Services District. The SYCSD boundary abuts each pair of sites, but currently no sewer service exists on these properties. According to County Environmental Health Services staff (Jensen, 2008), the AHOD sites are proposed at a density where only a connection to the public sewer system could be approved.

AHOD Sites A. This 2.27 acre site is presumed to be served by a septic tank. The existing method of wastewater disposal (whether leachline and/or drywell) is unknown. This site lies within the SYCSD Sphere of Influence, but is not within the SYCSD boundary. None of the neighboring lots are inside the SYCSD boundary, but the lot immediately to the west (AHOD Site B) abuts the District boundary, as discussed below.

AHOD Site B. This 1.04 acre site is presumed to be served by a septic tank. The existing method of wastewater disposal (whether leachline and/or drywell) is unknown. This site lies



within the SYCSD Sphere of Influence, but is not within the SYCSD boundary. The lot immediately to the west is within the SYCSD boundary.

AHOD Site C. This 2.0 acre site is presumed to be served by a septic tank. The existing method of wastewater disposal (whether leachline and/or drywell) is unknown. This site lies within the City of Solvang Sphere of Influence, and is not within the SYCSD boundary. None of the neighboring lots are inside the SYCSD boundary, nor are served by the City of Solvang wastewater collection system, but the lot immediately to the east (AHOD Site D) abuts the District boundary, as discussed below.

AHOD Site D. This 1.04 acre site is presumed to be served by a septic tank. The existing method of wastewater disposal is by leachline (Questa, 2003). This site lies within the SYCSD Sphere of Influence, but is not within the SYCSD boundary. The lot immediately to the west is within the SYCSD boundary.

4.9.1.3 Regulatory Setting

Water Regulatory Setting

Regional Water Quality Control Board, Region 3, Central Coast

According to the Santa Ynez Draft Community Plan, Santa Barbara County falls within the jurisdiction of the Central Coast Regional Water Quality Control Board (Regional Board). The Regional Board has adopted policies and requirements pertaining to onsite systems that are contained within the Water Quality Control Plan for the Central Coast Basin (Basin Plan). The onsite systems element of the Basin Plan sets forth various objectives, guidelines, general principles and recommendations for the use of onsite systems that cover various topics related to siting, design construction, and operation, maintenance, and corrective/enforcement actions. The Regional Board is a state regulatory agency whose purpose is to protect the quality of surface and groundwater within the region for beneficial uses.

County Regulations: Special Problem Areas

According to the Santa Ynez Draft Community Plan, Santa Barbara County Ordinance No. 3665 provides for the delineation of “Special Problem Areas” for certain areas of the County where there are physical constraints affecting development and building activity. Development proposals within a Special Problem Area (SPA) require additional discretionary review by a committee of representatives of Division of County Roads, County Flood Control, County Planning and Development, County Health Services and County Fire Departments. This committee may impose any and all reasonable and necessary conditions to prevent to mitigate present or potential problems that might result from the development proposal, for the protection of property damage, public health and safety. Within the Santa Ynez Valley Community Plan Area, Los Olivos, Ballard Janin Acres, and east of Santa Ynez Township have been designated Special Problem Areas due to constraints and historic problems with the use of onsite sewage disposal systems. The township of Santa Ynez was formerly also a special problems area but recently had the designation removed.



Wastewater Regulatory Setting

State Regulations

Santa Barbara County falls within the jurisdiction of the Central Coast Regional Water Quality Control Board (Regional Board). The Regional Board has adopted policies and requirements pertaining to onsite systems that are contained within the Water Quality Control Plan for the Central Coast Basin (Basin Plan). The onsite systems element of the Basin Plan sets forth various objectives, guidelines, general principles and recommendations for the use of onsite systems that cover various topics related to siting, design, construction, and operation, maintenance, and corrective/enforcement actions. The Regional Board is a state regulatory agency whose purpose is to protect the quality of surface and ground water within the region for beneficial uses.

The on-site sewage disposal section of the Basin Plan is currently under revision (RWQCB, 2008). Recently adopted Basin Plan amendments (Resolution No. R3-2008-00005, May 9, 2008) will require local jurisdictions to develop and implement Onsite Wastewater Management Plans in urbanizing areas to investigate and mitigate long-term cumulative impacts resulting from continued use of individual, alternative, and community onsite wastewater systems. These Onsite Wastewater Management Plans will be required to include the following elements:

- *Survey and evaluation of existing onsite systems.*
- *Water quality (ground and surface water) monitoring program.*
- *Projections of onsite disposal system demand and determination of sites methods to best meet demand.*
- *Recommendations and requirements for existing onsite wastewater system inspection, monitoring, maintenance and repairs.*
- *Recommendations and requirements for new onsite wastewater systems.*
- *Alternative means of disposing of sewage in the event of disposal system failure and/or irreversible degradation from onsite disposal systems.*
- *Education and outreach program.*
- *Enforcement options.*
- *Septage management.*
- *Program administration, staffing, records keeping, installation and repairs tracking, and financing.*

In addition, the Basin Plan amendments will change *recommendations* regarding onsite systems to *requirements* by establishing criteria for new systems. These criteria will cover site suitability, system design, construction, maintenance, community system design, and local agencies.

These Basin Plan amendments are expected to become effective within 6 to 12 months, after review by the California Office of Administrative Law.

County Regulations

Through a memorandum of understanding with the Regional Board, on-site sewage disposal systems in Santa Barbara County are regulated by the County Public Health Department, Environment Health Services Division (EHS). Regulations for onsite systems are contained in the County Wastewater Ordinance which sets forth specific requirements related to: permitting and inspection of onsite systems; septic tank design and construction; drywell and disposal



field requirements; and servicing, inspection, reporting and upgrade requirements. Standards pertaining to system sizing and construction are contained in the California (Uniform) Plumbing Code. Additional requirements for onsite systems in Santa Barbara County may be adopted as part of Community Plans or as project-specific mitigation measures or conditions applied to development proposals lying within a designated Special Problem Area of the County.

Santa Barbara County EHS's Onsite Wastewater Treatment System (OWTS) Program is responsible for protecting public health and the environment from the potential adverse health and environmental impacts associated with on-site individual sewage disposal systems. This agency reviews septic system design proposals and septic system design criteria, and inspects new septic system construction and repair of existing systems to determine conformance with applicable codes. The applicable regulations are located in Chapter 7 of the California Plumbing Code. Environmental Health Services authority is derived from Appendix K which contains the standards for onsite wastewater treatment systems.

Santa Barbara County septic system requirements provide for the use of conventional systems including septic tanks for treatment and leachlines or drywells for disposal. Leachlines are the preferred method of disposal; drywells are permissible only where the use of leachlines is infeasible. Hollow "seepage pits" have been prohibited since 1999. A small number of alternative systems, including mounds and enhanced treatment systems, are allowed by the County and are often used in instances where specific soil or groundwater constraints exist.

Special Problem Areas

Santa Barbara County Ordinance No. 3665 provides for the delineation of "Special Problem Areas" for certain areas of the County where there are physical constraints affecting development and building activity. Development proposals within a Special Problem Area (SPA) require additional discretionary review by a committee of representatives of Division of County Roads, County Flood Control, County Planning and Development, County Health Services and County Fire Departments. This committee may impose any and all reasonable and necessary conditions to prevent or mitigate present or potential problems that might result from the development proposal, for the protection of property damage, public health and safety. Within the Santa Ynez Valley Community Plan Area, Los Olivos, Ballard, Janin Acres, and east of Santa Ynez Township have been designated Special Problem Areas due to constraints and historic problems with the use of onsite sewage disposal systems.

Santa Barbara County Recommendations

Existing problems with septic system use in the plan area were addressed in the 2003 Septic System Sanitary Survey for Santa Barbara County. This report made specific recommendations as follows:

General recommendations were made to (1) continue the water quality monitoring program developed and conducted during the sanitary survey (2) periodically review and evaluate the septic system information compiled in the County's permit and GIS database systems, (3) encourage training and education of septic system installers and pumping contractors, (4) amend the County Wastewater Ordinance to provide a mechanism for the issuance of operating permits for systems employing alternative or enhanced treatment and disposal technologies, or



for other special circumstances; (5) revise County regulations for drywells to require the installation of dual (200%) capacity fields in all new installations, and enhanced treatment systems in problematic or sensitive locations.

Specific recommendations were made for four focus areas within the Community Plan study area:

Santa Ynez (including Janin Acres)

Convert from septic systems to public sewers in areas where significant problems or threat to public health have been identified and where public sewers are reasonably available and represent the probable best long-term wastewater management approach for the area.

Los Olivos

Undertake feasibility and environmental studies to develop and implement a community wastewater facility for the town of Los Olivos. The study of alternatives for the township can and should consider various service area configurations, the possibility of maintaining septic systems in limited areas of town, the possibility of a joint community facility with Ballard, an interceptor sewer connection to the City of Solvang, and various locations and technologies for a community wastewater treatment and disposal facility.

Ballard

Develop and implement an Onsite Wastewater Management Plan (OWWMP). An OWWMP is a customized septic system plan for a specific area that could include, for example, a mix of different types of septic system designs, sewerage of certain areas, and special maintenance activities.

4.9.2 Impact Analysis

4.9.2.1 Methodology

Impact Determination

For both water and wastewater resources, the impacts of the proposed Plan are determined by comparing existing conditions to the 20-year projection under the Community Plan. Both full theoretical buildout scenarios (buildout per the existing Comprehensive Plan and buildout per the proposed SYVCP) are also described. The analysis of impacts is focused on 20-year buildout conditions under the proposed Community Plan.

Projecting Increases in Water Service Demand

Projecting Increases in Water Demand: 20 Year Buildout

The 20-year buildout condition includes the development of both residential and commercial units. Residential units categorized as primary and secondary land uses. The Primary Residential category is composed of residential units under both residential and agricultural land uses and zoning. The secondary residential land uses include agricultural employee,



Residential Second Unit (RSU), and C2/MU Residential. Commercial units consist of non-retail, retail, and industrial uses as shown below on Table 4.9-16.

Table 4.9-7 below tabulates the estimated increase in residential water demand for the 20-year buildout condition. The water duty factors summarized in Table 4.9-4 were used as the basis for estimating these water demands.

Table 4.9-7 Projected Increase in Residential Water Demand from Existing to 20 Year Buildout Condition

| Residential Land Use | Total Additional Housing Units (20 Year Buildout) ⁽¹⁾ | Water Duty Factor ⁽²⁾ AFY/Unit | Total Additional Water Demand (AFY) |
|--|--|---|-------------------------------------|
| Ag Employee | 24 | 0.14 | 3.4 |
| Primary Residential⁽³⁾ | | | |
| A-1-10 | 35 | 1.15 | 40 |
| A-1-20 | 44 | 1.15 | 51 |
| A-1-5 | 114 | 0.98 | 111 |
| AC ⁽⁴⁾ | 171 | 1.15 | 197 |
| Res-1.0 | 100 | 0.82 | 82 |
| Res-3.3 | 52 | 0.52 | 27 |
| Sub Total | 516 | | 508 |
| Residential Second Unit | 132 | 0.14 | 19 |
| C2/MU Residential | 149 | 0.14 | 21 |
| Total | 821 units | | 551 AFY |

Notes:

(1) Buildout Data Tables and Maps for SYVCP (Rincon email dated 3/21/08).

(2) From Table 4.9-4 (Groundwater Thresholds Manual – Water Duty Factors for Santa Ynez Valley)

(3) Primary Residential includes residential units under both residential and agricultural land uses. The 20-year buildout of 516 additional primary residential units is allocated to the selected major land uses shown based on the calculated percentage of potential buildout for each individual land use category when compared to the total potential buildout for these land use categories. The total potential buildout for these land use categories = 1,282 additional units at full theoretical buildout. The total potential buildout for all Primary Unit land uses under the SYVCP = 1,550 additional units. (Rincon email dated 1/22/08).

(4) AC land use is defined as Agricultural Commercial (40–320 or more acre minimum parcel size) in the County’s Comprehensive Plan Land Use Element. The water duty factor used above for this land use includes only residential water use for each unit. It does not include commercial agricultural water demand for irrigation of crops.

For consideration of impacts, the study area is divided into the townships of Santa Ynez, Ballard, and Los Olivos, the Inner-Rural area, and the Rural area. The three unincorporated townships of Santa Ynez, Los Olivos and Ballard together occupy less than 5% of the land area in the planning area but are home to more than 52% of the planning area’s unincorporated resident population. Projected water demand increases attributable to future housing development are allocated among the various regions of the study area as shown in Tables 4.9-8 and 4.9-9. Table 4.9-8 provides an evaluation of the existing population distribution within the Plan Area. Table 4.9-9 summarizes the analysis and allocation of 20-yr buildout units and associated water demands. Table 4.9-9 allocates the 20-year buildout units throughout the Plan Area by consideration of existing population distributions (per Table 4.9-8) and other assumptions as described in Notes 1 thru 5 of that table.



Table 4.9-8 Evaluation of Existing Population Distribution Throughout SYVCP Area for Use in Allocating Primary Residential and RSU Units

| SYVCP Area | Population | % of Current SYVCP Area Population | Notes |
|-------------------------|---------------|------------------------------------|--|
| Santa Ynez | 4,000 | 38% | Population per SYVCP, pg. 23 |
| Ballard | 500 | 5% | Population per SYVCP, pg. 25 |
| Los Olivos | 1,000 | 9% | Population per SYVCP, pg. 24 |
| Inner-Rural | 3,027 | 29% | Population calculated as follows: [# of proposed "Inner -rural" Ag/Residential parcels] ÷ [total number of proposed "Inner-Rural" + "Rural" Ag/Residential parcels] × [Population outside of town –ships]. |
| Rural | 2,050 | 19% | Total plan area population – Σ(township populations) – "Inner-rural" calculated population |
| Total SYVCP Area | 10,577 | 100% | |

Table 4.9-9 Projected Increase in Residential Water Demand from Existing to 20 Year Buildout Conditions – Allocated Throughout Plan Area

| Residential Land Use | Santa Ynez | Ballard | Los Olivos | Inner-Rural | Rural | Total |
|---|------------|-----------|------------|-------------|------------|------------|
| Ag Employee | | | | | | |
| Allocated Housing Units ⁽¹⁾ | -- | -- | -- | -- | 24 | 24 |
| WDF(AFY/Unit) | -- | -- | -- | -- | 0.14 | |
| Add'l Water Demand (AFY) | -- | -- | -- | -- | 3.4 | 3.4 |
| Primary Residential | | | | | | |
| Allocated Housing Units ⁽²⁾ | 158 | 12 | 54 | 174 | 118 | 516 |
| WDF(AFY/Unit) ⁽³⁾ | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | |
| Add'l Water Demand (AFY) | 156 | 12 | 53 | 171 | 116 | 508 |
| Residential Second Unit (RSU) | | | | | | |
| Allocated Housing Units ⁽⁴⁾ | 52 | 5 | 12 | 38 | 25 | 132 |
| WDF(AFY/Unit) | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | |
| Add'l Water Demand (AFY) | 7.5 | 0.7 | 1.7 | 5.5 | 3.6 | 19 |
| C2/MU Residential | | | | | | |
| Allocated Housing Units ⁽⁵⁾ | 78 | 5 | 42 | 24 | | 149 |
| WDF(AFY/Unit) | 0.14 | 0.14 | 0.14 | 0.14 | | |
| Add'l Water Demand (AFY) | 11.0 | 0.7 | 5.9 | 3.4 | | 21 |
| Allocated Housing Units -Total | 288 | 22 | 108 | 236 | 167 | 821 |
| Total Increased Residential Water Demand (AFY) | 174 | 13 | 61 | 180 | 123 | 551 |

(1) Agricultural employee housing will be located in rural areas only (e.g. outside of the townships and Inner-Rural areas)

(2) Residential units are allocated based on the number of additional primary units at theoretical buildout.

(3) The Primary Residential water duty factor used herein is an average value calculated as follows: WDF = Additional demand at 20 years for Primary Res Land Uses ÷ Additional units at 20 years = 508 ÷ 516 = 0.98 AFY/unit.

(4) Residential second units are allocated based on the number of residential second units at theoretical buildout.

(5) C2/MU residential units are allocated based on number of Secondary Residential Units at theoretical buildout.



Projected Commercial Flow Rates. Commercial water demand is based on the Santa Barbara County Groundwater Thresholds Manual (GTM) values for gross (i.e., per acre developed) average water demand in AFY as summarized in Table 4.9-4. The proposed plan projects future commercial development in terms of square feet of developed commercial property, and so additional calculations were performed to estimate water demands from commercial developments on an AFY basis, as shown below in Table 4.9-10.

Table 4.9-10 Projected Increase in Commercial Water Demand from Existing to 20 Years – Apportioned Among Townships and Rural Areas

| Township | Santa Ynez | Ballard | Los Olivos | Non-Township | Total | Calculation or Source |
|---|-------------|------------|-------------|--------------|-------------|--|
| Existing Conditions | | | | | | |
| Developed Area (SF) | 725,669 | 37,280 | 228,990 | 247,262 | 1,239,202 | SB County Buildout Tables |
| Developed Area (Acres) | 33.3 | 1.7 | 10.5 | 11.4 | 56.9 | Assumes 50% of each site is developed. |
| Water Demand (AFY) | 54.6 | 2.8 | 17.2 | 18.6 | 93.3 | acres developed * 1.64 AFY/Acre |
| Additional Demand at 20-Year Buildout Conditions | | | | | | |
| Additional Commercial Development (SF) | 288,243 | 17,232 | 120,539 | 129,319 | 555,334 | SB County Buildout Tables |
| Developed Area (Acre) | 13.2 | 0.8 | 5.5 | 5.9 | 25.5 | Assumes 50% of each site is developed. |
| Additional Water Demand (AFY) | 21.7 | 1.3 | 9.1 | 9.7 | 41.8 | acres developed * 1.64 AFY/Acre |

Projected increases in residential and commercial demands are combined below to estimate increases in water demands for the areas studied.

Table 4.9-11 Projected Increase in Residential and Commercial Water Demand from Existing to 20 Year Buildout Condition – Allocated in the Plan Area

| Land Use / Plan Area | Santa Ynez | Ballard | Los Olivos | Inner-Rural | Rural | Total |
|---|------------|-----------|------------|-------------|------------|------------|
| Residential Flow (AFY) | 174 | 13 | 61 | 180 | 123 | 551 |
| Commercial Flow (AFY) | 21.7 | 1.3 | 9.1 | 9.7 | | 42 |
| Total Increased Water Demand (AFY) | 196 | 14 | 70 | 190 | 123 | 593 |

Allocating Increased Demands by Source

Table 4.9-12 apportions the projected increase in water demand among the various water sources in the Plan Area, using the following assumptions:

- Increased demand from the three townships will be provided by ID-1.
- ID-1 will provide a mixture of water from the following sources under 20-year buildout conditions (ID-1 Urban Water Management plan, 2000):



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- 29% 2,651 AFY from Cachuma reservoir purchased from USBR
- 8% 700 AFY from State Water project via the CCWA pipeline
- 32% 2,966 AFY from Santa Ynez Uplands Groundwater Basin
- 32% 2,966 AFY “underflow” from the Santa Ynez River Riparian Basin

- The Inner-Rural area will obtain water as follows:
 - 30% will be served by ID-1 using the mixture shown above
 - 10% will draw water from the Buellton Uplands Basin
 - 60% will draw water from the Santa Ynez Uplands Basin

- The Rural area will obtain water from its underlying groundwater basin as follows:
 - 10% will draw water from the Santa Ynez River Riparian Basin
 - 20% will draw water from the Buellton Uplands Basin
 - 70% will draw water from the Santa Ynez Uplands Basin

Table 4.9-12 Projected Increase in Residential and Commercial Water Demand from Existing to 20 Years – Apportioned by Water Source and Plan Area

| Water Source/Plan Area | Santa Ynez | Ballard | Los Olivos | Inner-Rural | Rural | Total |
|---|------------|-----------|------------|-------------|------------|------------|
| Santa Ynez Uplands Basin ⁽¹⁾ (AFY) | 63 | 4.5 | 22 | 132 | 86 | 307 |
| Buellton Uplands Basin (AFY) | 0 | 0.0 | 0 | 19 | 12 | 31 |
| Santa Ynez River Riparian Basin (AFY) | 63 | 4.5 | 22 | 18 | 12 | 119 |
| Lake Cachuma | 56 | 4.0 | 20 | 16 | 11 | 107 |
| State Water Project | 15 | 1.1 | 5 | 4 | 3 | 28 |
| Total | 196 | 14 | 70 | 190 | 123 | 593 |

Projecting Increases in Water Demand - AHOD Sites

Existing and proposed water demands are shown below

Table 4.9-13 Existing Water Demand at AHOD Sites

| Site | Acres | Existing Land Use | Water Duty Factor ⁽¹⁾ (AFY/Unit) | Water Duty Factor ⁽¹⁾ (AFY/Acre) | Existing Demand (AFY) |
|-----------------------------|-------|---------------------------|---|---|-----------------------|
| A – Caesar’s Auto Detailing | 2.27 | Auto Detailing & Car Wash | -- | 1.64 ⁽²⁾ | 0.93 |
| | | 1 single-family residence | 0.82 | -- | 0.82 |
| B – Zanja Cota Motel | 1.04 | 1 Motel | -- | 0.62 | 0.64 |
| C – Raleigh | 2 | 1 single-family residence | 0.82 ⁽¹⁾ | -- | 0.82 |
| D – Uyesaka | 2.2 | 1 single-family residence | 0.82 ⁽¹⁾ | -- | 0.82 |
| Total | | | | | 4.04 |

Notes:

(1) See Table 4.9-4 for duty factors.

(2) Assumes 25% of the site is developed. (2.27 X 1.64 @ 25% = 0.93)



Table 4.9-14 Proposed Water Demand - AHOD Sites

| Site | Proposed Residential Units | Water Duty Factor ⁽¹⁾ (AFY/Unit) | Projected Demand (AFY) |
|-----------------------------|----------------------------|---|------------------------|
| A – Caesar’s Auto Detailing | 45 | 0.14 | 6.3 |
| B – Sanja Cota Motel | 20 | 0.14 | 2.8 |
| C – Raleigh | 24 | 0.14 | 3.4 |
| D – Uyesaka | 26 | 0.14 | 3.6 |
| Total | | | 16.1 |

Notes:
 (1) See Table 4.9-4 for duty factors.

Table 4.9-15 Proposed Increase in Water Demand - AHOD Sites

| Site | Existing Demand (AFY) | Projected Demand (AFY) | Increased Demand (AFY) |
|-----------------------------|-----------------------|------------------------|------------------------|
| A – Caesar’s Auto Detailing | 1.75 | 6.3 | 4.5 |
| B – Sanja Cota Motel | 0.82 | 2.8 | 2.0 |
| C – Raleigh | 0.64 | 3.4 | 2.8 |
| D – Uyesaka | 0.82 | 3.6 | 2.8 |
| Total | 4.04 | 16.1 | 12.1 |

Existing and Future Conditions Described

An estimate is provided of water demands under existing conditions. The future water demand is also described; this considers the demand under 20-year buildout under the proposed Community Plan. These estimated water demands are discussed in more detail below.

Estimated Water Demands under Existing Conditions - Discussion

Table 4.9-16 shows an estimated water demand of nearly 3,600 AFY for residential and commercial purposes in the plan area. This estimate appears reasonable when compared to Tables 4.9-2 and 4.9-3. This table shows ID-1 providing approximately 5,100 AFY (2,700 AFY from groundwater sources, plus a long term average of 2,080 from Lake Cachuma and the State Water Project) for residential, commercial, and agricultural uses. In 2005 ID-1 supplied 2,900 AF for agricultural uses (SYRWCD, ID-1, 2001). Therefore, under existing conditions ID-1 provides approximately 2,200 AFY for residential and commercial uses, a value equal to 60% of the estimated residential and commercial demand for the study area.



Table 4.9-16 Estimated Water Demand under Existing Conditions

| | Santa Ynez | Ballard | Los Olivos | Inner-Rural | Rural | Total |
|---|--------------|------------|------------|--------------|------------|--------------|
| <u>Residential Uses</u> | | | | | | |
| Primary Units ⁽¹⁾ | 1,280 | 320 | 160 | 968 | 656 | 3,384 |
| Duty Factor (AFY/Unit) | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | |
| Primary Demand | 1,254 | 314 | 157 | 949 | 643 | 3,316 |
| Secondary Units ⁽¹⁾ | 320 | 80 | 40 | 242 | 164 | 846 |
| Duty Factor (AFY/Unit) | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | |
| Secondary Demand | 45 | 11 | 6 | 34 | 23 | 118 |
| Residential Subtotal | 1,299 | 325 | 162 | 983 | 666 | 3,435 |
| <u>Commercial Uses</u> | | | | | | |
| Existing Commercial Development (SF) ⁽²⁾ | 725,669 | 37,280 | 228,990 | 247,262 | | 1,239,201 |
| Existing Site Area (acres) ⁽³⁾ | 33.3 | 1.7 | 10.5 | 11.4 | | 56.9 |
| Duty Factor (AFY/acre) | 1.64 | 2.64 | 3.64 | 4.64 | | 4.64 |
| Commercial Demand (AFY) | 55 | 5 | 38 | 53 | | 150 |
| Total Demand (AFY) | 1,354 | 329 | 201 | 1,035 | 666 | 3,585 |

Notes:

(1) See Table 4.9-6

(2) Per SB County Buildout Table 4 in Section 2.0 (Commercial Buildout Under the Proposed SYVCP) transmitted via email on March 21, 2008.

(3) Assumes 50% commercial development of each site.

**Table 4.9-17
 Summary of Existing and Proposed
 20-year Residential and Commercial Water Demand**

| Use | Existing Demand (AFY) | 20-year Increased Demand | 20-year Demand (AFY) |
|--------------------|-----------------------|--------------------------|----------------------|
| Residential | 3,435 | 551 | 3,986 |
| Commercial | 150 | 42 | 192 |
| Total (AFY) | 3,585 | 593 | 4,178 |



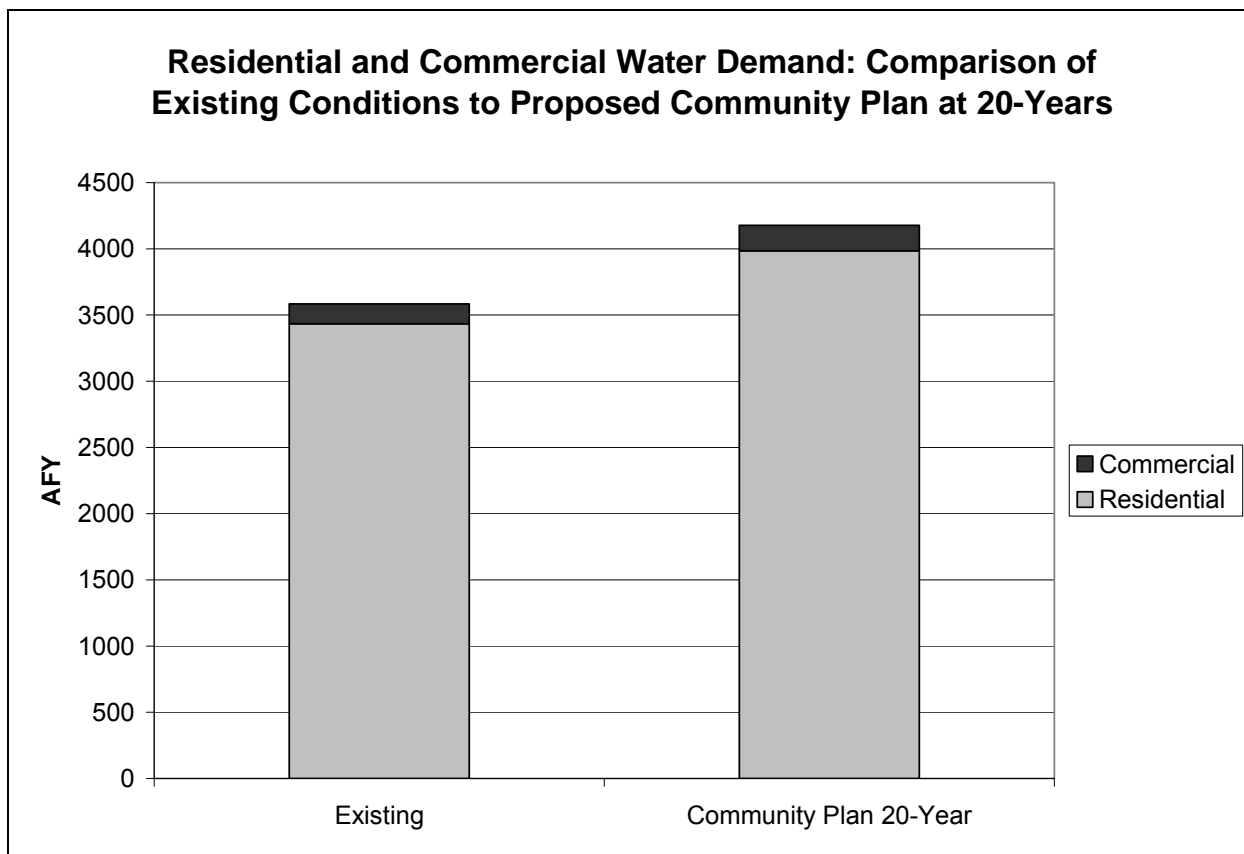


Figure 4.9-2 Summary of Existing and Projected Water Demands under the Proposed Community Plan

Projecting Increases in Wastewater Flow Rates

Information regarding the wastewater districts that serve the study area was compiled through personal communication and recent wastewater resources planning documents.

Published Estimates. Santa Ynez CSD uses a flow rate of 215 gallons per day for estimating the contribution each future residential connection, and a flow rate of 1,050 gallons per day for each future commercial connection.

Averaging Reported Flow Rates. The 2007 Waste Discharge Requirements (WDR) for the Solvang Wastewater Treatment Facilities indicate a peak monthly average flow rate of 0.949 MGD was reported in 2004. This WDR also noted that the plant serves 5,334 connections in Solvang and 685 connections in Santa Ynez. Assuming that there were somewhat fewer connections in 2004 than in 2007, then peak monthly average flow rates are at least 158 gallons per day (gpd) per connection.

The Santa Ynez CSD reported an average annual flow rate for 2007 to be 0.115 MGD. This value corresponds to an average flow rate of 168 gpd for 685 connections.

Projected Residential Flow Rates. Note that the estimated residential per-unit flow rate used by SYCSD for evaluating capacity in their conveyance and treatment facilities (215 gpd) is



approximately 30% higher than the average annual flow rate per connection in 2007 (168 gpd). Use of this increased value is understandable because flow rates that impact conveyance infrastructure will vary about the annual average flow rate. For example, during 2004, 2005, and 2006 the maximum average monthly flow rate to the Solvang Wastewater Treatment Facilities was between 10% and 50% higher than the average annual flow rate for that period. Therefore, an average annual wastewater flow rate of 215 gpd per residential connection is a conservative (i.e., reasonable worst case) assumption for planning purposes, and is used below.

**Table 4.9-18
 Projected Increase in Residential Wastewater Flows from Existing to 20 Years**

| Land Use | Total Additional Housing Units from Existing to 20 Years | Total Additional Wastewater Flow (gpd) |
|-------------------------|---|---|
| Ag Employee | 24 | 5,160 |
| Primary Residential | 516 | 110,940 |
| Residential Second Unit | 132 | 28,380 |
| C2/MU Residential | 149 | 32,040 |
| Total | 821 | 176,520 gpd |

These projected increases in residential wastewater flow rates were allocated to the various regions of the study area based on a number of assumptions, which are listed below.

1. *Future agricultural employee housing will be located in the agriculturally zoned rural areas of the Plan Area.*
2. *Future primary residential housing will be developed in areas zoned for agricultural and residential uses. For purposes of evaluating the 20-year impacts of the Proposed Community Plan, these housing units were allocated based on the growth in primary residential units between existing conditions and buildout under the Proposed Community Plan. Allocation of primary residential growth between Rural and Inner-Rural was based on the total number of parcels in each of these two categories under the Proposed Community Plan.*
3. *Future "Residential Secondary Unit" housing will be developed in areas zoned for agricultural and residential uses, and will be allocated in the same manner as primary housing units, as described above.*
4. *Future "Secondary Residential" housing units will be developed in commercially zoned areas of Santa Ynez, Ballard, and Los Olivos. The number of such units that will be developed in the next 20 years is based on the number of proposed units at buildout.*

For consideration of wastewater impacts, the study area is divided into the townships of Santa Ynez, Ballard, and Los Olivos, the Inner-Rural area, and the Rural area. Projected increased wastewater flows attributable to future housing development are allocated among the various regions of the study area as follows:



Table 4.9-19 Increased Residential Wastewater Flows from Existing to 20 Years under Proposed Community Plan

| Housing Type | Santa Ynez | Ballard | Los Olivos | Inner-Rural | Rural | Total |
|---|------------|---------|------------|----------------------|--------|---------|
| Ag Employee | | | | | | |
| Allocated Housing Units | | | | | 24 | 24 |
| Primary Residential | | | | | | |
| Allocation Basis | 371 | 28 | 126 | 684 ⁽¹⁾ | | |
| Allocated Housing Units | 158 | 12 | 54 | 174 | 118 | 516 |
| Residential Second Unit | | | | | | |
| Allocation Basis | 1,333 | 112 | 305 | 1,612 ⁽¹⁾ | | |
| Allocated Housing Units | 52 | 5 | 12 | 38 | 25 | 132 |
| C2/MU "Secondary Residential" | | | | | | |
| Allocation Basis | 306 | 21 | 165 | 94 | 0 | |
| Allocated Housing Units | 78 | 5 | 42 | 24 | 0 | 149 |
| Allocated Housing Units –Total | 288 | 22 | 108 | 236 | 167 | 821 |
| Unit Flow Rate (gpd/Unit) | 215 | 215 | 215 | 215 | 215 | 215 |
| Total Increased Residential Wastewater Flow (gpd) (2) | 61,900 | 4,700 | 23,200 | 50,700 | 35,900 | 176,400 |

Notes:

(1) Allocated based on 1,100 Inner-Rural and 745 Rural units zoned agricultural or residential.

(2) Assumes 215 gpd/housing unit.

(3) Wastewater flows are not broken out by treatment method because only flows in Santa Ynez are treated offsite.

Projected Commercial Flow Rates. A projected wastewater flow of 1,050 gpd per commercial connection is used in this analysis. This rate is used by the Santa Ynez CSD for their planning purposes. However, the proposed plan projects future commercial development in terms of square feet of developed commercial property, and so additional calculations were performed, using the buildout condition, to estimate wastewater flows from commercial developments on a “per-square-foot” basis, as shown below.

Table 4.9-20 Estimating the Commercial Wastewater Duty Factor

| Township | Santa Ynez | Los Olivos | Ballard | Total | Notes |
|--|------------|------------|---------|------------------|-------|
| Proposed Full Theoretical Buildout Conditions | | | | | |
| Retail (SF) | 1,276,047 | 485,876 | 127,771 | 1,889,694 | (1) |
| Non-Retail (SF) | 1,163,443 | 530,540 | 22,315 | 1,716,298 | (1) |
| Industrial (SF) | 173,081 | 1,655 | - | 174,736 | (1) |
| Total (SF) | 2,612,571 | 1,018,071 | 150,086 | 3,780,728 | |
| Parcels | 90 | 74 | 6 | 170 | |
| Development (SF) per Parcel | | | | 18,790 SF/parcel | (2) |
| Commercial Wastewater Duty Factor (gpd/SF) | | | | 0.056 gpd/SF | (3) |

Notes:

(1) Source: SB County 3-21-08; SYVCP Buildout Tables; Table 3, row 4.14.

(2) Source: SB County Draft SYVCP, Tables 4, 5, and 6.

(3) Based on 1,050 gpd per connection (or parcel).



To estimate the increase in wastewater flows from commercial sources the wastewater duty factor was then applied to projected commercial growth, as shown below.

**Table 4.9-21 Increased Commercial Wastewater Flows
 from Existing to 20 Years under the Proposed Community Plan**

| Township | Santa Ynez | Los Olivos | Ballard | Non-Township | Total | Notes |
|---|------------|------------|---------|--------------|-----------|-------|
| Commercial Development from Existing to Full Theoretical Buildout (SF) | 1,886,902 | 789,081 | 112,806 | 846,551 | 3,635,340 | (1) |
| Less C2/MU Development | 306,237 | 21,016 | 165,128 | 94,073 | 586,453 | (2) |
| Net Commercial (non-residential) Development from Existing to Buildout (SF) | 1,580,665 | 91,790 | 623,953 | 752,478 | 3,048,887 | (3) |
| Commercial Development from Existing to 20 Years (SF) | 287,907 | 16,719 | 113,649 | 137,059 | 555,334 | (4) |
| Additional Wastewater Flows from Commercial Development from Existing to 20 Years (gpd) | 16,100 | 900 | 6,400 | 7,700 | 31,100 | (5) |

- (1) Source: Santa Barbara County 3-21-08; Figure: Santa Ynez Community Plan Growth in Commercial Square Footage From Existing on the Ground to Buildout By Parcel and Proposed Land Use.
 (2) Based on 3-21-08 Figure for Secondary Residential Units Growth, average size being 1,000 SF.
 (4) 555,334 SF allocated on row immediately above. (555,334 SF Source: 3-21-08, Table 8, Row 4.32).
 (5) Based on 0.056 gpd/SF, rounded to the nearest 100 gpd.

These projected increases in flow rates are combined below to estimate increases in wastewater flows from all sources in the areas studied.

**Table 4.9-22 Increased Wastewater Flows
 from Existing to 20 Years under Proposed Community Plan**

| Area | Santa Ynez | Los Olivos | Ballard | Inner-Rural | Rural | Total |
|---------------------------------------|------------|------------|---------|-------------|--------|---------|
| Residential Flow (gpd) | 61,900 | 4,700 | 23,200 | 50,700 | 35,900 | 176,400 |
| Commercial Flow (gpd) | 16,100 | 900 | 6,400 | 7,700 | | 31,100 |
| Total Increased Wastewater Flow (gpd) | 58,000 | 30,000 | 5,700 | 58,400 | 35,900 | 207,500 |

Existing and Future Conditions Described

The proposed Community plan does not change the number of parcels or the areas contained in the component planning areas, as shown below.



Table 4.9-23 Parcels and Acres in Each Planning Area

| Planning Area | Existing Comprehensive Plan | | Proposed Community Plan | | Reference |
|---------------|-----------------------------|---------------|-------------------------|---------------|--------------------------|
| | Parcels | Acres | Parcels | Acres | |
| Santa Ynez | 1,528 | 1,541 | 1,528 | 1,541 | Sect. B.1.a Table 4 |
| Los Olivos | 404 | 288 | 404 | 288 | Sect B.1.b Table 5 |
| Ballard | 118 | 94 | 118 | 94 | Sect B.1.c Table 6 |
| Inner-Rural | 1,100 | 13,398 | 1,100 | 13,398 | Sect C.1.b Table 9 |
| Rural | 745 | 30,059 | 745 | 30,059 | (calc'd here) |
| Total | 3,901 | 45,380 | 3,901 | 45,380 | Sect. A.1 Table 2 |

Source: Santa Barbara County Draft SYVCP.

Estimated Wastewater Flow Rates under Existing Conditions

Total wastewater flows in the study area under existing conditions can be estimated, as shown below. Table 4.9-24 summarizes the estimate of wastewater flows under existing conditions.

Table 4.9-24 Estimated Wastewater Flows under Existing Conditions

| | Santa Ynez | Ballard | Los Olivos | Inner-Rural | Rural | Total |
|--|----------------|---------------|---------------|----------------|----------------|----------------|
| Residential Sources | | | | | | |
| Primary Units | 1280 | 160 | 320 | 968 | 656 | 3,384 |
| Secondary Units | 320 | 40 | 80 | 242 | 164 | 846 |
| Total Residential Units | 1,600 | 200 | 400 | 1,210 | 820 | 4230 |
| Duty Factor (gpd/Unit) | 215 | 215 | 215 | 215 | 215 | |
| Residential Wastewater Flow (gpd) | 344,000 | 43,000 | 86,000 | 260,000 | 176,000 | 909,000 |
| Commercial Sources | | | | | | |
| Commercial Development (SF) | 725,669 | 37,280 | 228,990 | 247,262 | | 1,239,201 |
| Duty Factor (gpd/SF) | 0.056 | 0.056 | 0.056 | 0.056 | 0.056 | |
| Commercial Wastewater (gpd) | 40,600 | 2,100 | 12,800 | 13,800 | | 69,300 |
| Total Wastewater Flows (gpd) | 384,600 | 45,100 | 98,800 | 273,800 | 176,000 | 978,300 |
| Flow to Sewer (gpd) | 115,000 | | | | | 115,000 |
| Flows to Onsite Systems (gpd) | 229,000 | 43,000 | 86,000 | 260,000 | 176,000 | 794,000 |

Comparison of Existing Conditions to Proposed Community Plan at 20 Years

Future wastewater flows are shown in Table 4.9-25, which also shows existing conditions as well as the contribution of the 20-year buildout of the Plan.



Table 4.9-25 Summary of Existing and Projected 20-year Wastewater Flows under the Proposed Community Plan

| Source | Existing Conditions Flow (gpd) | 20-year Increased Flow (gpd) | Community Plan 20-Year Flows (gpd) |
|--------------------|--------------------------------|------------------------------|------------------------------------|
| Residential | 909,000 | 176,400 | 1,085,000 |
| Commercial | 69,000 | 31,100 | 100,000 |
| Total (gpd) | 978,000 | 207,500 | 1,185,000 |

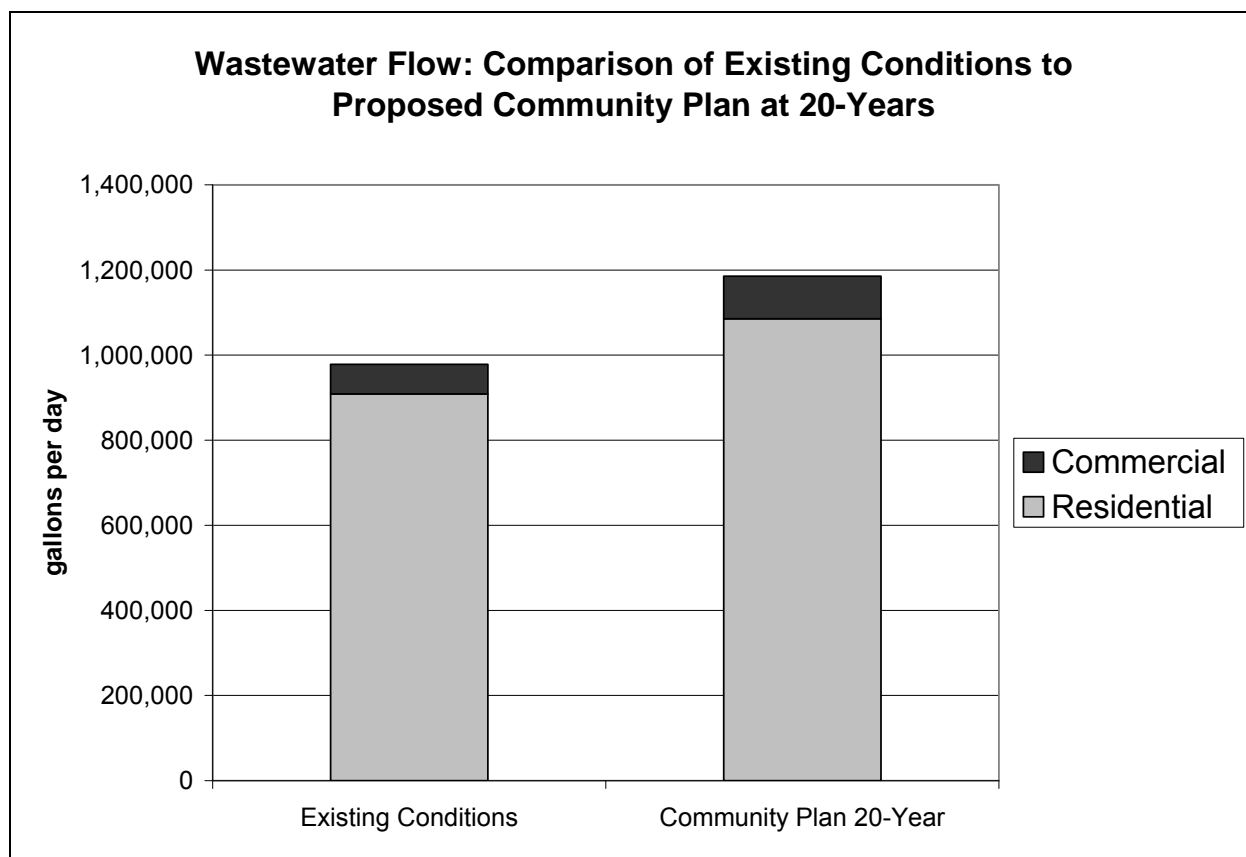


Figure 4.9-3 Summary of Existing and Projected 20-year Wastewater Flows under the Proposed Community Plan

4.9.2.2 Significance Thresholds

Water Resource Thresholds

The County of Santa Barbara Environmental Thresholds and Guidelines Manual sets thresholds of significance for water extraction from aquifers. “The Threshold of Significance is the point at which a project’s estimated contribution to the overuse of groundwater in an alluvial basin or



other aquifer is considered significantly adverse.” Significance Thresholds in the Plan Area are as follows:

Table 4.9-26 Significance Threshold and Projected Increase in Water Demand

| Aquifer | Significance Threshold | 20-year Buildout Increase in Demand |
|---------------------------------------|-------------------------------|--|
| Santa Ynez Uplands Basin | 61 AFY | 308 AFY |
| Buellton Uplands Basin (AFY) | 22 AFY | 31 AFY |
| Santa Ynez River Riparian Basin (AFY) | n/a* | 120 AFY |

**A threshold of significance applies only to overcommitted groundwater basins (i.e. those experiencing overdraft).*

Wastewater Resources Thresholds

Significance Thresholds for Collection and Treatment Facilities

The County of Santa Barbara Environmental Thresholds and Guidelines Manual does not include thresholds for wastewater. However, on a cumulative basis, the EPA and the Regional Water Quality Control Board have a threshold for overall facilities capacity. Because securing agreements and permits, and designing and constructing plant improvements is time-consuming and subject to a number of uncertainties, EPA and the RWQCB recommend a 75% capacity "check-point" threshold. This threshold requires a sewer district to establish a schedule for necessary treatment plant upgrades (or replacement) and to submit this schedule to both the EPA and the RWQCB at such time as the average daily flow exceeds 75% of the design capacity of the existing facilities.

Therefore, impacts to wastewater treatment and collection facilities would be significant if project-generated wastewater causes a treatment plant’s average daily flow to meet or exceed 75% of the plant’s design capacity.

Significance Thresholds for Disposal Systems

The County of Santa Barbara Environmental Thresholds and Guidelines Manual does not include thresholds for onsite wastewater treatment and disposal systems. However, the RWQCB Basin Plan contains water quality objectives for the protection of the beneficial uses of surface water bodies and groundwater. Basin-wide water quality objectives deal with a wide range of water quality constituents (bacteria, odors, radioactivity, organic constituents, drinking-water regulated constituents, etc.) and beneficial uses (municipal supply, agricultural supply, freshwater habitat, etc.)

Specific water quality objectives are listed for the Santa Ynez groundwater basin. These objectives are median values based on data averages and are based on preservation of existing quality or water quality enhancement believed attainable following control of point sources. These objectives are intended to serve as a water quality baseline for evaluating water quality management in the basin.



The following water quality objectives are listed for the Santa Ynez groundwater basin:

**Water Quality Objective for the Santa Ynez
Groundwater Basin (mg/L)**

| Constituent | Water Quality Objective (mg/L) |
|----------------------------|---------------------------------------|
| Dissolved Solids (TDS) | 600 |
| Chlorides (Cl) | 50 |
| Sulfate (SO ₄) | 10 |
| Boron (B) | 0.5 |
| Sodium (Na) | 20 |
| Nitrogen (mg/L as N) | 1 |

The Basin Plan also contains an anti-degradation policy so that existing quality shall be maintained wherever the existing quality of water is better than the quality of water established as objectives. Therefore, impacts from onsite wastewater treatment and collection facilities would be significant if project-generated wastewater causes a degradation of the water quality of surface water bodies or the underlying groundwater aquifer.

Project Impacts and Mitigation Measures

The impact analysis evaluates both programmatic impacts associated with the Plan Area as well as project-level impacts of the development of the AHOD sites. Programmatic impacts include 20-year buildout of the Plan area, proposed land use and zoning changes, policy changes, and programs proposed as part of the Santa Ynez Valley Community Plan. For illustrative purposes, the impacts of buildout with the proposed changes to land use and zoning are compared to the impacts of buildout under existing land use and zoning.

In addition, for the AHOD sites, potential site-specific impacts and mitigation measures are described and evaluated. The project level analysis for the AHOD sites is intended to serve as the project environmental review for possible future projects on these sites, therefore additional environmental review of any future development proposal on an AHOD site would not be required as long as the proposal is consistent with applicable Code requirements and restrictions.

Impact W/WW-1 Increased Demand from Existing Water Sources

Programmatic Impacts of the Plan

20-Year Buildout and Rezones

The 20-year buildout and rezoning actions under the proposed Community Plan would result in 516 new primary residential units, an increase of up to 115 units on the four AHOD sites, and 305 other additional units from new agricultural employee dwellings, residential second units, and secondary residential units. Additional commercial development under 20-year buildout



conditions would result in approximately 555,000 square feet of additional development. As existing primary residential and commercial development in the Plan area is 3,384 units and approximately 1,240,000 square feet, respectively, Plan buildout conditions would represent a substantial increase of about 15 percent in (primary) housing and about 45 percent in commercial development. This additional residential and non-residential development under 20-year buildout conditions would require additional water. In addition, the current infrastructure network for water delivery may not be adequate to serve all growth anticipated under the Plan. (NOP, Santa Barbara County, 2007)

Increased water demand in the study area would be met by a combination of public water systems, mutual water systems, and private wells. County Public Works staff will work with local water purveyors to assess water demand under Plan buildout conditions and identify the necessary infrastructure improvements to serve that demand. New sources of water or improved treatment facilities could be proposed (NOP, Santa Barbara County, 2007.) Under the proposed Plan, these water providers will continue to rely on the existing sources of water in the Plan Area. Therefore, impacts from increased demand would affect the three aquifers and two surface water sources in the Plan Area, as discussed below.

Impacts to Aquifers: As noted above in Table 4.9-12, increased demands on the Santa Ynez Uplands Basin and the Buellton Uplands Basin are projected to exceed the Significance Threshold for these aquifers and therefore *will cause a significant and unavoidable* (Class I) impact. Possible impacts to these aquifers from overuse include degradation of water quality, loss of well yield, well interference, and reduction in surface water that would otherwise be available to support biological resources. Individual projects would have a Class III impact to water supply (less than significant) if developed in accordance to the new plan and if they do not exceed the significance threshold.

Impacts to Surface Sources: Deliveries from the two surface water sources available are limited by existing and evolving regulations and agreements. These regulations and agreements mitigate the possible impact of increased demand to a level that is *less than significant* (Class III).

Mixed Use Overlay

Implementation of the proposed Mixed Use (MU-SYV) Overlay on the designated sites within the commercial cores of Los Olivos and Santa Ynez may result in increased water demands from properties subject to the overlay. Buildout under the proposed MU-SYV Overlay would contribute to the significant impact described for 20-year Plan buildout conditions above. Because the programmatic impacts of the plan to affected aquifers are significant, this plan component would have a *significant and unavoidable impact* (Class I) related to water supply. Individual projects would have a Class III impact (less than significant) to water supply if developed in accordance to the new plan and if they do not exceed the significance threshold.

Design Control Overlay

The Design Control (D) Overlay is proposed to protect scenic qualities, property values, and neighborhood character on certain key sites and along certain key corridors. The D Overlay would not accommodate new development that could not otherwise occur and would not,



therefore, have any direct or indirect effect relating to water demand. There would be *no impact* related to water supply.

Heritage Sites Overlay

Enhanced scrutiny of proposed subdivision of lands under the proposed HS Overlay would not accommodate new development that could not otherwise occur and would not, therefore, result in any contribution to water demand. Rather, application of the proposed HS Overlay may reduce subdivision of such lands, for requests deemed by the VPAC or equivalent entity to be inconsistent with the intent of the overlay. Impacts related to water supply would be less than significant (Class III).

Other Applicable Community Plan Policies, Programs, and Standards

No additional policies, programs or standards within the proposed Plan were identified that would result in potential water resources impacts.

Impacts Related to Development of AHOD Sites

The impacts related to development of the AHOD sites are included in the discussion of buildout impacts on water demand discussed above in Programmatic Impacts. The sites are served by purveyors that obtain their water from a variety of sources including wells in the Santa Ynez Upland Basin. For informational purposes, the project-specific impact of the development of each AHOD site is discussed below. Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated sites may result in increased water demand from the sites; however, increased demand from the full development of all four sites would not exceed the significance threshold for any of the aquifers involved.

Development of any of these sites with affordable housing would need to provide adequate fire suppression flow rates which may require upgrades to the local water distribution network. However, the review of fire suppression requirements would be done by the Fire Department at the time a specific application for development under the AH Overlay designation is submitted, and it is unknown and speculative whether any such upgrades would be needed.

Impact W/WW-1(A) Water Supply: Site A

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased water demand from the site. The site is served by the Skyline Park & Service Co., and any additional demand would be served by this purveyor. This water source obtains its water from groundwater wells that tap the Santa Ynez Upland Basin, and development of the Site A under the AHOD designation would incrementally increase demand on this source. However, increased demand from this site would not exceed the significance threshold and would therefore be *adverse but not significant* (Class III).



Impact W/WW -1(B) Water Supply: Site B

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased water demand from the site. The site is served by ID-1 and any additional demand would be served by this purveyor, which obtains its water from a variety of sources including wells in the Santa Ynez Upland Basin. Increased demand from this site would not exceed the significance threshold for any of the aquifers involved and would therefore be *adverse but not significant* (Class III).

Impact W/WW -1(C) Water Supply: Site C

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased water demand from the site. The site is served by the Rancho Marcelino Water & Service Co., and any additional demand would be served by this purveyor, which obtains its water from groundwater wells completed in the Santa Ynez Upland Basin. Increased demand from this site would not exceed the significance threshold and would therefore be *adverse but not significant* (Class III).

Impact W/WW -1(D) Water Supply: Site D

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased water demand from the site. The site is served by ID-1 and any additional demand would be served by this purveyor, which obtains its water from a variety of sources including wells in the Santa Ynez Upland Basin. Increased demand from this site would not exceed the significance threshold for any of the aquifers involved and would therefore be *adverse but not significant* (Class III).

Mitigation Measures

Programmatic Mitigation

The following policy, action, and development standard are included in the proposed Community Plan, and would reduce buildout and policy change impacts to groundwater resources and surface water bodies in the Valley, and within individual townships to the extent feasible. These policy, action, and development standard are mitigative in nature, and hence are discussed in this section.

Policy WAT-SYV-1: Development in the Santa Ynez Valley Planning Area shall incorporate appropriate water efficient design, technology and landscaping.

Action WAT-SYV-1.1: The County Water Agency shall work with the SYRWCD ID #1 to promote educational programs that encourage efficient water use.

DevStd WW-SYV-1.2: In cases where landscape plans are required for development, they shall include appropriate water-conserving features such as those listed in the Water Resources section of the County's Standard Conditions of Approval and Standard Mitigation Measures.



This development standard will encourage, and in some cases require, the implementation of water conservation measures. Therefore, implementation of these policy, action, and development standard would partially mitigate for the increased demands of new development. DevStd WW-SYV-1.2, however, is directed towards efficient water use in landscaping and does not address interior water savings measures, or measures to be used during grading activities. Accordingly, the following mitigation measure is required.

W/WW-1.1 Water Savings Measures. The Community Plan shall be revised to include the following new development standards:

DevStd WW-SYV-1.3: New construction and redevelopment projects in the Plan Area shall include appropriate interior water-conserving features such as those listed in the Water Resources section of the County's Standard Conditions of Approval and Standard Mitigation Measures.

DevStd WW-SYV-1.4: In the event that improvements are made to sewage treatment facilities within the Plan Area such that recycled water is available on a given construction site, projects disturbing an area of 0.5 acres or more shall use recycled water for dust suppression activities during grading and construction. Recycled water should not be used in or around crops for human consumption.

Plan Requirements and Timing: This policy would be included as a new policy into the Final Santa Ynez Valley Community Plan.

Monitoring: Planning and Development shall review and approve the policy prior to adoption of the Final Santa Ynez Valley Community Plan.

Additionally, to further mitigate the impact on future water demands, the following mitigation measure is required.

W/WW-1.2 New Water Sources and Facilities. The Community Plan shall be revised to include the following new policy and action:

Policy WAT-SYV-2: Existing and future water supply and quality shall continue to be periodically evaluated with specific measures identified to maintain adequate supply levels and quality, if deemed necessary.

Action WAT-SYV-2.1: The County will continue to work with local water purveyors to assess water demand under Plan buildout conditions and identify the necessary infrastructure improvements to serve that demand and/or identify new sources of water or improved treatment facilities that may be necessary to meet demand.

Plan Requirements and Timing: This policy would be included as a new policy into the Final Santa Ynez Valley Community Plan.

Monitoring: Planning and Development shall review and approve



the policy prior to adoption of the Final Santa Ynez Valley Community Plan.

This mitigation measure have the potential to lead to actions that mitigate the impact of increased demands on existing water resource infrastructure. It would also have the potential to lead to actions that could mitigate the impact of increased demands on existing water sources.

Mitigation Related to Development of AHOD Sites

While impacts related to water supply for the development of the AHOD Sites were determined to be less than significant, whether considered separately or together. Additionally, *DevStd WW-SYV-1.2* and mitigation measures W/WW-1.1 and W/WW-1.2, discussed above in programmatic mitigation, would apply to the development of the AHOD sites and would further reduce water demands generated by the proposed site development.

Significance After Mitigation: Programmatic Impacts of the Plan

The mitigative Plan policies and actions along with Mitigation Measures W/WW-1.1 and W/WW-1.2 may not be adequate to mitigate the increased demand to the affected aquifers. Development of new infrastructure and/or new water supplies may be economically or technically infeasible. Therefore, the impacts would remain *significant and unavoidable* (Class I).

Furthermore, the development of new water storage and treatment facilities could result in significant environmental impacts on biological, cultural, and aesthetic resources, and could also result in temporary construction-phase impacts on traffic and air quality. The type, size, and location of any new facilities are not known at this time, such that identification of such impacts would be speculative. The construction of new water storage and treatment facilities would be subject to additional environmental review.

Significance After Mitigation: Impacts Related to Development of AHOD Sites

The impacts to water sources associated with development of the AHOD sites would be *less than significant without mitigation* (Class III). Mitigation measures W/WW-1.1 and W/WW-1.2 would apply to any development of the AHOD sites under the AHOD designation to further reduce impacts to increased water demand for any future development of these sites.

Impact W/WW-2 Increased Wastewater Flows

Programmatic Impacts of the Plan

20-Year Buildout and Rezones

The 20-year buildout and rezoning actions under the proposed Community Plan would result in 516 new primary residential units, an increase of up to 115 units on the four AHOD sites, and 305 other additional units from new agricultural employee dwellings, residential second units,



and secondary residential units. Additional commercial development under 20-year buildout conditions would result in approximately 555,000 square feet of additional development. As existing primary residential and commercial development in the Plan area is 3,384 units and approximately 1,240,000 sf, respectively, Plan buildout conditions would represent a substantial increase of about 15 percent in (primary) housing and about 45 percent in commercial development. This additional residential and non-residential development under 20-year buildout conditions would produce additional wastewater.

Increased flow may also impact specific sewer lines in the community, resulting in the need for upgrades or new infrastructure. Wastewater flows in the study area will be treated by a combination of onsite systems and community treatment and disposal facilities. Increased disposal rates will result in increased flows of treated wastewater to the underlying groundwater resources.

Onsite Septic Systems: If these increased wastewater flows are disposed via onsite systems in areas where problems with onsite disposal have been documented, such development may potentially strain or exceed an area's effluent capacity and degrade or contaminate water supplies. While, additional Residential Second Units within on properties less than two acres that are within the County's Special Problem Areas would not be allowed unless they are served by a public sewer, other new or intensified development in these areas would increase septic treatment needs. Increased flows in Special Problem Areas (the communities of Ballard and Los Olivos, Janin Acres, and east of Santa Ynez Township) would exacerbate existing septic treatment problems and *would cause a significant and unavoidable* impact. These increased flows may also cause significant impacts in other areas of Santa Ynez Township, both within and outside the Santa Ynez CSD.

Increased flows occur in other portions of the Plan Areas served by onsite septic systems would be unlikely to result in significant capacity or groundwater contamination issues, but would depend on site characteristics, proximity of other onsite systems, system design, and system maintenance. However, insufficient information is available to make a reliable determination as to the significance of the impact. These areas are distributed throughout the study area.

Community Collection and Treatment: Regardless of whether the collection and treatment approaches are regional, local (within each Township), or a hybrid of the two, a community facility would be a significant mitigation measure for protecting groundwater quality and public health as compared with septic systems, particularly in the Special Problem Areas. Community facilities are described below as "mitigation measures", although these measures are also described and included in the draft Plan in anticipation of wastewater and groundwater impacts.

Within Santa Ynez Township, these increased flows are planned to be collected and treated in community treatment facilities. The flows may cause a significant impact if the increased total flow rate of the facility exceeds 75% of its design flow rate. Wastewater flow rates within Santa Ynez area under the proposed plan are projected to increase by 62,300 gallons per day within 20 years. If all this additional wastewater were to be collected by the Santa Ynez CSD, the average flow rate in the system would rise from 57% to 88% of the treatment system's design flow rate. Therefore, the proposed plan *may have significant impacts to the existing wastewater treatment*



system. Overall, under 20-year buildout conditions, impacts related to increased wastewater flows are *significant and unavoidable* (Class I). Individual projects would have a Class III impact (less than significant) to water supply if developed in accordance to the new plan and if they do not exceed the significance threshold.

Mixed Use Overlay

Implementation of the proposed Mixed Use (MU) Overlay on the designated sites within the commercial cores of Los Olivos and Santa Ynez may result in increased wastewater flows from properties subject to the overlay. The increase in wastewater flows in Santa Ynez related to the application of this overlay would occur in areas where wastewater collection and treatment is provided by the Santa Ynez CSD.

The increase in wastewater flows in Los Olivos related to the application of this overlay would occur in areas where wastewater treatment capacity from onsite septic systems has already been identified as a problem. While alternative or improved sewage service may become available to serve projects in Los Olivos, until and unless such capacity improvements are made, new development would have to comply with existing County and State onsite septic treatments requirements. Connecting new mixed use development in Los Olivos to conventional onsite wastewater systems (i.e., septic tanks and leach fields) would be prohibited by the Regional Water Quality Control Board.

Nonetheless, because of the contribution of this component of the Plan to increased wastewater flows as discussed above in 20-year buildout and rezones, impacts would be *significant and unavoidable*, impact (Class I). Individual projects would have a Class III impact (less than significant) to water supply if developed in accordance to the new plan and if they do not exceed the significance threshold.

Design Control Overlay

The Design Control (D) Overlay is proposed to protect scenic qualities, property values, and neighborhood character on certain key sites and along certain key corridors. The D Overlay would not accommodate new development that could not otherwise occur and would not, therefore, have any direct or indirect effect relating to wastewater flows. There would be *no impact* related to wastewater flows.

Heritage Sites Overlay

Enhanced scrutiny of proposed subdivision of lands under the proposed HS Overlay would not accommodate new development that could not otherwise occur and would not, therefore, result in any contribution to wastewater flows. Rather, application of the proposed HS Overlay would reduce subdivision of such lands, for requests deemed by the VPAC or equivalent entity to be inconsistent with the intent of the overlay. Impacts related to wastewater would be *less than significant* (Class III).



Other Applicable Community Plan Policies, Programs, and Standards

No additional policies, programs or standards within the proposed Plan were identified that would result in potential wastewater impacts.

Impacts Related to Development of AHOD Sites

The impacts related to development of the AHOD sites are included in the discussion of buildout impacts on increased wastewater flows discussed above in Programmatic Impacts. For informational purposes, the project-specific impact of the development of each AHOD site is discussed below.

Impact W/WW-2(A) Wastewater Flows: Site A

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased wastewater flows from the site. This site is located in the Santa Ynez area, an area where use of onsite septic systems may cause problems due to geology/soils/groundwater constraints; lot size/density; total number of systems in the area; the age and type of existing systems; a medium to high rate of problems; proximity/threat to surface water uses; proximity/threat to surface water uses; and evidence of water quality impacts. The site is located approximately 500 feet from Horizon Drive, an area with “severe septic system failure problems.” (Questa, 2003)

Under the proposed draft zoning ordinance amendment, one of the findings the decision-makers need to make before approving a development under the AH Overlay is that “the site is served by a municipal sanitary district.” Hence, developments under this overlay would require municipal sewer service. Sewer service would likely be provided by the Santa Ynez CSD if the site were developed with affordable housing. On its own, this site would result in an increase of flows to the Santa Ynez CSD that is less than 1% of existing flows. This would result in a *less than significant* (Class III) impact to existing systems.

Site A is adjacent to Highway 246 where a sewer force-main owned and operated by the Santa Ynez CSD is located. However, due to the material and age of the force main, Santa Ynez CSD staff has indicated that the preferred tie-in locations are gravity sewers located approximately 1000 feet to the east, or approximately 2,000 feet to the west (Martin, 2008). Additional study would be needed to determine the feasibility of either of these options. Development of a sewer connection to this site could also be combined with extension of sewer service to Horizon Drive. Either of these alternatives (service to Site A only or combined service to Horizon Drive) may require significant improvements to the collection system. However, the acceptability of any specific proposal for sewer service tie in would be done by Santa Ynez CSD at the time a specific application for development under the AH Overlay designation is submitted, and it is unknown and speculative whether any such upgrades would be needed and, therefore, what environmental impacts may result from such upgrades.



Impact W/WW-2(B) Wastewater Flows: Site B

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased wastewater flows from the site. This site is located in the Santa Ynez area, an area where use of onsite septic systems may cause problems due to geology/soils/groundwater constraints; lot size/density; total number of systems in the area; the age and type of existing systems; a medium to high rate of problems; proximity/threat to surface water uses; proximity/threat to surface water uses; and evidence of water quality impacts. The site is located approximately 600 feet from Horizon Drive, an area with “severe septic system failure problems.” (Questa, 2003)

As discussed above, developments under this overlay would require municipal sewer service. Site B is adjacent to Highway 246 where a sewer main owned and operated by the Santa Ynez CSD is located. Therefore, sewer service would likely be provided by the Santa Ynez CSD if the site were developed with affordable housing. On its own, this site would result in an increase of flows to the Santa Ynez CSD that is less than 1% of existing flows. This would result in a *less than significant* (Class III) impact to existing systems.

Site B is adjacent to Highway 246 where a sewer force-main owned and operated by the Santa Ynez CSD is located. However, due to the material and age of the force main, Santa Ynez CSD staff has indicated that the preferred tie-in locations are gravity sewers located approximately 1000 feet to the east, or approximately 2000 feet to the west. Additional study would be needed to determine the feasibility of either of these options. Development of a sewer connection to this site could also be combined with extension of sewer service to Horizon Drive. Either of these alternatives (service to Site B only or combined service to Horizon Drive) may require significant improvements to the collection system. However, the acceptability of any specific proposal for sewer service tie in would be determined by Santa Ynez CSD at the time a specific application for development under the AH Overlay designation is submitted, and it is unknown and speculative whether any such upgrades would be needed and, therefore, what environmental impacts may result from such upgrades.

Impact W/WW-2(C) Wastewater Flows: Site C

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased wastewater flows from the site. This site is located in the Santa Ynez area, an area where use of onsite septic systems may cause problems due to geology/soils/groundwater constraints; lot size/density; total number of systems in the area; the age and type of existing systems; a medium to high rate of problems; proximity/threat to surface water uses; proximity/threat to surface water uses; and evidence of water quality impacts. The site is located approximately 1,500 feet from Stadium Drive, an area with “severe septic system failure problems”, and adjacent to the Janin Acres subdivision, which is a designated Special Problems Area.¹

¹ *The use of deep trench and drywell systems for septic systems in Janin Acres is both a continuing threat to the continued viability of these [Rancho Santa Marcelino Water Company] wells and the probable main source of the documented nitrate contamination.” (Questa, 2003)*



As discussed above, developments under this overlay would require municipal sewer service. Site C is adjacent to Highway 246 where a gravity sewer main owned and operated by the Santa Ynez CSD is located. Therefore, sewer service would need to be provided by the Santa Ynez CSD as a requirement of any development under the AH Overlay. The cessation of use of an onsite septic system for this site would reduce potential impacts to increased wastewater flows to onsite septic systems but would increase flows to the Santa Ynez CSD treatment plant and infrastructure. On its own, this site would result in an increase of flows to the Santa Ynez CSD that is less than 1% of existing flows. This would result in a *less than significant* (Class III) impact to existing systems.

Impact W/WW-2(D) Wastewater Flows: Site D

Implementation of the proposed Affordable Housing Overlay District (AHOD) on the designated site may result in increased wastewater flows from the site. This site is located in the Santa Ynez area, an area where use of onsite septic systems may cause problems due to geology/soils/groundwater constraints; lot size/density; total number of systems in the area; the age and type of existing systems; a medium to high rate of problems; proximity/threat to surface water uses; proximity/threat to surface water uses; and evidence of water quality impacts. The site is located approximately 1,400 feet from Stadium Drive, an area with “severe septic system failure problems”, and within 400 feet of the Janin Acres Subdivision.

As discussed above, developments under this overlay would require municipal sewer service. Site D is adjacent to Highway 246 where a gravity sewer main owned and operated by the Santa Ynez CSD is located. Therefore, sewer service would need to be provided by the Santa Ynez CSD as a requirement of any development under the AH Overlay. As much of the site is lower than the adjacent highway, a sewer lift station would likely be required. This lift station could be located on the site or in or adjacent to the Highway 246 right-of-way. The cessation of use of an onsite septic system for this site would reduce potential impacts to increased wastewater flows to onsite septic systems, but would increase flows to the Santa Ynez CSD collection system and City of Solvang WWTF. On its own, this site would result in an increase of flows to the Santa Ynez CSD system and City of Solvang WWTF that is less than 1% of existing flows. This would result in a negligible (Class III) impact to existing systems.

Mitigation Measures

Programmatic Mitigation

The following policies and development standards are included in the proposed Community Plan, and would reduce buildout and policy change impacts to groundwater resources and surface water bodies in the Valley, and within individual townships to the extent feasible. These policies and development standards include more stringent maintenance requirements for existing septic systems, updated siting and technological requirements for new septic systems, and potential upgrades to existing sewer lines and wastewater treatment plants. These policies and standards are mitigative in nature, and hence are discussed in this section.

DevStd WW-SYV-1.1: Septic system installations shall only occur on parcels that are free of site characteristics listed under “VIII.D.3.i. Individual, Alternative and



Community Systems Prohibitions" in the Water Quality Control Plan for Central Coast Basin, Region 3 by the Regional Water Quality Control Board. Adherence to this standard and any other more restrictive applicable standards or zoning regulations as well as the County Wastewater Ordinance shall constitute a finding of consistency with Land Use Development Policy 4.

This development standard will prohibit the use of onsite disposal systems on sites that are unsuitable because of cracks or fractures, elevated clay content, short distance to groundwater, limited absorption area, flooding, slope, drainage to a reservoir, and several other criteria. This section of the Water Quality Control Plan specifically prohibits use of soil absorption systems in "any area where continued use of on-site systems constitutes a public health hazard, an existing or threatened condition of water pollution, or nuisance." Therefore, implementation of this Plan Development Standard would prohibit installation of new onsite disposal systems in problem areas identified in the 2003 Septic System Sanitary Survey or designated as a Special Problem Area (SPA) by Santa Barbara County (Los Olivos, Ballard, Janin Acres, and portions of Santa Ynez) and any additional areas where there is evidence of "an existing or threatened condition of water pollution." This Development Standard would mitigate for the increased flows from onsite systems by forcing new onsite systems to be located outside of known problem areas, provide advance treatment, or require service by sewer. Therefore, this Development Standard may also have the effect of increasing flow to existing wastewater facilities.

DevStd WW-SYV-2.3: Where feasible, measures to decrease the amount of nitrates filtering through soil to groundwater shall be required, including:

- 1. Shallow-rooted non-invasive plants (maximum root depth of four feet) shall be planted above all leach fields to encourage evapotranspiration of effluent and uptake of nitrates. Impervious surfaces, such as paved driveways, shall not be constructed above leach fields. If site constraints require a driveway to be located above a leach field in order to ensure reasonable use of property, turf block or other suitable pervious surface shall be used.*
- 2. For properties of 5 acres and less, advanced treatment for the removal of nitrates shall be required on septic systems utilizing drywells as the disposal field. Existing septic systems that utilize drywells that have failed, or that need to be modified, must also install advanced treatment.*

This Development Standard may partially mitigate the impact of nitrate contributions to groundwater from new on-site wastewater systems; however a portion of the nitrate-laden wastewater would be at soil depths deeper than those affected by such vegetation. The effectiveness of this Development Standard at mitigating the impact of nitrogen from new systems will also depend on several other factors including site feasibility, wastewater loading rates, and vegetation management.

This Development Standard may have the effect of reducing nitrate contributions to groundwater from existing on-site wastewater systems that utilize drywells that have failed, or that need to be modified.



DevStd WW-SYV-2.4: Septic systems and other potential sources of water pollution shall be a minimum of 100 feet from the geologic top of bank of tributary or creek banks (reference point as defined by Planning and Development and Environmental Health Services). Modifications to existing sources of potential water pollution shall meet this buffer to the maximum extent feasible.

This Development Standard will have the effect of reducing the probability of water quality impacts to surface waters from new on-site disposal systems. The effectiveness of this Development Standard at mitigating the impact of additional wastewater on surface water bodies will depend on several factors including site-specific hydrogeology.

This Development Standard may have the effect of reducing impacts to surface waters from existing on-site wastewater systems. The scale of this reduction depends on the number of existing systems affected, and the volume of wastewater involved.

DevStd WW-SYV-2.5: Development shall not be approved where individual or cumulative impacts of septic systems for new development would cause pollution of creeks unless this would preclude reasonable use of property.

This Development Standard could have the effect of reducing water quality impacts to surface waters from on-site disposal systems. However, the use of the term “unless this would preclude reasonable use of property” may render this Development Standard ineffective in some cases.

However, use of a septic system where individual or cumulative impacts cause pollution of a creek would be prohibited under various provisions of the Clean Water Act. Compliance with the Clean Water Act would be required, and hence the evaluation of proposed projects seeking relief from this development standard under the presumption of preclusion of reasonable property use would have to consider Clean Water Act requirements.

Policy WW-SYV-3: Annexation of inner-rural and rural area(s) to a sanitary district or extensions of sewer lines into inner-rural and rural area(s) as defined on the land use plan maps shall not be permitted unless required to prevent adverse impacts on an environmentally sensitive habitat or to protect public health.

Because this policy restricts the use of sewers, it would not mitigate impacts from increased wastewater flows from onsite systems.

Action WW-SYV-3.1: The County shall work cooperatively with the Regional Water Quality Control Board to pursue feasibility, fiscal, and environmental studies that evaluate the possibility of developing and implementing a community wastewater facility for the town of Los Olivos. In studying the community wastewater facility option, detailed consideration should also be given to alternative solutions, including, but not limited to: (1) defining areas of the town where septic system upgrades may continue to be feasible; (2) joint sewerage project with the town of Ballard; (3) various locations and technologies for collection, treatment and disposal and/or wastewater reuse for the town and (4) potential mandatory septic system maintenance programs. Community input



shall be sought regarding the content of the studies and potential alternative solutions to be considered.

This action may lead to subsequent actions, which may result in construction of a wastewater collection system or implementation of a septic system maintenance program for the towns of Los Olivos and Ballard. Therefore, this action would mitigate the impacts of increased wastewater flows, and reduce the impact of existing wastewater flows, from onsite systems in those areas.

Action WW-SYV-3.2: The County shall work cooperatively with the City of Solvang, Santa Ynez Community Service District, and Regional Water Quality Control Board to pursue feasibility, fiscal, and environmental studies to evaluate the possibility of implementing public sewage service and infrastructure in the Janin Acres subdivision and certain areas of West Santa Ynez (e.g., Stadium Drive/Horizon Drive), where feasible, and consistent with Comprehensive Plan policies. Community input shall be sought regarding the content of the studies and potential alternative solutions to be considered.

This action may lead to subsequent actions which may result in extension of the existing SYCSD wastewater collection system to areas where problems associated with onsite systems have been identified. Therefore, this action would mitigate the impacts of increased wastewater flows, and reduce the impact of existing wastewater flows, from onsite systems in those areas.

Action WW-SYV-3.3: The County shall work cooperatively with the Santa Ynez Community Service District and Regional Water Quality Control Board to pursue feasibility, fiscal, and environmental studies to evaluate the possibility of implementing an Onsite Wastewater Management Plan or other alternative solutions for the town of Ballard and portions of West Santa Ynez. Community input shall be sought regarding the content of the studies and potential alternative solutions to be considered.

This action may lead to subsequent actions which may result in implementation of an Onsite Wastewater Management Plan or other alternative solution for the town of Ballard and/or portions of West Santa Ynez. Therefore, this action may mitigate the impacts of increased wastewater flows, and reduce the impact of existing wastewater flows, from onsite systems in those areas.

In addition, the following mitigation measure is required to ensure that development of agricultural industrial structures do not negatively impact groundwater or surface water bodies:

W/WW-2.1 Agricultural Industrial Wastewater Treatment Structures. For developments in the Plan Area proposed under the Agricultural Industrial Overlay, the siting and design of onsite wastewater treatment and disposal facilities for agricultural industrial operations shall be protective of water resources.

Plan Requirements and Timing: The applicant shall submit engineering drawings of the onsite treatment system for review and



approval by Planning and Development and shall demonstrate compliance with Waste Discharge Requirements from the Regional Water Quality Control Board prior to approval of Land Use Permits. **Monitoring:** Planning and Development shall inspect prior to occupancy clearance.

Mitigation Related to Development of AHOD Sites

Each AHOD site would be required to be served by a municipal sanitary sewer before it could be developed under the affordable housing overlay. Additional mitigation measures or mitigative policies are not required. Two of the AHOD (Affordable Housing Overlay District) sites are located adjacent to a gravity sewer main owned and operated by SYCSD located in the Highway 246 right-of-way and would likely tie into the SYCSD system via direct connections to this mainline. The other two of the AHOD sites would also tie into the SYCSD system, although the location of the connection and the connection route are not known at this time. This requirement would mitigate the effects of increased wastewater flows from new onsite systems, but would increase flows to the existing SYCSD wastewater collection, treatment, and disposal system.

Significance After Mitigation: *Programmatic Impacts of the Plan*

The proposed Community Plan provides for population growth that would send additional wastewater flows to the SYCSD and to private septic systems. While the proposed mitigative policies, development standards, and actions of the proposed Plan may alleviate septic system problems in Special Problem Areas and other areas with septic treatment constraint, additional flowrates into the SYCSD may exceed the 75% capacity threshold leading to the need to develop additional treatment capacity. Additionally, the economic and political feasibility of other mitigative actions and development standards such as the development of more community wastewater facilities to serve the Plan Area is not known. Hence, impacts of the proposed Plan would remain Class I, *significant and unavoidable*.

Furthermore, the development of new wastewater infrastructure and treatment facilities in the Plan Area could result in significant environmental impacts on biological, cultural, and aesthetic resources, and could also result in temporary construction-phase impacts on traffic and air quality. The type, size, and location of any new facilities are not known at this time, such that identification of such impacts would be speculative. While, the construction of new wastewater facilities and infrastructure would be subject to additional environmental review, development of new wastewater systems could result in growth-inducing impacts, as discussed in Section 7.1.5, *Removal of an Impediment to Growth*.

Significance After Mitigation: *Impacts Related to Development of AHOD Sites*

The proposed plan requires the AHOD sites to connect to a municipal sewer. The total flow rate from all the AHOD sites combined would be a very small fraction of the existing flows to the SYCSD collection system. Therefore, the impact of the proposed Plan from increased flows would be Class III, *less than significant* without mitigation.



Impact W/WW-3 Cumulative Water Demand Impacts

The impacts of the Plan, including the 20-year Plan buildout, would be combined with cumulative impacts resulting from development contemplated in the Buellton and Solvang General Plans as well as buildout of the Chumash Reservation. General Plan buildout in the City of Buellton would result in approximately 1,814 additional residential units and 1,197,730 sf of new commercial development. Buildout under Solvang's General Plan will result in approximately 532 additional residential units, and 115,436 sf of new commercial development. An additional 72 residential units is estimated to accommodate 2030 growth projections on the Chumash Reservation.

In addition to growth from buildout projections of the Plan and similar buildout projections from other jurisdictions within the Santa Ynez Valley, a few projects, programs, or initiatives would have the potential for additional growth in the Valley: for example, the Santa Barbara County Uniform Rules Update, the Winery Permit Process Ordinance, the Bradley Lands Annexation project in Santa Maria, the Los Alamos Community Plan, and the UCSB Long Range Development Plan. The Santa Barbara County Uniform Rules Update is estimated to result in the development of approximately 78 additional residential units throughout the agricultural areas of the Santa Ynez Valley Area. The Winery Permit Process Ordinance that was adopted in 2004 may encourage the additional development of small, low intensity wineries in the Valley.

Increased Demand on Existing Water Sources

The 20-year buildout and rezoning actions under the proposed Community Plan, in combination with existing demands, would bring the cumulative residential and commercial demand for water to approximately 4,178 acre-feet per year. This cumulative water demand would be met by a combination of public water systems, mutual water systems, and private wells. Under the proposed Plan, these water providers will continue to rely on the existing sources of water in the Plan Area. Therefore, impacts from the cumulative demand would affect the three aquifers and two surface water sources in the Plan Area, as discussed below.

Impacts to Aquifers: As noted above in Table 4.9-12, increased demands on the Santa Ynez Uplands Basin and the Buellton Uplands Basin are projected to exceed the Significance Threshold for these aquifers and therefore *will cause a significant and unavoidable* (Class I) impact. Possible impacts to these aquifers from overuse include degradation of water quality, land subsidence, loss of well yield, well interference, and reduction in surface water available to support biological resources and agriculture.

Impacts to Surface Sources: Deliveries from the two surface water sources available are limited by existing and evolving regulations and agreements. Additional demand in the Study Area is not anticipated to be met by increased delivery of water from these surface sources, given that such sources are currently fully appropriated and closely managed by the California State Water Resources Control Board. These regulations and agreements therefore mitigate the possible impact of increased demand to a level that is *less than significant* (Class III).



Increased Flows in Existing Water Treatment and Distribution Systems

This cumulative impact of the proposed plan would be to increase flows in existing water treatment and distribution systems, as discussed below.

Impacts to Existing Infrastructure: The existing water treatment and distribution infrastructure systems are approaching the middle or end of their service lives, and may not be designed to accommodate the cumulative flows expected within the next 20 years. Significant improvements will be needed to accommodate water demands projected under the proposed plan, to replace aging components, and to meet current waterworks standards. The cumulative impact of the proposed Plan would therefore be *significant and unavoidable* (Class I).

Overall, the Plan's contribution to cumulative water demand impacts would be cumulatively *significant and unavoidable* (Class I).

Mitigation Measures

The Plan proposes a number of water saving measures which may reduce the expected increase in water demand. The plan also proposes policies and actions that may lead to the development of new water sources and improvements to the existing water treatment and distribution infrastructure. The mitigative Plan policies and actions along with Mitigation Measures W/WW-1.1 and W/WW-1.2 would apply to future development under the proposed Plan.

Significance After Mitigation

While the proposed mitigative policies, development standards, and actions of the proposed Plan, along with Mitigation Measures W/WW-1 and W/WW-2, may reduce the expected increase in water demand, it is not likely that these measures will be adequate to significantly mitigate the cumulative impacts of increased residential and commercial water demand throughout the Santa Ynez Valley Area. Therefore, cumulative impacts to water sources would remain *Class I, significant and unavoidable*.

The policies and actions of the proposed Plan may help plan for the significant infrastructure improvements that will be needed. However, it is not likely that planning and evaluation measures alone will be able to significantly mitigate the need for infrastructure system improvements to accommodate cumulative residential and commercial water demand. Therefore, cumulative impacts to water treatment and distribution systems would remain *Class I, significant and unavoidable*.

Impact W/WW-4 Cumulative Wastewater Impacts

Increased Wastewater Flows to Community Collection, Treatment, and Disposal Systems

New development associated with the 20-year buildout of the proposed Plan would result in increased flows to community collection, treatment, and disposal systems. The Plan's



cumulative contribution of additional flows is likely to cause flow rates to exceed 75% of design capacity for the SYCSD system, triggering the need for facility expansion. In the Los Olivos and Ballard areas, a new wastewater treatment facility may be required, and depending on its design, may also increase flows to the SYCSD. These impacts were found to result in significant and unavoidable impacts at the program level. The Solvang WWTF treats wastewater from the SYCSD service area as well as City limits, and also has a contractual obligation to provide 88,000 gpd of treatment capacity to the Chumash tribe². The tribe owns and uses a 200,000-gpd tertiary treatment facility in addition to this currently unused capacity in the City WWTF. Growth or development in the City, and possibly the Chumash community, would increase demands to the City WWTF. In addition, additional demands may be made on wastewater management resources for management of onsite systems or operation and maintenance of new wastewater collection and treatment facilities. Hence, the Plan's cumulative impacts to community collection, treatment, and disposal systems due to increased wastewater flows would be cumulatively *significant and unavoidable* (Class I).

Increased Wastewater Flows to Onsite Systems

Similarly, the Plan, under 20-year buildout conditions, was determined to have a significant and unavoidable impact from wastewater flows to onsite septic systems particularly in the Special Problem Areas and the western portion of Santa Ynez. While similar problems have not been reported elsewhere in the Santa Ynez Valley area³, development under 20-year Plan buildout would lead to increased septic system use and associated water quality impacts. Therefore, the Plan's contribution to cumulative impacts associated with increased flows to onsite wastewater systems would be cumulatively *significant and unavoidable* (Class I).

Mitigation Measures

Increased Wastewater Flows to Community Collection, Treatment, and Disposal Systems

The Plan proposes to work cooperatively with the City of Solvang, Santa Ynez Community Services District and the Regional Water Quality Control Board to prepare a study to evaluate the possibility of developing and implementing a community wastewater facility or other alternative solution for the town of Los Olivos (and possibly the town of Ballard), and to study the possibility of implementing public sewage service and infrastructure in the Janin Acres subdivision and certain areas of West Santa Ynez (e.g., Stadium Drive/Horizon Drive).

Increased Wastewater Flows from Onsite Systems

The proposed Plan includes policies and development standards that may mitigate impacts from these cumulative flows. The Plan requires more restrictive siting criteria, additional measures to enhance nutrient uptake, setbacks from surface water bodies, and prohibits onsite

² The Santa Ynez Band of Chumash Indians has recently constructed a 200,000 gallon capacity centralized wastewater treatment plant on the Reservation. The plant serves the needs of the hotel, casino, health clinic, and existing residential development on the reservation. Per the license agreement with the EPA, the plant is owned by the Chumash, but maintained and operated by the SYCSD to help insure protection of nearby resources and the Santa Ynez River. The agreement also includes a cross connection to the SYCSD to provide further protection.

³ The cities of Solvang and Buellton and the Chumash reservation are served by municipal sewer service.



systems where new development would cause pollution of surface waters (unless this restriction would preclude reasonable use of the property.) The plan proposes studying alternatives for implementing wastewater collection systems and/or mandatory septic system management programs in areas where onsite systems have been implicated in causing problems.

Significance After Mitigation

Flow rates into the SYCSD collection system and City of Solvang WWTF would increase with the development of some of these actions and standards, and flowrates into the City of Solvang WWTF would also increase from buildout within City limits. The 75% capacity threshold leading to the need to develop additional treatment capacity would likely be triggered, and no mitigation is available to significantly reduce flowrates. Cumulative impacts from increased wastewater flows to community collection, treatment, and disposal systems remain *Class I, significant and unavoidable*.

The proposed mitigative policies, development standards, and actions of the proposed Plan may alleviate some of the water quality impacts in Special Problem Areas and other areas with septic treatment constraints. Furthermore, current or increased sewer connection and annexation fees collected by sewer service providers could be used to develop additional treatment capacity or make repairs or improvements to infrastructure. However, it is not known to what extent improvements to onsite systems will be implemented in problem areas, and therefore to what extent the impacts will be mitigated. Therefore, cumulative impacts associated with increased flows to onsite wastewater systems would be *significant and unavoidable* (Class I).