Appendix E:
Drainage and Surface Water Quality

E-1: Expanded Drainage and Surface Water Quality Analysis

Expanded Drainage and Surface Water Quality Analysis
Prepared for the
Draft EIR
County of San Luis Obispo
Los Osos Wastewater Project

Prepared by:

Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602
714.508.4100

Michael Brandman Associates

November 14, 2008

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PREFACE

This Expanded Drainage and Surface Water Quality Analysis corresponds to Section 5.3, Drainage and Surface Water Quality, of the Los Osos Wastewater Project Draft EIR. For readability and reference, the numbering system for headings and page numbers in the following environmental analysis uses the same section number as that used in the Draft EIR.

This Expanded Drainage and Surface Water Quality Analysis of the Los Osos Wastewater Project Draft EIR is a summary of a compendium of knowledge regarding drainage and surface water issues statewide, as well as those issues applicable to San Luis Obispo County and specifically Los Osos. Since the body of knowledge is considerable and contained in numerous appendices, it would be difficult to present it entirely in this document and in a manner that is easily understood by the reader. In order to aid the reader in locating background information, this section is formatted to facilitate the retrieval of appended information by presenting the reader with references that address the issue at hand.

5.3 - DRAINAGE AND SURFACE WATER QUALITY

5.3.1 - Introduction

This section provides an evaluation of surface water hydrology, drainage, flooding, and water quality. It also addresses certain utility service items that pertain to wastewater quality. These two subjects are listed separately on CEQA checklists. The following is a list of information reviewed in preparation of this section.

1. San Luis Obispo County General Plan. January 2007. San Luis Obispo County Department of Planning and Building. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

2. County of San Luis Obispo Coastal Plan Policies Summary. July 2004. County of San Luis Obispo. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

3. County of San Luis Obispo Coastal Zone Land Use Ordinance. January 2006. Title 23 of the San Luis Obispo County Code. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

4. County of San Luis Obispo Coastal Plan Policies. April 2007. County of San Luis Obispo. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

5. Preliminary Engineering Evaluation, Los Osos/Baywood Park Community Drainage Project for San Luis County Service Area No. 9J. December 1997. Engineering Development Associates, San Luis Obispo, California. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

6. Estero Area Plan Update. November 2004. San Luis Obispo County Department of Planning & Building. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

7. Central Coast Water Quality Control Plan (Basin Plan). Central Coast Regional Water Quality Control Board. This document is available for review at

www.swrcb.ca.gov/rwqcb3/publications_forms/publications/basin_plan/bp_pdfversion/index.shtml.

8. National Pollutant Discharge Elimination System Phase II Stormwater Management Program. June 2006. County of San Luis Obispo, Department of Public Works. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

9. Technical Memorandum: Partially Mixed Facultative Pond Options. March 2008. San Luis Obispo County Los Osos Wastewater Project Development. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

10. Technical Memorandum: Out of Town Conveyance - Final Draft. March 2008. San Luis Obispo County Los Osos Wastewater Project Development. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

11. Technical Memorandum: Imported Water - Final Draft. March 2008. San Luis Obispo County Los Osos Wastewater Project Development. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

12. Public Improvement Standards, 2007 Update; Section 5: Storm Drainage. November 2007. San Luis Obispo County Department of Public Works. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

13. Final Environmental Impact Report for the Los Osos Community Services District Wastewater Facilities Project. March, 2001. Crawford Multari & Clark Associates. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

14. Final Report of the Independent Advisory Panel on Reviewing the Los Osos Wastewater Management Plan Update. December 4, 2006. National Water Research Institute. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

15. California Stormwater Quality Association Construction Handbook. 2004. This information is available for review at www.cabmphandbooks.com/Construction.asp.

16. Los Osos Wastewater Project Development Technical Memorandum: Effluent Reuse and Disposal Alternatives Final Draft. April 2008. San Luis Obispo County. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

17. Los Osos Wastewater Project Development Technical Memorandum: Septage Receiving Station Option Final Draft. April 2008. San Luis Obispo County. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

18. Los Osos Community Services District Urban Water Management Plan. December 2000. John L. Wallace & Associates; Maddaus Water Management. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

19. Storm Water Pollution Prevention Plan (SWPPP) Los Osos Wastewater Project. Whitaker Contractors, Inc. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

20. The Care and Feeding of your Septic System: The Homeowner Guide to On-Site Sewage Disposal Systems. December 2005. San Luis Obispo County Planning and Building Department. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

21. Private Sewage System Disposal. July 2006. San Luis Obispo County Department of Planning and Building. This document is not contained in the EIR appendices, but is instead available for review at the San Luis Obispo County Department of Planning and Building. Pursuant to CEQA Guidelines Section 15150, this document is hereby incorporated by reference.

22. Delineation of Jurisdictional Waters and Wetlands. June 2008. Michael Brandman Associates. This information can be located in Appendix G-2 of the Draft EIR Appendices.

5.3.2 - Environmental Setting

Regional and Local Conditions

Regional and Local Physical Setting

The four proposed projects each comprise three distinct functions: raw wastewater collection, wastewater treatment, and conveyance of treated effluent for disposal. Generally, these facilities are all located within, south of, and along the eastern outskirts of the community of Los Osos, San Luis Obispo County.

Regional and Local Hydrology and Drainage

Los Osos/Baywood Park is located within the Central California Coastal Watershed (identified as United States Geological Survey [USGS] Region 18, Accounting Unit 180600, which has an area of approximately 11,400 square miles). Nine watersheds cross San Luis Obispo County. The community of Los Osos-Baywood Park (together with the communities of San Luis Obispo, Cambria, and Oceano) is located within the Central Coastal watershed (USGS Hydrological Unit 18060006). Within this watershed, Los Osos Creek is located within the Estero Bay Sub-Hydrologic Unit number 310.

Annual average precipitation in the region (Morro Bay Fire Department, 1971-2000; source Natural Resources Conservation Service [NRCS]) is 17.62 inches, with average highs of 3.69 inches in February, and 0.03 inches in July. Rainfall increases further inland (the average annual precipitation at the San Luis Obispo Polytech rain gauge, located approximately 7 miles to the southeast, is 23.3 inches).

Creeks within and immediately surrounding the community of Los Osos either flow generally southwest from the Santa Lucia Mountains (these include hills that comprise Park Ridge, such as Hollister Peak), or northward from the Irish Hills.

The two principal waterways that drain the community of Los Osos are Los Osos Creek and Warden Creek. Los Osos Creek and Warden Creek drainages form a confluence at a wetland less than a mile southeast of Morro Bay, within the Los Osos Valley.

Los Osos Creek becomes perennial at the plains north of the Irish Hills and generally flows south to north into Morro Bay. The principal tributary to Los Osos Creek is Warden Creek, which originates in the Los Osos Valley to the north of Irish Hills and flows slightly east of the community of Los Osos in a generally southeast to northwest direction. A portion of Warden Creek forms a low-lying saturated wetland (Warden Creek wetland). Both Warden Creek and this included wetland receive waters from small drainages that flow northeast to southwest which are fed by numerous drainages located in the Morros, the hills that align inland from the southeast end of Park Ridge.

Areas within and adjacent to the community of Los Osos that are subject to flooding from 100-year storm events are limited to areas immediately adjacent to Warden Creek and Los Osos Creek. The

only exception to this is Warden Creek wetland, which can entirely fill with standing water during and after such events.

Drainage which does not flow into Morro Bay and which does not evaporate is left to infiltrate into underlying aquifers. Near Morro Bay, these include a shallower aquifer located from approximately 30 feet to 200 feet below ground level, and a deeper aquifer located approximately 500 feet below the earth's surface.

Chorro Creek is a perennial creek located north of Park Ridge, and outside of the sites of the proposed projects. The creek flows east to west before cutting south between the Black Hill and Cerro Cabrillo to enter Morro Bay within the Morro Bay State Park.

Regional and Local Stormwater Runoff

The definition of stormwater runoff is the amount of surface water produced from melted snow and precipitation, measured after evaporation, evapotranspiration, and percolation.

Flow paths of stormwater within the region are identified with separate geographical Hydrologic Sub-units. Within this Estero Bay unit, stormwater runoff originates from the communities of Oceano (Arroyo Grande Creek and Meadow Creek), the urban fringe of San Luis Obispo (Perfumo Creek, Froom Creek, San Luis Obispo Creek), Cambria (Santa Rosa Creek, Monterey Bay National Marine Sanctuary), and the community of Los Osos (Los Osos Creek, Morro Bay).

Regional and Local Surface Water Quality

The 2006 Clean Water Act (CWA) Section 303(d) list of limited water quality segments lists 114 water bodies as being impaired within the Central Coastal Regional Water Quality Control Board (RWQCB) region (Region 3). Thirteen of these water bodies are located within the Estero Bay Sub-Hydrologic Unit, ten of which are impaired due to pathogens. The source of pathogens within Chorro Creek is identified as agriculture; the source for Morro Bay is identified as upland range grazing, septage disposal, and urban runoff. Although livestock can be a source of pathogens, the Central Coast RWQCB principally describes the sources as unidentified.

The majority of streams (both ephemeral and perennial) located near the proposed projects are identified features on USGS topographical maps (Morro Bay South [1978]; San Luis Obispo [1979]). Some of these are also listed on the CWA 2006 Section 303(d) list of limited water segments. This list includes waters that are impaired by specific pollutants, and for which a Total Maximum Daily Load (TMDL) of pollutants allowed to enter each specific water must be established, and consequently not surpassed. A list of all Section 303(d) listed waters within the vicinity of the proposed projects is included in Table 5.3-1.

Los Osos Creek is identified on the Section 303(d) list as being impaired for fecal coliform, although the source is listed as unknown (pathogens, including bacteria and viruses, are often associated with agricultural activities). The waters are also impaired for low dissolved oxygen, nitrate, nutrients, and

sedimentation/siltation. Warden Creek is impaired for fecal coliform and low dissolved oxygen, although the sources of these pollutants are listed as unknown.

Table 5.3-1: Clean Water Act Section 303(d) List of Limited Water Segments (Impaired Waters) in Los Osos Region

Water Body	Calwater Watershed Number	Pollutant / Stressor	Potential Sources
Los Osos Creek	31023012	Fecal Coliform	Unknown
		Low Dissolved Oxygen	Agriculture Natural Sources Pasture Grazing - Riparian and/or Upland Urban Runoff/Storm Sewers
		Nitrate	Source Unknown
		Nutrients	Agricultural Return Flows Agriculture Agriculture - storm runoff Irrigated Crop Production
		Sedimentation/Siltation	Agriculture Agricultural storm runoff Channel Erosion Channelization Dredging Erosion/Siltation Habitat Modification Hydromodification Irrigated Crop Production Natural Sources Nonpoint Sources Range Grazing - Riparian and/or Upland Removal of Riparian Vegetation Streambank Modification/Destabilization
Warden Creek	31023010	Fecal Coliform	Source Unknown
		Low Dissolved Oxygen	Source Unknown
San Luisito Creek	31022011	Fecal Coliform	Source Unknown
Chorro Creek	31022012	Fecal Coliform	Source Unknown
		Nutrients	Agriculture Agricultural - storm runoff Irrigated Crop Production Municipal Point Sources
		Oxygen, Dissolved	Source Unknown
		Sedimentation/Siltation	Agriculture Agriculture-storm runoff Channel Erosion Channelization

Table 5.3-1 (Cont.): Clean Water Act Section 303(d) List of Limited Water Segments (Impaired Waters) in Los Osos Region

Water Body	Calwater Watershed Number	Pollutant / Stressor	Potential Sources
			Construction/Land Development Erosion/Siltation Golf course activities Hydromodification Irrigated Crop Production Natural Sources Nonpoint Sources Range Grazing - Riparian and/or Upland Range Grazing - Upland Resource Extraction Road Construction Streambank Modification/Destabilization
San Bernardo Creek	31022012	Fecal Coliform	Source Unknown
Morro Bay	31022012	Oxygen, Dissolved	Source Unknown
		Pathogens	Natural Sources Nonpoint Source Range Grazing-Upland Septage Disposal Urban Runoff/Storm Sewers
		Sedimentation/Siltation	Agriculture Channel Erosion Channelization Construction/Land Development Irrigated Crop Production Resource Extraction
Source: Clean Water Act Section 303(d) List of Limited Water Segments.			

Regional and Local Flooding

Los Osos Creek drains the Los Osos Watershed and the southern half of the Morro Bay watershed, and enters Morro Bay via the Morro Bay Salt Marsh. The principal natural hydrologic components associated with the drainage include Eto Lake, Warden Creek, and Warden Lake.

Areas subject to flooding during 100-year events are limited to areas immediately adjacent to creek channels, as well as the Morro Bay estuary. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) identify regions that are adjacent to Los Osos Creek and Warden Creek within and adjacent to the community of Los Osos as being inundated during a 100-year storm.

From its headwaters in Clark Valley, located south of the project site, the Los Osos Creek drainage includes an approximate 200- to 300-foot wide 100-year flood hazard width until it reaches just south

of Eto Lake (Exhibit 5.3-1). At that point the 100-year flood area significantly expands to a width of approximately 2,500 feet along a plain of agricultural land.

The 100-year flood hazard area associated with Warden Creek is generally wider from where it begins (approximately 300 to 500 feet wide) and increases within the Warden Creek wetland to a width of approximately 1,200 feet.

FEMA FIRM maps (panels 06079C1029F, 06079C1033F, 06079C1040F, and 06079C1045F) identify these two creeks as being in regions designated as Zone A, which are areas with a 1 percent annual chance of flooding and a 26 percent chance of flooding over the life of a 30-year mortgage.

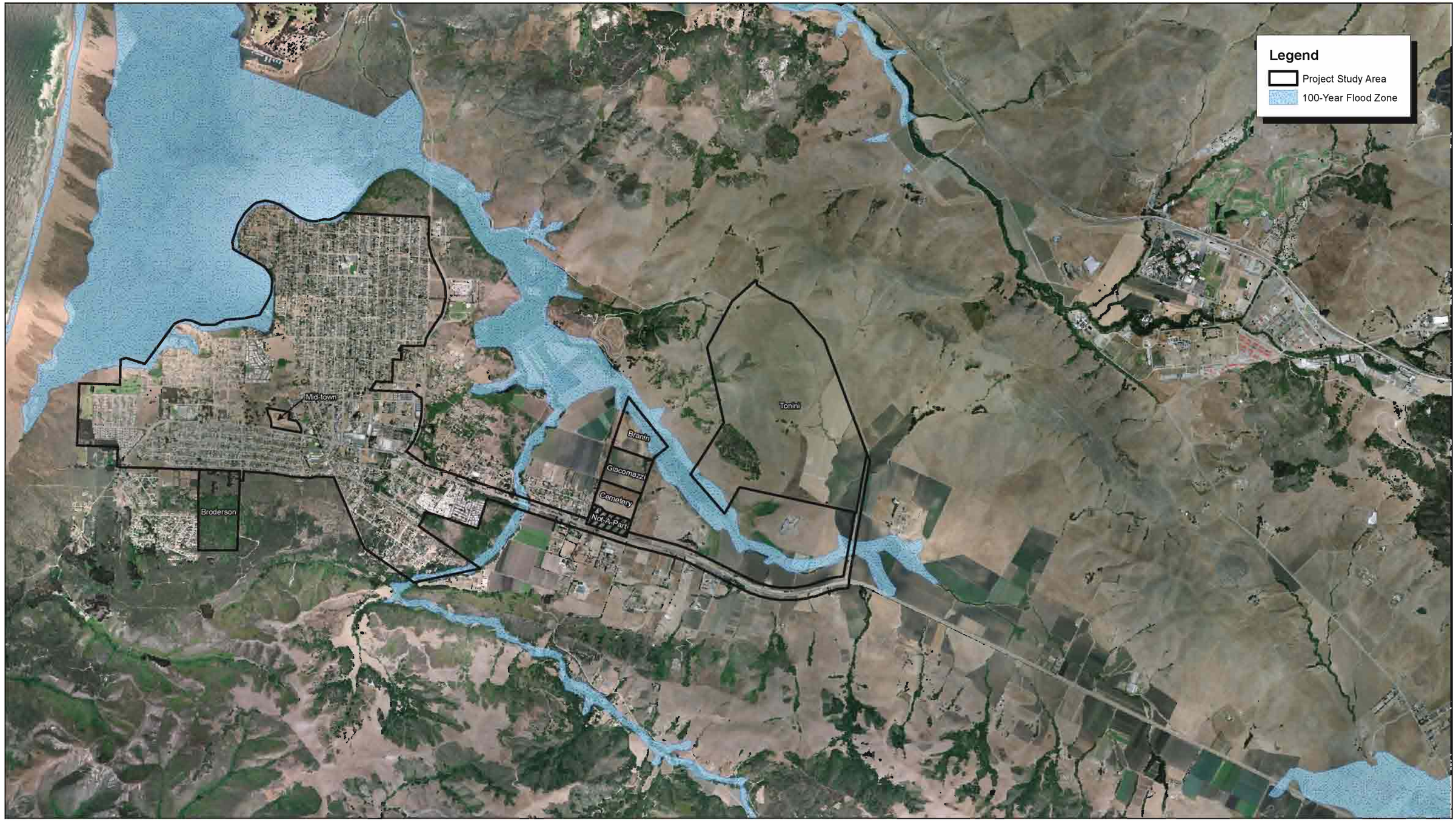
Flooding within the region generally impacts roads (including Clark Valley Road and a small portion of the Los Osos Valley Road), as well wooded and agricultural land. Few residential areas are located within, or adjacent to, the flood zone.

Regions outside of the flood hazard area are designated as Zone X, and are located outside of the plain with a 1-percent annual chance of flooding (Exhibit 5.3-1).

The April 1998 County study titled Preliminary Engineering Evaluation, Los Osos/Baywood Park Community Drainage Project, County Service Area No. 9J, concluded that natural sumps cause much of the flooding in Los Osos. Sumps are small pits into which water can drain and which lack outlets. These exist in the region adjacent to Morro Bay due to the sandy soil. Whereas sumps usually drain naturally, that capacity has been reduced during the past two decades due to the diminished number of permeable regions caused by development, and due to rising groundwater levels. The study recommended constructing a community drainage system that would consist of surface improvements such as curbs, gutters, and pavements, as well as storm drains.

Additionally, local regions within Los Osos prone to flooding (Exhibit 5.3-2), as identified in the Estero Area Plan, include:

- Santa Ysabel Avenue between and including portions of 13th and 17th Streets.
- El Morro Avenue between and including portions of 3rd and 12th Streets.
- Paso Robles Avenue between and including portions of 14th and 18th Streets.
- Ramona Avenue between and including portions of 5th and 12th Streets.
- General region east of Solano Street, west of Broderson Avenue, south of Ramona Avenue, and north of Skyline Drive.



Source: AirPhoto USA, Federal Emergency Managment Agency (2007) and MBA GIS Data.

NORTH

3,000 1,500 0 3,000
Feet

Michael Brandman Associates

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Exhibit 5.3-1
100 - Year Flood Hazard Map

COUNTY OF SAN LUIS OBISPO • LOS OSOS WASTEWATER PROJECT
WATER DRAINAGE AND WATER QUALITY EXPANDED ANALYSIS SECTION

Drainage issues in these regions were identified by this report as being caused by rising groundwater levels, the presence of natural sumps, a reduction in natural infiltration area due to paving, and disruption of natural drainage patterns caused by urban development. Problems include roadway flooding that ranges from nuisance ponding to road closures. The most severe residential flooding occurs within various depressions named after the streets where these occur. These include the El Morro Avenue Depression, the Paso Robles Depression, the Ramona Avenue Depression, and Pine Avenue areas (Exhibit 5.3-2).

Project Site Conditions

Site Hydrology and Drainage

The Warden Creek wetland forms the location at which Warden Creek transforms from an ephemeral into a perennial water body. Warden Creek wetland is fed not only by Warden Creek, but also by two ephemeral tributaries that flow northeast to southwest. The site is prone to water pooling due to its low elevation of the wetland (between 20 and 40 feet above mean seal level (AMSL) and its location at a topographical funnel between adjacent hills.

Stormwater runoff from the Cemetery, Giacomazzi, and Branin sites generally flows north and east into nearby Warden Creek and Warden Creek wetland. Runoff on the Tonini site generally flows south and east to enter two drainages designated on site as Drainage T-1, and Drainage T-2, both of which are tributaries to Warden Creek.

Site Water Quality

The proposed projects sites are, or historically have been, used for agricultural activities. Because these activities typically rely heavily on chemical fertilizers, herbicides, and pesticides, it is reasonable to assume that these substances have been applied on these properties for several years. Cattle within a fenced region of the northwest portion of the Tonini site have denuded the grasslands immediately adjacent to Drainage T-1, destroyed the associated wetland vegetation, and have polluted surface waters within this drainage.

Site Flooding

For all proposed projects, the main raw wastewater collection pipeline and treated effluent conveyance pipeline would cross Los Osos Creek, which is located within the 100-year flood hazard area. Additionally, for all projects at least one of these conveyance pipelines would cross Warden Creek, which is also located within the 100-year flood hazard area.

None of the proposed treatment plant sites are located directly within a 100-year flood hazard area. However, for Proposed Projects 1, 2, and 3, the location of the treatment plant sites on the Giacomazzi and Branin properties are located in proximity to (within several hundred feet) the Warden Creek 100-year flood hazard area.

Site Wetlands and Streams

For all proposed projects, the raw wastewater collection pipeline and the treated effluent conveyance pipeline would cross Los Osos Creek and its associated, adjacent wetlands. For all projects at least one of these conveyance pipelines would cross Warden Creek (which does not have wetlands at the location of the crossing).

None of the proposed treatment plant sites would require that a wetland or stream be temporarily or permanently impacted (filled). For Proposed Projects 1, 2, and 3, the location of the treatment plant sites on the Giacomazzi and Branin properties are located in proximity to (within several hundred feet) of Warden Creek and Warden Creek wetland. For Proposed Project 4, the location of the treatment plant site on the Tonini property is located in proximity to (but greater than 100 feet away from) Drainage T-1 and Drainage T-2.

5.3.3 - Regulatory Setting

General Overview of Relevant County Planning Documents

San Luis Obispo County General Plan

The San Luis Obispo County General Plan (General Plan) outlines the development goals of the County and provides a basis for government decision making, as well as for informing the public about the rules that guide development within the County. The General Plan includes both ordinances and elements.

Coastal Zone Land Use Ordinance

The Coastal Zone Land Use Ordinance (CZLUO) lists the standards and permitting procedures for developing land within the coastal zone. These include some design features such as minimum parcel size, setback requirements, building heights, design, and number of parking spaces and standards for grading, drainage, curb and gutter improvement and removing trees. This document contains standards to ensure that a project is consistent with County adopted policies and regulations.

Coastal Zone Land Use Elements

The Coastal Zone Land Use Elements (CZLUE) identify land as belonging to one of 13 categories. It also contains official maps, a framework for planning, 'Area Plans' to determine type and scope of development, and coastal plan policies—which are additional policies for use for development within the coastal zone. Because the proposed projects are all within the coastal zone, these coastal plan policies are applicable. These elements serve as a statement of County land use policies and intentions regarding future growth. They also serve as a guide for daily decisions regarding land use. The elements within the General Plan address components such as Land Use, Conservation, and Open Space. Some elements are required to be included in the plan, whereas state law also allows the adoption of additional elements. These are selected based on their appropriateness to local conditions.

Source: AirPhoto USA and Los Osos/Baywood Park Community Drainage Project.

NORTH

2,000 1,000 0 2,000 Feet

Michael Brandman Associates

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Exhibit 5.3-2
Los Osos Community Areas Subject to Flooding

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WATER DRAINAGE AND WATER QUALITY EXPANDED ANALYSIS SECTION

The elements include the Local Coastal Program (LCP), which applies to those areas within the Coastal Zone. For the purposes of preparing the LCP, the County is divided into four segments. Los Osos is located within the region covered by the Estero Area Plan.

Estero Area Plan

As part of the CZLUE, an "Area Plan" allocates land use throughout a planning area by locating land use categories. These land use categories determine the variety of land uses that may be established on a parcel of land, and also define their allowable density and intensity. The plan contains sections on population and economy, public facilities and services, circulation, and land use. The Area Plan is for general guidance only and is not to be used to approve or disapprove of development or land use proposals.

The Estero Area Plan (part of the elements contained within the General Plan) is the prime planning document for the Estero Area, which includes coastal regions from Cayucos to Los Osos, but excludes the City of Morro Bay. The plan applies to the community of Los Osos and nearly all of the Los Osos Creek watershed. It establishes zoning for properties, planning area standards, and policies that relate to historical sites. It also establishes circulation plans and policies for parks, recreation, libraries, and other services.

Specific Planning Documents Related to Drainage and Surface Water Quality

Land Use Ordinances

Land use ordinances contain standards for development based on what the effects of an action or project will be on specific land uses. Specific ordinances relevant to a discussion of surface water quality and drainage include:

- Title 22 - Land Use Ordinance (revised in 2008)
- Title 23 - Coastal Zone Land Use Ordinance (CZLUO) (revised in January, 2006)

The CZLUO addresses drainage in sections 23.05.040 through 23.05.050. Particularly important to this project is the stipulation of CZLUO Section 23.05.042 that a drainage plan be prepared for the project before a land use or construction permit is issued. This is because all proposed projects would involve land disturbance of more than 40,000 square feet (sq ft), would result in the placement of impervious surface area over more than 20,000 sq ft, and may involve hillside development on slopes steeper than 10 percent. A drainage plan must also be prepared if the project involves land disturbance or the placement of structures within 50 feet of any watercourse shown on a USGS 7.5 minute quadrangle, if the project alters existing drainage and thereby changes the off-site drainage pattern (including, but not limited to, changing the direction, velocity, or volume of flows). The drainage plan would need to be prepared in accordance with requirements outlined in CZLUO Section 23.05.044, and subsequently must be approved by the County Engineer.

CZLUO Section 23.05.036 (Sedimentation and Erosion Control) requires that a Sedimentation and Erosion Control Plan be prepared and submitted for review and approval by the County Engineer when certain conditions exist. These conditions include when grading is proposed to be conducted, or left in an unfinished state, during the period from October 15 through April 15. The plan is also required when land disturbance activities take place within 100 feet of any watercourse shown on the most recent 7.5-minute USGS quadrangle map, or when construction materials may be carried into a watercourse by rainfall or runoff in quantities that may be deleterious to fish, wildlife, or other beneficial uses. The plan shall be prepared by a registered civil engineer or other qualified professional, be approved by the County Engineer, and be prepared in accordance with the San Luis Obispo County Standard Improvement Specifications and Drawings. The report shall also be available for review by the Executive Director of the California Coastal Commission (CCC), and shall include, if required, contractor bid and contractor documents. According to CZLUO Section 23.05.036(d), the plan shall identify control measures that include slope surface stabilization, erosion, and sedimentation control devices, and erosion control measures. Because aspects of the proposed projects would involve construction taking place between October 15 and April 15, and because the placement of pipelines (even if trenchless technology is utilized) would disturb land (including Los Osos Creek) that is within 100 feet of a drainage, the proposed projects would require the preparation of such a Sedimentation and Erosion Control Plan.

This plan will contain measures to be considered for the mitigation of potential drainage, erosion, seepage, and water quality impacts that include, but are not limited to the following:

- Incorporation of onsite runoff collection systems which includes energy dissipation, berms, temporary settling basins, and/or a silt/hydrocarbon separator for the collection and removal of hazardous materials and sediments.
- Incorporation of onsite drainage systems to collect runoff from all impervious onsite surfaces, including parking spaces, roads, and buildings. Discharges of greater than five feet per second may be attenuated for by being released through an energy dissipater or outlet.
- Collection of surface runoff at curbs, gutters, and drainage swales shall be conveyed to an appropriate point of disposal.
- Possible incorporation of sub-surface drains to intercept seepage and convey it to an acceptable point of disposal.
- Watering the site at least twice daily during construction or more frequently if determined necessary.
- Revegetating portions of the site exclusive of paved areas as soon as reasonable after grading.
- Incorporating rain gutters and downspouts for buildings.
- Grading surfaces adjacent to buildings so that runoff is conveyed away from foundations and onto paved surfaces or underground collection pipes.

Coastal Plan Policies

The County of San Luis Obispo Coastal Plan Policies, which forms part of the San Luis Obispo County Land Use Element of the General Plan (revised April, 2007), address Environmentally Sensitive Habitats in Chapter 6.

A section that may be particularly relevant to the implementation of this project is Section 30603 of the Act, which stipulates that the CCC retains appeal authority after certification of the Local Coastal Plan for any development by the County within 100 feet of any stream.

Another section that may be particularly relevant to this project is Section 30412 (c) of Chapter 8 (Public Works) that states that "Any development within the coastal zone…that constitutes a treatment work shall be reviewed by the Commission…"

Los Osos/Baywood Park Community Services District

A community service district governs a variety of public services and is citizen-elected. It consists of elected boards of directors with jurisdiction over specific aspects of municipal operations. Within Los Osos, the Los Osos/Baywood Park Community Services District (LOCSD) is responsible for maintaining a number of stormwater retention basins and is generally responsible for drainage and septic systems. LOCSD has prepared and submitted a SWMP for municipal operations. The LOCSD also completed a community drainage plan.

Federal Water Pollution Control Act, or Clean Water Act (CWA)

Compliance with Section 404 of the CWA

Subject to Section 404 of the CWA, the United States Army Corps of Engineers (USACE) will assert jurisdiction over all waters and their tributaries which flow interstate, are navigable, or are otherwise used in commerce, as outlined in Title 33 of the Code of Federal Regulations (CFR), Section 328.3(a). Impacts to any such "waters of the United States," such as the placement of fill within such water, requires that a Section 404 Permit for the discharge of fill be applied for and received from the USACE in advance of such fill.

Compliance with Section 401 of the CWA

In connection with notification to the USACE under Section 404 of the CWA, a written request for CWA Section 401 Water Quality Certification must be submitted to the Central Coast RWQCB to ensure that no degradation of water quality will result from the proposed project associated with impacts to USACE jurisdictional drainages. Subject to CWA Section 401(a)(1), the USACE cannot issue a Section 404 Dredge/Fill permit until such time as a CWA Section 401 Water Quality Certification (WQC) has been approved by the applicable RWQCB. Section 401 is set forth in General Condition (GC 21) of the USACE Nationwide Permitting Program

In order to meet the requirements of the RWQCB for issuance of Section 401 Water Quality Certification, the project proponent must provide assurances that the project will not adversely affect

the water quality of receiving water bodies. A written request for Section 401 Water Quality Certification will be prepared and submitted to the Central Coast RWQCB for review. The request will include a detailed project description, a description of *proposed* impacts, identification and discussion of beneficial uses of affected receiving waters (beneficial uses are described within the appropriate Water Pollution Control Plan [or "basin plan"] for the RWQCB.), a water quality plan identifying project-specific Best Management Practices (BMPs), discussion of other approvals and certifications being obtained, a conceptual restoration plan, and a completed notification form.

California Fish and Game Code Section 1602

Pursuant to Sections 1600/1602 of the California Fish and Game Code, the CDFG will assert jurisdiction over ephemeral, intermittent, and perennial watercourses to the outer drip-line of the riparian habitat. CDFG will also assert jurisdiction over adjacent wetlands, over streambeds, and associated riparian community/system including adjacent wetlands. Before any impacts are made to such jurisdictional features, a Fish and Game Code Section 1602 Streambed Alteration Agreement (SAA) must be applied for an obtained from the CDFG.

State Water Resources Control Board General Construction Permit

The State Water Resources Control Board (SWRCB) implements aspects of the Federal CWA. In California, any projects that disturb one or more-acres of soil, or any projects that disturb less than one-acre but are part of a larger common plan of development that disturbs one-acre or more, is required to be covered by the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). A Notice of Intent (NOI) package must be submitted to the SWRCB and a site specific Storm Water Pollution Prevention Plan (SWPPP) must be prepared to address construction phase related stormwater discharge issues.

The SWPPP would include a site map, or maps, showing the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection, and discharge points, general topography before and after construction, and drainage patterns across the project site. The plan would also identify erosion controls, runon and runoff controls, sediment controls, sediment tracking, and "good housekeeping" practices related to controlling stormwater runoff. It would also contain sections on materials handling, development of stormwater performance standards, training, and required qualifications of maintenance staff. The implementation of the SWPPP during construction-phase activities would ensure that the project does not violate state water quality standards. The SWPPP would also depict graphically and in list form the BMPs that would be utilized to control and prevent storm water runoff from the construction site. The SWPPP would also contain a visual monitoring plan.

BMPs that may be identified in the SWPPP include the placement of silt fences, as well as sand and gravel bags, the stabilization of entry and exit points, construction of berms, installation of geofabric, revegetation of areas by hydroseeding and mulching, actions for control of potential fuel or drill tailing release, use of trench stabilizing and de-watering and requirements for disposal (i.e., location,

quality), the designation of solid waste container sites, and the identification of storage areas for chemicals, paint, solvents and other construction materials. Once prepared, a copy of the SWPPP would be kept available at the construction site headquarters for review and approval by visiting members of the SWRCB or the Central Coast RWQCB. Copies of the SWPPP would also be made available to the City and to the County, if requested and shall be available for review, if requested, by the County Engineering Department, the Executive Director of the CCC, and the RWQCB.

National Pollutant Discharge Elimination System Permits

As outlined in the CWA Section 402, the NPDES controls direct (point source) discharges into navigable waters. The SWRCB determined that six unincorporated communities located in San Luis Obispo County, including Baywood-Los Osos, are subject to United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Phase II requirements under the "MS4 General Permit." This permit is SWRCB Quality Order No. 2003-0005-DWQ, NPDES General Permit No. CA CAS000004, known as "Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems."

To comply with mandatory requirements of the EPA NPDES Phase II Final Rule, as well as this MS4 General Permit, a Stormwater Management Program (SWMP) was prepared by the County of San Luis Obispo. This SWMP covers the County owned or operated MS4 for unincorporated areas of the County that are within jurisdiction of the County. It does not cover seven incorporated cities within the County, each of which has its own SWMP.

The project must adhere to the requirements outlined in the NPDES Phase II SWMP for the County of San Luis Obispo. This program is implemented by the Department of Public Works and was approved by the Central Coast RWQCB on March 23, 2007, via Resolution R3-2007-0019. A description of BMPs is listed in the SWMP's Section 4.5, Best Management Practices and Measurable Goals for Post-Construction Stormwater Management for New Development and Redevelopment.

The San Luis County SWMP was prepared according to requirements mandated by the NPDES Phase II Final Rule and the MS4 General Permit in order to reduce stormwater pollutants to the "maximum extent practicable" (MEP) through the application of BMPs. The SWMP is intended to provide an integrated approach for the prevention of pollution from stormwater runoff within the County.

The SWMP Section 3.1, "Minimum Control Measure No. 4: Construction Site Runoff Controls," Items 2 and 3, stipulates that the program includes and enforces:

- Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.
- Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

The SWMP addresses BMPs applied in six areas, including Public Education and Outreach, Public Participation and Involvement, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Stormwater Management, and Pollution Prevention/Good Housekeeping. Methods to select and prioritize BMPs under each of these categories are addressed in the SWMP. The document intends to provide an integrated approach for the prevention of pollution runoff in the County and to utilize cost effective means to meet the objectives of both the NPDES Phase II Final Rule and the MS4 General Permit. .

The SWMP identifies water quality issues in Los Osos / Baywood Park as including leaching from septic systems, proximity to the Morro Bay National Estuary, flooding and sumping in low-lying areas, and commercial runoff.

The SWMP is intended to evolve and improve iteratively as results of the implemented program are measured and evaluated. In 2002 the County retained consultants to prepare significant components of the program based on an assessment of needs, an analysis of appropriate BMPs, and on an evaluation of data gathered regarding existing BMPs. This team coordinated efforts with the RWQCB to identify water bodies which have beneficial uses (as identified in the RWQCB Water Quality Control Plan) that are impaired, and to assess the degree to which they are impaired.

According to this SWMP (Section 1, Table 1.2), the County is responsible to manage the implementation of construction site stormwater runoff controls, as well as for post-construction stormwater management, and also for pollution prevention for Municipal operations (unless the facility is owned by LOCSD, in which case LOCSD takes responsibility).

5.3.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to drainage and surface water quality are significant environmental effects, the following questions are analyzed and evaluated. The alphabetic character preceding the question in the list below corresponds to that used by the CEQA Checklist for these environmental issues.

For Hydrology and Water Quality Environmental Issues:

Would the project:

a.) Violate any water quality standards or waste discharge requirements?

c.) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

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

e.) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f.) Otherwise substantially degrade water quality?

g.) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

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

i.) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j.) Inundation by seiche, tsunami, or mudflow?

For Utilities and Service Systems Environmental Issues:

a.) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

c.) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

g.) Comply with federal, state, and local statutes and regulations related to solid waste?

5.3.5 - Analysis

This section analyzes proposed projects 1 through 4. The analysis includes a discussion of project-specific and cumulative impacts, provides mitigation measures where required, and concludes with a determination of level of significance after mitigation.

Water Quality Standards and Requirements

5.3-A: The proposed projects would not violate any water quality standards or waste discharge requirements.

Project-Specific Impact Analysis

Proposed Project 1

Collection System

Proposed Project 1 utilizes a Septic Tank Effluent (STE) Collection System that is comprised of both septic tank effluent pumps (STEP) and septic tank effluent gravity (STEG) converyance lines. This is referred to as a STEP/STEG system. With this system, old septic tanks would be discontinued from service and new STEP/STEG tanks, together with effluent pumps and controls, would be installed at each connection. A total of 4,679 new septic tanks, together with associated pumps and controls, would be installed.

Short Term Construction Impacts

Pipelines and Pump Stations: Proposed Project 1 would include the incorporation of approximately 40,600 linear feet of 6-, 8-, and 10-inch PVC force mains, 203,600 linear feet of pressure sewer collector, 630 isolation valves and air release valves, 240 flushing ports, 1,000 linear feet of creek crossings, and 4,679 new septic tanks with accompanying effluent pumps and controls.

The aggregate-acreage of surface area that would be disturbed by laying pipelines and constructing facilities associated with the collection system would exceed one-acre (the total site area for the collection system, assuming approximately 47 miles of linear conveyances, pressure sewer collectors and creek crossings laid with an associated 20-foot width of disturbed surface area, exceeds 113-acres). Individual components that comprise the collection facilities may disturb less than one-acre. However, these combined components constitute part of a larger common plan of development of one or more acres. The project is therefore subject to the provisions of the state General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit 99-08-DWQ). Therefore, a NOI must be applied for from the SWRCB, a Waste Discharge Identification Number (WDID) obtained, and a project-specific SWPPP prepared.

Construction activities must also comply with the stormwater control requirements outlined in a project specific Sedimentation and Erosion Control Plan, and must adhere to general guidelines outlined in the SLOC SWMP. These documents are individually described in Section 5.3.3: Regulatory Setting.

The implementation of measures described in the SWPPP, the Sedimentation and Erosion Control Plan, and the SWMP would ensure that construction activities would not violate water quality standards or waste discharge requirements.

Between the Mid-Town Raw Wastewater Collection Point and any of the proposed treatment facilities, the raw wastewater collection pipelines would cross Los Osos Creek. This drainage is considered jurisdictional by USACE, RWQCB, and CDFG, and has an Ordinary High Water Mark (OHWM) of approximately 28 feet at the point at which it flows beneath Los Osos Valley Road. The collection conveyance would also cross isolated wetlands that run parallel to segments of the Los Osos Valley Road. The location and acreages of these wetlands are identified in the Delineation of Jurisdictional Waters and Wetlands (Michael Brandman Associates, July 2008).

The project would include excavating a trench to place pipelines across the Los Osos Creek drainage. Temporary impacts would be made to the drainage. These include excavating within the drainage and later filling it, thereby temporarily increasing the quantity of sediment flushed downstream. Because both the collection pipelines that convey raw wastewater and the disposal pipelines that convey treated effluent would run parallel to each other along the same alignment, the two lines would be placed in separate trenches spaced between 4 and 10 feet apart, depending on construction materials.

Excavating trenches across the Los Osos Creek jurisdictional drainage would require that the following regulatory permits be obtained:

- USACE CWA Section 404 Permit for discharge of fill into waters of the United States
- RWQCB CWA Section 401 Water Quality Certification
- CDFG Fish and Game Code Section 1602 Streambed Alteration Agreement

Regulatory agencies often require that mitigation be provided to compensate for loss of jurisdictional waters. Each regulatory permit would be issued with specific conditions that must be met in order for the project to proceed. Compliance with these requirements would result in the project avoiding any violation of water quality standards or waste discharge requirements. The following project design feature (PDF) would reduce potential permanent or temporary impacts to State or federal jurisdictional waters.

PDF 5.3.A-1 Pastoral agricultural activities on the Tonini property in the vicinity of the onsite streams that convey surface water to Warden Creek would cease. This would result in allowing the denuded wetlands to rejuvenate, increasing their associated vegetation and overall biological functions and values. Water quality in drainages associated with such wetlands would improve.

Construction of the collection system may require dewatering of trenches. These waters may be high in suspended solids and other pollutants which would have to be disposed of in accordance with RWQCB standards. Water removed from trenches during construction would be redirected into previously excavated trenches before they are refilled. During preparation of a previous EIR for a similar project, the RWQCB indicated that excess water may fall under the category of a Low Threat Discharge in which up to 100,000 gallons per day may be discharged directly to the ocean on a temporary basis (Final EIR for the Los Osos Community Services Wastewater Facilities Project - State Clearinghouse No. 9911103 - March 1, 2001; page 151). Therefore, the disposal of water from dewatering activities would not have a significant impact.

Septic Tank Abandonment: The community of Los Osos is currently served by septic tanks that serve homes, businesses, mobile home parks, and schools within the "Prohibition Zone," as developed by the RWQCB. It is also served by septic tanks outside the Prohibition Zone. These tanks typically range from 750 to 1,500 gallons in volume.

Implementation of a Septic Tank Effluent Pump/Septic Tank Effluent Gravity (STEP/STEG) System includes the discontinued use of existing septic tanks, the installation of new STEP/STEG tanks and the incorporation of STEP and STEG collection lines into existing systems. This is referred to as a STEP/STEG system. A total of 4,679 new STEP/STEG tanks and pumps would need to be installed in front yards of houses to allow ease of future access. This activity would require that all existing septic tanks be removed or abandoned.

The SLOC Department of Planning and Building requires that an abandoned septic tank be pumped, and that a copy of the receipt for pumping be provided to the area inspector. During the process of septic tank discontinuation, appropriate BMPs to avoid stormwater pollution would be implemented, as described above in the section on Pipelines and Pump Stations. According to the SWRCB NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Water Quality Order 99-08-DWQ), the future removal of such tanks would require the preparation of a SWPPP because the collective activity would involve the disturbance of more than one-acre of soil. The discontinued use of septic tanks would not affect beneficial uses of any waters identified in the RWQCB Basin Plan (such uses are defined as one of the various ways that water can be used for the benefit of people and/or wildlife), and a Waste Discharge Requirement (WDR) permit would not need to be applied for and obtained from the RWQCB.

Implementation of BMPs and adherence to County requirements for septic tank removal and abandonment would result in the project not violating any water quality standards or waste discharge requirements.

Long-term Operational Impacts

Post-construction activities must adhere to the requirements outlined in the NPDES Phase II SWMP for the County of San Luis Obispo. A description of BMPs is listed in this document under Section

4.5 - Best Management Practices and Measurable Goals for Post-Construction Stormwater Management for New Development and Redevelopment.

The project would require the burial of 40,600 linear feet of 6-, 8-, and 10-inch PVC force main and the burial of 203,600 linear feet of pressure sewer collectors. Once buried, these conveyances (as well as 4,679 buried new STEP/STEG tanks) would not violate water quality standards or waste discharge requirements except in the case of an inadvertent system malfunction such as a leak or spillage. Specific actions to address any such non-routine event would be outlined in a long-term operation and maintenance plan for the system, prepared in accordance with guidelines and requirements of the SWMP.

Treatment Plant Site

Short Term Construction Impacts

Implementation of the proposed projects includes construction activities that would not violate any water quality standards or waste discharge requirements. Onsite construction-phase activities may generate such pollutants as silt, sediment, chemicals, debris, oil, and grease. These can originate from the following activities:

- Grading - disruption of surface soils and exposure of such soils to an increased susceptibility to downstream erosion.
- Construction - use of cement, concrete, asphalt, sealants, glues, wood preservatives, paint.
- Equipment operation and vehicle maintenance - washing, degreasing, leakage of oil and fuels.

Best Management Practices: Because project construction would involve the disturbance of more than one-acre of earth, a SWPPP would be prepared as required by, and in accordance with, guidelines provided by the SWRCB. The project must also adhere to the requirements outlined in the project specific Sedimentation and Erosion Control Plan and the SLOC Storm Water Management Plan (SWMP). These documents are individually described in Section 5.3.3: Regulatory Setting.

Sediment Monitoring Plan: Because the project would discharge stormwater runoff directly to a Clean Water Act Section 303(d) listed limited water segment (Warden Creek), the SWPPP must also include a sediment monitoring plan, in conformance with Section A of the Construction General Permit.

Long-term Operational Impacts

The discharge of stormwater from the appurtenance region would not contain either fecal coliform or low dissolved oxygen (both are pollutants/stressors for Warden Creek according to the CWA Section 303(d) list), and should therefore not be required to pass through a treatment control BMP before being discharged.

However, the project must also adhere to CZLUO Section 23.06.102 (a)(5) & (b), which states that:

Land use applications are to be transmitted by the Planning Department to the RWQCB for review if waste flows are expected to exceed 2,500 gallons per day. The RWQCB will determine waste discharge requirements and advise applicant on requirements that are applicable.

In determining requirements that are applicable, the RWQCB (or County) may require that a form of stormwater treatment control BMP be incorporated into the treatment plant design.

A treatment control BMP is an engineered system designed and constructed to remove pollutants from stormwater runoff by such means as simple gravity, settling of particulate pollutants, filtration, biological uptake, media adsorption, or any other physical, biological, or chemical process. The County does not specify types of treatment control BMPs that are required for this activity. The selection of this BMP would be based on overall effectiveness to treat potential pollutants, space constraints, and cost.

Whether or not a treatment control BMP is incorporated into the project, an outfall structure may be specifically designed to channel stormwater into Warden Creek or Warden Creek wetland. A Clean Water Act Section 404 regulatory permit would then be applied for and obtained from the USACE (Nationwide Permit Number 7 - Outfall Structures and Maintenance). An associated CWA Section 401 water quality certification would be obtained from the Central Coast RWQCB, and a Fish and Game Code Section 1602 Streambed Alteration Agreement would be obtained from the CDFG. Adherence to conditions of these permits would result in the discharge outfall not violating any water quality standards or waste discharge requirements.

Precipitation that falls within the fenced region of the 20-acre facultative ponds treatment site on the Giacomazzi property (this may also include an adjacent parking area), as well as within the 8-acre storage region within the Cemetery property, would be collected and incorporated into the treatment process, and not allowed to exit the site as stormwater runoff. Stormwater within the 4-acre appurtenances region on the Branin property can be discharged into Warden Creek or Warden Creek wetland.

To reduce potential water quality impacts to Warden Creek or Warden Creek wetland, the following project design features (PDFs) have been included in the project.

PDF 5.3.A-2 The project facilities, except for storm drains, would be located at least 100 feet from Warden Creek and Warden Creek wetland

PDF 5.3.A-3 The project would include detention/retention basin(s) to collect and treat stormwater runoff.

PDF 5.3.A-4 Implementation of measures described in the SWPPP and the Sedimentation and Erosion Control Plan, and incorporation of operational BMPs according to guidance

provided in the SLOC SWMP would ensure that construction and operational activities for the treatment system do not violate any water quality standards or waste discharge requirements.

Disposal Sites

Because project construction would involve the disturbance of more than one-acre of earth, a SWPPP would be prepared as required by, and in accordance with, guidelines provided by the SWRCB. The project must also adhere to the requirements outlined in the project specific Sedimentation and Erosion Control plan and the SLOC SWMP. These documents are individually described in Section 5.3.3: Regulatory Setting. As discussed in a previously issued United States Fish and Wildlife Service (USFWS) Biological Opinion for the Los Osos Wastewater Project, San Luis Obispo County (1-8-04-F-48), April 20, 2005, all fueling and maintenance of vehicles will occur offsite. Additionally, a response plan will be prepared to address accidental spills, and workers will be educated on the importance of preventing spills, and appropriate measures to take if spills occur.

Short Term Construction Impacts and Long-term Operational Impacts

Conveyance System: The disposal system would comprise the establishment of a sprayfield irrigation system at the Tonini Site and a leachfield at the Broderson site. Both sites are located off Los Osos Valley Road, and the most practical alignment for the conveyance of treated effluent to these sites is parallel to Los Osos Valley Road. Both the raw wastewater collection pipelines (12" to 14" diameter PVC or high density polyethylene) and the treated effluent force main to the Broderson site (maximum 12" diameter PVC or high density polyethylene) can run parallel to each other along the same alignment, but would have to meet separation criteria similar to those between a sewer force main and a potable waterline. The two lines should be placed in separate trenches and spaced between 4 and 10 feet apart depending on construction materials.

The project would require the burial of approximately 18,700 linear feet of 14-inch force main to transmit raw wastewater from the Mid-Town site to Giacomazzi, approximately 17,000 linear feet of 12-inch diameter pipeline to transmit treated effluent from the Giacomazzi site to Broderson leachfield, and approximately 9,800 linear feet of 12-inch diameter pipeline to transmit effluent from Giacomazzi site to Tonini sprayfields. Once buried, these conveyances would not violate water quality standards or waste discharge requirements except in the case of an inadvertent system malfunction such as a leak or spillage. Specific actions to address any such a non-routine event would be outlined in a long-term operation and maintenance plan for the system, prepared in accordance with guidelines and requirements of the SWMP.

Construction of a pump station at Giacomazzi to pump treated effluent to Broderson leachfield and a possible second pump station at Broderson to achieve equal distribution throughout the disposal field (each approximately 0.1-acre in surface area) would provide the addition of less than a half-acre of impermeable surface area within the project site. Although these pump stations would increase the overall quantity of stormwater surface runoff adjacent to their placement, this would be discharged

into a detention/retention basin and would not result in the violation of water quality standards or waste discharge requirements.

Spray Irrigation at Tonini: Spray irrigation is a method of disposing of secondary treated municipal wastewater by spraying it into the air. The sprayed wastewater evaporates or soaks into the soil, from where it infiltrates to the subsurface to recharge the local aquifer. The effluent is therefore not discharged directly into surface water but recharges underlying groundwater. The wastewater is partially treated in the soil by biota that removes the nutrients nitrogen and phosphorous. Spray irrigated treated wastewater effluent may affect ground water quality in the local watershed, but should not affect the quality of stream water leaving the watershed unless it is sprayed directly into, or directly adjacent to, drainages. Sprayfields are operated to maximize evaporation and minimize runoff. Spraying takes place only during the daytime, and any tail water that does not evaporate or infiltrate to the underlying soils is collected and resprayed.

According to the California Code of Regulations Title 22, groundwater recharge facilitated by the utilization of sprayfields is allowed, subject to a case-by-case evaluation by the Central Coast RWQCB.

The spray sites at Tonini would be located on an area of approximately 175-acres below the elevation of 200 feet AMSL as defined by topographic elevation contours on a USGS quadrangle. They would consist of spray heads located three vertical feet above the earth, each having a spray radius of 15 feet. The configuration of these sprayfields is flexible and would be adjusted for local topography.

The sprayfields at Tonini would discharge in proximity to two drainages on site that are considered jurisdictional according to the USACE, RWQCB, and CDFG. The principal drainage (designated as Drainage T-1) encompasses wetlands throughout its length, with the exception of a few hundred feet along its lower (southern) portion where it exits the Tonini property. These wetlands are up to 25 feet in width. The drainage also includes several pools with standing water that are up to 70 feet in length and 30 feet in width.

The secondary tributary drainage within the Tonini property (designated as Drainage T-2) includes an Ordinary High Water Mark (OHWM) up to 5 feet in width and one wetland, located where the drainage enters the property (at the intersection with Turri Road). This wetland region is approximately 60 feet in width, measured from drip line to drip line of the overhead tree canopy.

To satisfy the 100-foot setback requirements identified in CZLUO Section 23.07.172(d) (Wetland setbacks) and Section 23.07.174(d) (Riparian setbacks), the following design features have been included in the project

PDF 5.3.A-5 Jurisdictional drainages on site would be left in their existing condition and the nearest spray heads would be located at least 115 feet (100 foot setback plus 15 foot spray radius) from the upper extent of the wetland.

PDF 5.3.A.6 Berms (earthen or of other suitable material) would be constructed parallel to, and set back from existing onsite drainages (i.e., Drainage T-1 and Drainage T-2). This would prevent sprayed effluent from running off into these drainages.

Dozens of cattle graze along a fenced in, sloping portion of the northwest part of the Tonini site. Cattle use Drainage T-1 as a water source. Grounds adjacent to and within the vicinity of Drainage T-1 are contaminated with cattle feces. Drainage T-1 flows for approximately 1.1 miles from the lower limit of this contamination into Warden Creek. According to the CWA Section 303(d) list of water quality limited segments, Warden Creek is polluted by pathogens from an unknown source. The removal of grazing activities from the Tonini site by project implementation would markedly decrease the quantity of pathogens entering the water and improve the quality of both Drainage T-1 and Warden Creek.

Because the sprayfields are designed to avoid modifying the surface water quality of Drainage T-1 and Drainage T-2 and to avoid discharging into either drainage, a Waste Discharge Requirement (WDR) permit would not need to be obtained from the Central Coast RWQCB.

During operation of the spray system, the County must adhere to the practice of implementing project specific stormwater runoff BMPs, in accordance with objectives outlined in the County SWMP. Adherence to the SWMP would ensure that the County is in compliance with NPDES and RWQCB and that water quality standards and waste discharge requirements are not violated.

Leachfields at Broderson: Leachfields would be constructed over an 8-acre area at the Broderson site to facilitate disposal of secondary effluent generated by the treatment facility. Up to 448-acre-feet per year (AFY) of treated effluent would be discharged at the site. The disposal of effluent at leachfields is not dependent on weather conditions, and does not have to occur evenly throughout the year. A maximum application rate of 30 gallons per day per square foot (gpd/ft^2) of effective infiltration area in the leachfield trenches is recommended, based on an ultimate infiltration rate of 180 gpd/ft^2 that was observed during testing. The leachfield layout would be based on a previous design and would include the excavation of leach line trenches approximately 6.5 feet deep over a rectangular region 8-acres in area. Percolation pipes would consist of 4-inch perforated PVC pipe laid one foot below geotextile fabric, with perforations facing upward.

The leachfields would be designed so that stormwater runoff does not leave the site. Grading would contour the earth to ensure that runoff passes into the leach trenches and infiltrates to the groundwater below.

During operation of the spray system, the County must adhere to the practice of implementing BMPs in accordance with the County SWMP. Adherence to the SWMP would ensure that the County is in compliance with NPDES and RWQCB practices that would result in no violation of water quality standards or waste discharge requirements.

Based on the above evaluation of each of the components of Proposed Project 1, the implementation of the existing federal, State, and County stormwater regulations as well as the incorporation of design features of the project, would result in no violations to water quality standards and waste discharge requirements. Therefore, implementation of the proposed project would result in less than significant impacts associated with water quality standards and waste discharge requirements.

Combined Project Effect

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not violate any water quality standards or waste discharge requirements and therefore result in less than significant impact. Construction and long-term operational activities associated with the proposed facilities would result in a combined effect related to water quality standards or waste discharge requirements; however, the combined effects would be less than significant since the construction and operational activities associated with each project component would not violate water quality standards or waste discharge requirements.

Proposed Project 2

Collection System

Proposed Project 2 utilizes a Solids Handling (SH) Collection System that consists of a combination of conventional gravity sewers (GS) and low pressure grinder pumps (LPGP) or "pocket pumps." With this system, old septic tanks would be taken out of use and either removed or abandoned.

Short Term Construction Impacts

Pipelines and Pump Stations: The project would include the incorporation of approximately 230,000 linear feet of gravity sewers and force mains, 140,000 linear feet of 4-inch diameter sewer laterals, 907 manholes, 5 duplex pump stations, 2 triplex pump stations, 12 pocket pump stations, and 4,679 laterals to join residences to the collection system. The sewer mains are proposed to be PVC and would range from 8-inches to 18-inches in diameter. The sewer lines would be buried at an average depth of 8 feet, with some as deep as 20 feet. Dewatering may be required at some locations.

The aggregate-acreage of surface area that would be disturbed by laying pipelines and constructing facilities associated with the collection system would exceed one-acre (the total site area of all potential pump stations exceeds 2.0-acres; the total site area for the collection system, assuming approximately 70 miles of pipelines laid with an associated 20-foot width of disturbed surface area is approximately 170-acres). Individual components that comprise the collection facilities may disturb less than one-acre (for example, the Mid-Town pump station covers a surface area of approximately 0.1-acre). However, these combined components constitute part of a larger common plan of development of one or more-acres. The project is therefore subject to the provisions of the state General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit 99-08-DWQ). A NOI must be applied for from the SWRCB, a Waste Discharge Identification Number (WDID) obtained, and a project-specific SWPPP prepared.

Construction activities must also comply with the stormwater control requirements outlined in a project specific Sedimentation and Erosion Control Plan, and must adhere to general guidelines outlined in the SLOC SWMP. These documents are individually described in Section 5.3.3, Regulatory Setting.

Implementations of measures described in the SWPPP, the Sedimentation and Erosion Control Plan, and the SWMP would ensure that construction activities would not violate water quality standards or waste discharge requirements.

Between the Mid-Town Raw Wastewater Collection Point and the treatment facility, the raw wastewater collection pipelines would cross Los Osos Creek, as described in Proposed Project 1, above.

The project includes excavating a trench to place pipelines across the Los Osos Creek drainage, as described in Proposed Project 1, above.

Excavating trenches across the Los Osos jurisdictional drainages would require that the regulatory permits and associated compensatory mitigation described in Proposed Project 1 be obtained.

Septic Tank Abandonment: The community of Los Osos is currently served by septic tanks that serve homes, businesses, mobile home parks, and schools within the "Prohibition Zone," as developed by the RWQCB. It is also served by septic tanks outside the Prohibition Zone. These tanks typically range from 750 to 1,500 gallons in volume.

The implementation of a gravity/low pressure collection system as part of the Los Osos Wastewater Project would result in a total of 4,679 septic tanks within the Prohibition Zone being discontinued from service. According to the SWRCB NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Water Quality Order 99-08-DWQ), the future removal of such tanks on an individual basis should not require the preparation of individual SWPPPs unless the activity disturbs more than one-acre of soil. If the tanks are removed collectively by the County, a SWPPP would need to be prepared because the total-acreage disturbed would exceed one-acre.

The SLOC Department of Planning and Building requires that an abandoned septic tank be pumped, and that a copy of the receipt for pumping be provided to the area inspector. The tank then needs to be filled with sand, cement slurry, or concrete. Whether each septic tanks is abandoned on site, or excavated and removed, the activity would not affect beneficial uses of any waters identified in the RWQCB Basin Plan, and a WDR permit would not need to be applied for and obtained from the RWQCB.

Implementation of BMPs and adherence to County requirements for septic tank removal and abandonment would result in the project not violating any water quality standards or waste discharge requirements.

Long-term Operational Impacts

Post-construction activities must adhere to the requirements outlined in the NPDES Phase II SWMP for the County of San Luis Obispo. A description of BMPs is listed in this document under Section 4.5 - Best Management Practices and Measurable Goals for Post-Construction Stormwater Management for New Development and Redevelopment.

The project would require the burial of 230,000 linear feet of gravity sewer and force mains, and approximately 140,000 linear feet of sewer laterals. Once buried, these conveyances would not violate water quality standards or waste discharge requirements except in the case of an inadvertent system malfunction such as a leak or spillage. Specific actions to address any such a non-routine event would be outlined in a long-term operation and maintenance plan for the system, prepared in accordance with guidelines and requirements of the SWMP.

Construction of 19 pump stations (5 duplex pump stations, 2 triplex pump stations, and 12 pocket pump stations) would provide the addition of approximately two-acres of impermeable surface area. As described for Proposed Project 1, this would not result in the violation of water quality standards or waste discharge requirements.

Treatment Plant Site

Short Term Construction Impacts

Implementation of the proposed project alternative includes construction activities that would not violate any water quality standards or waste discharge requirements. On-site construction-phase activities may generate such pollutants as silt, sediment, chemicals, debris, oil, and grease.

Best Management Practices: Because project construction would involve the disturbance of more than one-acre of earth, a SWPPP and Sedimentation and Erosion Control plan will be prepared and the project will comply with the SLOC SWMP. These documents are individually described in Section 5.3.3: Regulatory Setting.

As described for Proposed Project 1, the SWPPP must also include a sediment monitoring plan, in conformance with Section A of the Construction General Permit.

Long-term Operational Impacts

The discharge of stormwater from the appurtenance region would not contain either fecal coliform or low dissolved oxygen (both are pollutants/stressors for Warden Creek according to the CWA Section 303(d) list), and should therefore not be required to pass through a treatment control BMP before being discharged.

However, the project must also adhere to CZLUO Section 23.06.102 (a)(5) & (b), which states that:

> *Land use applications are to be transmitted by the Planning Department to the RWQCB for review if waste flows are expected to exceed 2,500 gallons per day. The RWQCB will determine waste discharge requirements and advise applicant on requirements that are applicable.*

As described for Proposed Project 1, in determining requirements that are applicable, the RWQCB (or County) may require that a form of stormwater treatment control BMP be incorporated into the treatment plant design. .

As described for Proposed Project 1, whether or not a treatment control BMP is incorporated into the project, an outfall structure may be specifically designed to channel stormwater into Warden Creek or Warden Creek wetland.

Precipitation that falls within the fenced region of the 10-acre oxidation ditch/Biolac treatment site on the Giacomazzi property (this may also include an adjacent parking area), would be collected and incorporated into the treatment process, and not allowed to exit the site as stormwater runoff. Precipitation that falls within the approximately 6-acre biosolids drying ground (which is lined and contained) would be maintained in that region and would eventually evaporate. Stormwater leaving the site of the approximately 4-acre appurtenances region of the Branin property can be discharged into Warden Creek or Warden Creek wetland.

To reduce the potential water quality impacts to Warden Creek or Warden Creek wetland, the design features PDF 5.3.A-1 through PDF 5.3.A-3 have been included in the project, as described in Proposed Project 1.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not violate any water quality standards or waste discharge requirements and therefore result in less than significant impact. Construction and long-term operational activities associated with the proposed facilities would result in a combined effect related to water quality standards or waste discharge requirements; however, the combined effects would be less than significant since the construction and operational activities associated with each project component would not violate water quality standards or waste discharge requirements.

Proposed Project 3

Collection System

The potential construction and operation impacts associated with the proposed gravity collection system would generally be the same as described above for Proposed Project 2.

Treatment Plant Site

The potential construction and operation impacts associated with the proposed treatment plant site would be the same as described for Proposed Project 2.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 2.

Combined Project Effects

The potential combined construction and operational impacts associated with the project components would be the same as described above for Proposed Project 2.

Proposed Project 4

Collection System

The potential construction and operation impacts associated with the proposed gravity collection system would generally be the same as described above for Proposed Project 2. However, the project would include the placement of a second crossing over a jurisdictional drainage (Warden Creek).

The crossing over Warden Creek would result in additional temporary impacts to this jurisdictional drainage due to the potential for sedimentation and runoff entering the creek. The same regulatory permits described under Proposed Project 2 would be applied for and obtained, and required mitigation would be implemented.

Treatment Plant Site

The potential construction and operation impacts associated with the proposed treatment plant site would generally be the same as described for Proposed Project 2.

Precipitation that falls within the fenced region of the 20-acre oxidation facultative pond treatment site on the Tonini property (this may also include an adjacent parking area), would be collected and incorporated into the treatment process, and not allowed to exit the site as stormwater runoff. Stormwater leaving the site of the 4-acre appurtenances region of the Branin property can be discharged into Warden Creek or Warden Creek wetland.

If an outfall is specifically designed to channel stormwater into Drainage T-1 or Drainage T-2 or the wetlands associated with these drainages, and if this structure is placed within waters or wetlands considered jurisdictional by USACE, regulatory permits as described in Proposed Project 1 would need to be obtained.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 2.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not violate any water quality standards or waste discharge requirements and therefore result in less than significant impact. Construction and long-term operational activities associated with the proposed facilities would result in a combined effect

related to water quality standards or waste discharge requirements; however, the combined effects would be less than significant since the construction and operational activities associated with each project component would not violate water quality standards or waste discharge requirements.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to water quality standards and requirements.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than significant.

Cumulative

Proposed Project 1 through Project 4

No impact

Drainage Pattern: Erosion or Siltation

5.3-B: **The proposed projects would not substantially alter the existing drainage pattern or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.**

Project-Specific Impact Analysis

Proposed Project 1

Collection System

Short Term Construction Impacts and Long-term Operational Impacts

Long-term drainage patterns to streams or rivers would not be substantially affected by implementation of the project. The decommissioning of old septic tanks, the placement of new septic tanks, and the construction of pump stations would not cause any significant short- or long-term alteration of drainage patterns. Trench digging would modify localized drainage patterns during construction.

Digging trenches would expose sediment to stormwater, increasing the potential for erosion or siltation on-site or off-site.

Construction activities would implement BMPs outlined in the project-specific SWPPP and Sedimentation and Erosion Control Plan. Operational activities would adhere to stormwater management objectives outlined in the SLOC SWMP. These documents are individually described in Section 5.3.3: Regulatory Setting. Implementation of these would ensure that construction and operational activities associated with the collection system do not result in substantial erosion or siltation on-site or off-site. Therefore, impacts would be less than significant.

Treatment Plant Site

Treatment Plant Site - General

Development of each alternative would result in changes to the overall treatment plant site permeability, consequent modifications to the volume, peak flow, and velocity of stormwater exiting the site.

The project design must comply with the San Luis Obispo County Department of Public Works Public Improvement Standards (November 2007). Section 5.1 (Design Standards) requires that each improvement shall be designed "so as not to alter the rate, concentration or location of historic flow patterns," although exceptions may be made by the Department in the best interest of the public in the neighborhood of the design site.

The County design specifications outlined in Section 5.1.2.C of the Improvement Standards (described under Impact 5.3.N, below) require that drainage be mitigated for modifications to flow characteristics (such as peak flow, volume, and velocity, all of which could alter the location of historic flow patterns). A method of providing such mitigation is by utilizing the same detention/retention basin that would be constructed for water quality purposes, and which is described in the Treatment Plant Site section of Impact 5.3-A. The basin would improve the quality of stormwater discharge, mitigate flood flow characteristics, and prevent increased erosion or siltation

on-site or off-site. The size and footprint area of such a basin would vary with different proposed projects.

Estimates of peak flow can be made using the Rational Method, in accordance with requirements outlined in the County Improvements Standards. In this method, peak flow Q = CIA, where C is the coefficient of runoff, I is rainfall intensity, and A is area. Because the variables C and I can be assumed to be approximately the same for each proposed treatment plant site, the resulting modifications to peak flow would be proportional to the overall area that would be made impermeable minus the areas into which precipitation would be incorporated into the treatment process.

Treatment Plant Site - Specific

Because no jurisdictional drainages exist within the region that would be developed, grading would not result in the alteration of the course of a stream or river.

The project site includes both Concepcion Loam and Diablo Clay, both of which have moderate erodability. Grading the site would result in modifications to existing drainage patterns, with the potential result of increasing erosion or siltation. From the highest elevation of the site, adjacent to and north of Los Osos Valley Road, surface stormwater flows northeast down a slope that has a grade predominantly less than 6-percent into Warden Creek and Warden Creek wetland. Grading would modify the surface so that most precipitation falling on the developed site would either enter the 20-acre open facultative ponds or 8-acre storage area (and be incorporated into the treatment process) or onto the 4-acre appurtenances area, from where it would be channeled into a detention/retention basin for water quality control purposes.

Because the surface of the 4-acre appurtenance facility would be largely impervious, the volume of runoff from this specific area would increase from that which existed during pre-development conditions. However, this localized increase in stormwater runoff would be more than offset by the reduction of the overall site runoff. This reduction would occur because precipitation that falls into the facultative ponds and the storage area (totaling 32-acres) would be incorporated into the treatment process and directed away from the site via effluent conveyance pipelines. Therefore, the volume of stormwater discharge leaving the site after project construction would not be greater than pre-development discharge.

The adherence to design requirements (including those outlined in the CZLUO and the County Standards) would result in the project not substantially altering the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on-site or off-site. Therefore, impacts would be less than significant.

Disposal Sites

Existing Drainage Patterns

Potential impacts caused by the construction and operation of sprayfields at the Tonini site and the leachfields at the Broderson site are generally described above in Impact 5.3-A, under the subsection titled Disposal Sites.

The sprayfields at the Tonini site would be designed to capture (allow to infiltrate) a maximum of 3,800 gallons of disinfected secondary treated effluent per-acre per day. Spray that does not evaporate or infiltrate would be collected and resprayed. Grasses grown on the sprayfields would reduce the velocity of surface water flow (by increasing the Manning's roughness coefficient, *n*), thereby increasing infiltration to the underlying aquifer as well as minimizing the potential for erosion or siltation. Implementation of BMPs outlined in the SWPPP during the construction phase, and the inclusion of a berm separating drainages from the spray heads at Tonini, would ensure that the project does not result in additional erosion or siltation occurring on-site or off-site.

The placement of the leachfields at Broderson would increase the infiltration of stormwater that falls on the site as precipitation. The establishment of these fields would not result in additional erosion or siltation occurring on-site or off-site.

Alteration of Stream or Rivers

The placement of the sprayfields and leachfields would not alter the course of any on-site stream or river. Development would not take place within 100 feet of any of the unnamed jurisdictional drainages on site. The adherence to design requirements (including those outlined in the CZLUO and the County Standards) would result in the project not substantially altering the existing drainage patterns in a manner which would result in substantial erosion or siltation onsite or offsite.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in substantial erosion or siltation onsite or offsite. Construction and long-term operational activities associated with the proposed facilities would result in a combined effect related to existing drainage patterns; however, the combined effects would be less than significant since the construction and operational activities associated with each project component would result in less than significant affects on the existing drainage patterns, and therefore, less than significant erosion or siltation would occur onsite or offsite.

Proposed Project 2

Collection System

The potential construction and operation impacts associated with the proposed gravity collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

The discussion of these short term construction and long-term operational impacts discussed for Proposed Project 1 are also generally applicable for Proposed Project 2. Differences applicable to specific treatment control facilities are addressed in the paragraphs below.

Stormwater Treatment - Specific

The project site includes both Concepcion Loam and Diablo Clay, both of which have moderate erodability. Grading the Giacomazzi site would result in modifications to existing drainage patterns,

with the potential result of increasing erosion or siltation. From the highest elevation of the site, adjacent to and north of Los Osos Valley Road, surface stormwater flows northeast down a slope that has a grade predominantly less than 6 percent into Warden Creek and Warden Creek wetland. Grading would result in modifying the surface so that most precipitation falling on the developed site would either enter the 10-acre oxidation ditch/Biolac facility (and at that point be incorporated into the treatment process), or into the approximately 6-acre area (where it would be captured and eventually lost to evaporation), or onto the approximately 4-acre appurtenances area, from where it would be channeled into an on-site detention/retention basin for modifying flow characteristics (and possibly also for water quality control purposes).

Because the surface of the 4-acre appurtenances facility would be largely impervious, the volume of runoff from this specific area would increase from that which existed during pre-development conditions. However, this localized increase in stormwater runoff would be more than offset by the reduction of the overall site runoff. This reduction would occur because precipitation that falls into the oxidation ditch/Biolac and the biosolids area (totaling approximately 16-acres) would be incorporated into the treatment process and directed away from the site via effluent conveyance pipelines, or lost to evaporation. Therefore, the volume of stormwater discharge leaving the site after project construction would not be greater than pre-development discharge.

Because no jurisdictional drainages exist within the region that would be developed, grading would not result in the alteration of the course of a stream or river. Therefore, no significant impacts would occur.

The adherence to design requirements (including those outlined in the CZLUO and the County Standards) would result in the project not substantially altering the existing drainage pattern of the site in a manner which would result in substantial erosion or siltation on-site or off-site. Therefore, no significant impacts would occur.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in substantial erosion or siltation on-site or off-site. Construction and long-term operational activities associated with the proposed facilities would result in a combined effect related to existing drainage patterns; however, the combined effects would be less than significant since the construction and operational activities associated with each project component would result in less than significant affects on the existing drainage patterns, and therefore, less than significant erosion or siltation would occur onsite or offsite.

Proposed Project 3

Collection System

The potential construction and operation impacts associated with the proposed gravity collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

The discussion of these short term construction and long-term operational impacts discussed for Proposed Project 1 are also generally applicable for Proposed Project 3. Differences applicable to specific treatment control facilities are addressed in the paragraphs below.

Stormwater Treatment - Specific:

The project site includes both Concepcion Loam and Diablo Clay, both of which have moderate erodability. Grading the Giacomazzi and Branin sites would result in modifications to existing drainage patterns, with the potential result of increasing erosion or siltation from the highest elevation of the site, north of Los Osos Valley Road, surface stormwater flows northeast down a slope that has a grade predominantly less than 6 percent into Warden Creek and Warden Creek wetland. Grading would result in modifying the surface so that most precipitation falling on the developed site would either enter the approximately 10-acre oxidation ditch or approximately 8-acre seasonal storage area (and at that point is incorporated into the treatment process), or into the approximately 6-acre biosolids area (where it would be captured and eventually lost to evaporation) or onto the approximately 4-acre appurtenances area, from where it would be channeled into an on-site detention/retention basin for modifying flow characteristics (and possibly also for water quality control purposes).

As described in Proposed Project 1, above, the volume of stormwater discharge leaving the site after project construction would not be greater than pre-development discharge.

Because no jurisdictional drainages exist within the region that would be developed, grading would not result in the alteration of the course of a stream or river.

A basin incorporated into the developed area would be designed to ensure that stormwater exiting the site into Warden Creek or Warden Creek wetland does not have volume, velocity, or peak flow characteristics that exceed those of pre-project conditions, and would not increase erosion or siltation on-site or off-site.

The adherence to design requirements (including those outlined in the CZLUO and the County Standards) would result in the project not substantially altering the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on-site or off-site.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in substantial erosion or siltation onsite or offsite. Construction and long-term operational activities associated with the proposed facilities would result in a combined effect related to existing drainage patterns; however, the combined effects would be less than significant since the construction and operational activities associated with each project component would result in less than significant affects on the existing drainage patterns, and therefore, less than significant erosion or siltation would occur onsite or offsite.

Proposed Project 4

Collection System

The potential construction and operation impacts associated with the proposed gravity collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

The discussion of these short term construction and long-term operational impacts discussed for Proposed Project 1 are also generally applicable for Proposed Project 4. Differences applicable to specific treatment control facilities are addressed in the paragraphs below.

Stormwater Treatment - Specific:

Grading of the Tonini site would result in modifications to the existing drainage pattern. From the highest elevation of the site, to the west of Turri Road and along the slope of the peak designated as having a 541-foot tall peak on the USGS quadrangle, surface stormwater flows southeast down a slope with a grade of approximately15-percent into unnamed drainages designed as Drainage T-1 and Drainage T-2 onsite. The region where the treatment facilities would be placed is relatively flat and currently used for agricultural crops. Grading of the site would result in modifying the surface so that most precipitation falling on the developed site would enter the 20-acre facultative pond or 8-acre storage area (and at that point be incorporated into the treatment process), or onto the 4-acre appurtenances area, from where it would be channeled into an on-site detention/retention basin for modifying flow characteristics (and possibly also for water quality control purposes).

Because the surface of the 4-acre appurtenances facility would be largely impervious, the volume of runoff from this specific area would increase from that which existed during pre-development conditions. However, this localized increase in stormwater runoff would be more than offset by the reduction of the overall site runoff. This reduction would occur because precipitation that falls into the facultative ponds and the storage area (totaling 32-acres) would be incorporated into the treatment process and directed away from the site via effluent conveyance pipelines, or lost to evaporation. Therefore, the volume of stormwater discharge leaving the site after project construction would not be greater than pre-development discharge.

Two jurisdictional drainages (and associated wetlands) exist within the region that would be developed. If either drainage is filled, permits would be obtained in advance from the local coastal commission, as well as from the USACE, RWQCB, and CDFG.

The adherence to design requirements (including those outlined in the CZLUO and the County Standards), as well as to permit conditions established by the USACE, RWQCB, or CDFG, would result in the project not substantially altering the existing drainage pattern of the site in a manner which would result in substantial erosion or siltation on-site or off-site. Therefore, no significant impacts would occur.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in substantial erosion or siltation onsite or offsite. Construction and long-term operational activities associated with the proposed facilities would result in a combined effect related to existing drainage patterns; however, the combined effects would be less than significant since the construction and operational activities associated with each project component would result in less than significant affects on the existing drainage patterns, and therefore, less than significant erosion or siltation would occur onsite or offsite.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to drainage patterns and erosion or siltation.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than significant.

Cumulative

Proposed Project 1 through Project 4

No impact.

Drainage Pattern: Flooding

5.3-C:	**The proposed projects would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.**

Project-Specific Impact Analysis

Proposed Project 1

Collection System

Potential impacts caused by construction and operation of the collection system are generally described above under Impact 5.3-B, Proposed Project 1, Collection System.

The report titled Preliminary Engineering Evaluation Los Osos/Baywood Park Community Drainage Project for San Luis County Service Area No. 9J (December 1997, Engineering Development Associates and The Morro Group) identifies several regions within Los Osos that are within the region covered by the collection system in which there are residential flooding problems caused by various factors. Within the entire community (including regions outside of the project site) drainage problems were identified as being within seven categories, including shallow to surfacing groundwater in interdunal depressions and at the bay fringe, excessive concentration of surface runoff, inadequate surface slopes, closed depressions having limited surface, and other nuisance problems and other areas with negligible problems. The report recommends that existing drainage problems (not associated with the proposed projects) be reduced by the incorporation of storm drains and retention basins within the vicinity of the problems.

Construction of the collection system, including the placement of pumps at residences and the laying of pipes, may require dewatering of excavated regions and trenches. Water removed during such construction will be redirected into previously excavated trenches before they are refilled. During preparation of a previous EIR for a similar project, the RWQCB indicated that excess water may fall under the category of a Low Threat Discharge in which up to 100,000 gallons per day may be discharged directly to the ocean on a temporary basis (Final EIR for the Los Osos Community Services Wastewater Facilities Project - State Clearinghouse No. 9911103 - March 1, 2001; page

151). Once construction is completed, the collection system components will generate negligible, if any, additional surface water runoff and therefore should not result in additional impacts.

Treatment Plant Site

Potential impacts caused by construction and operation of the treatment plant site system are generally described above under Impact 5.3-B, Proposed Project 1 - Treatment Plant Site.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above under Impact 5.3-B, Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in a substantial increase in the rate or amount of surface water runoff that would result in flooding. Construction and long-term operational activities associated with the proposed facilities could result in a combined effect related to increasing the rate or amount of runoff; however, the combined effects would be less than significant since negligible collection facilities would remain above ground, the treatment plant site would contain all storm water, and the disposal sites would be operated so that no substantial increase in the rate or amount of surface water runoff would occur.

Proposed Project 2

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1. Additionally, implementation of the project would result in the elimination of septic tank discharge, thereby lowering local groundwater levels and reducing the existing potential for flooding.

Treatment Plant Site

Potential impacts caused by construction and operation of the treatment plant site system are generally described above under Impact 5.3-B, Proposed Project 2 - Treatment Plant Site.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above under Impact 5.3-B, Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in a substantial increase in the rate or amount of surface water runoff that would result in flooding. Construction and long-term operational activities associated with the proposed facilities could result in a combined effect related to increasing the rate

or amount of runoff; however, the combined effects would be less than significant since negligible collection facilities would remain above ground, the treatment plant site would contain all storm water, and the disposal sites would be operated so that no substantial increase in the rate or amount of surface water runoff would occur.

Proposed Project 3

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Projects 1 and 2.

Treatment Plant Site

Potential impacts caused by construction and operation of the treatment plant site system are generally described above under Impact 5.3-B, Proposed Project 3 - Treatment Plant Site.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above under Impact 5.3-B, Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in a substantial increase in the rate or amount of surface water runoff that would result in flooding. Construction and long-term operational activities associated with the proposed facilities could result in a combined effect related to increasing the rate or amount of runoff; however, the combined effects would be less than significant since negligible collection facilities would remain above ground, the treatment plant site would contain all storm water, and the disposal sites would be operated so that no substantial increase in the rate or amount of surface water runoff would occur.

Proposed Project 4

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Projects 1 and 2.

Treatment Plant Site

Potential impacts caused by construction and operation of the treatment plant site system are generally described above under Impact 5.3-B, Proposed Project One - Treatment Plant Site.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above under Impact 5.3-B, Proposed Project 1.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not substantially alter the existing drainage patterns in the respective areas in a manner that would result in a substantial increase in the rate or amount of surface water runoff that would result in flooding. Construction and long-term operational activities associated with the proposed facilities could result in a combined effect related to increasing the rate or amount of runoff; however, the combined effects would be less than significant since negligible collection facilities would remain above ground, the treatment plant site would contain all storm water, and the disposal sites would be operated so that no substantial increase in the rate or amount of surface water runoff would occur.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to drainage patterns and flooding.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than significant.

Cumulative

Proposed Project 1 through Project 4

No impact.

Runoff Water and Drainage Systems

5.3-D: The proposed projects would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Project-Specific Impact Analysis

Proposed Project 1

Collection System

Potential impacts caused by construction and operation of the collection system are generally described above under Impact 5.3-A, Proposed Project 1, Collection System, as well as Impact 5.3-B, Proposed Project 1, Collection System. Additional relevant information is provided in the paragraphs below.

During the placement of pipelines and the construction of pump stations, and during subsequent operation of these utilities, BMPs would be implemented to control the quantity and quality of stormwater runoff. Typical pollutants associated with construction can include sediment, cement, sealants, and oils and lubricants. BMPs would be identified in the SWPPP the Sedimentation and Erosion Control Plan and the SWMP. These BMPs would include measures to stop downstream erosion, such as the placement of sandbags, silt fences, temporary berms; identification of sites for waste containers; identification of sites for unloading construction materials, and controlled entry and exit points to construction sites). BMPs would also address the potential spillage of fuel, oil, and lubricants from various vehicles used during construction of the conveyance system (these include a track-mounted excavator, a front end loader, a rubber tired backhoe with front-end loader, a service truck, dump trucks, dewatering pumps, and various pickup trucks and light duty vehicles, as well as a motor grader, loader, paver and roller to be utilized by a paving crew that would restore roadway surfaces after excavation.

Inclusion of these BMPs, adherence to Section 5.1 of the San Luis Obispo County Department of Public Works Improvement Standards regarding drainage, and adherence to CZLUO Section 23.05.050(e)(2) (described in the Treatment Plant Site section immediately below) would ensure that stormwater runoff water would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Treatment Plant Site

In conformance with CZLUO Section 23.05.050(e)(2), which is described under Impact 5.3.N below, the project would include construction and post-construction BMPs to reduce or eliminate pollutants leaving the site. An engineered stormwater drainage system would also be included to direct stormwater flows to the nearest existing drainage. This system would channel stormwater runoff from developed areas of the treatment plant site to a detention/retention basin and from there to the nearest downstream drainage. The basin would be periodically maintained to remove debris, vegetation, and trash. The incorporation of non-structural BMPs and the basin would result in the

project not creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Disposal Sites

The Tonini sprayfields would be designed to accept approximately 3,500 gallons of effluent per-acre per day. Any spray that does not evaporate or infiltrate into the soil would be channeled via a drainage system back to the 48--acre-feet storage pond for reapplication. During precipitation, the spray heads would not operate and the drainage system would channel the "first flush" of precipitation (that contains residual pollutants from the soil surface) back to the storage pond. Additional precipitation would be channeled via an engineered overflow leading out of the bermed spray area toward Drainage T-1 or Drainage T-2. The system would be designed to avoid directing any disinfected secondary treated effluent out of the spray area.

The secondary treated effluent directed to the Broderson site would infiltrate into the 8-acre leachfield. The 6.5-foot deep trenches would be backfilled with a 4-foor layer of gravel for drainage, which would then be covered by geotextile fabric and a final cover of 2.5 feet of native soil. They system is designed so that it would not create or contribute any additional stormwater runoff in the vicinity.

The proposed disposal system would therefore not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, no significant impacts would occur.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not contribute runoff that exceeds existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Construction and long-term operational activities associated with the proposed facilities could result in a combined effect related to contributing stormwater runoff; however, this contribution would be less than significant and would not exceed existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. These facilities would nominally increase stormwater runoff because negligible collection facilities would remain above ground, the treatment plant site would contain all stormwater, and the disposal sites would be operated so that no substantial runoff of surface water would occur. In addition, the project includes best water quality best management practices so that no substantial additional sources of polluted runoff would occur; thereby resulting in a less than significant impact.

Proposed Project 2

Collection System

The potential runoff impacts associated with the construction and operation of the collection system facilities would be the same as described above for Proposed Project 1.

Treatment Plant Site

The potential runoff impacts associated with the construction and operation of the facilities at the treatment plant site would be the same as described above for Proposed Project 1.

Disposal Sites

The potential runoff impacts associated with the construction and operation of the facilities at the disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The potential runoff impacts associated with the construction and operation of the facilities within the collection system, and at the treatment plant site and disposal sites would be the same as described above for Proposed Project 1.

Proposed Project 3

Collection System

The potential runoff impacts associated with the construction and operation of the collection system facilities would be the same as described above for Proposed Project 1.

Treatment Plant Site

The potential runoff impacts associated with the construction and operation of the facilities at the treatment plant site would be the same as described above for Proposed Project 1.

Disposal Sites

The potential runoff impacts associated with the construction and operation of the facilities at the disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The potential runoff impacts associated with the construction and operation of the facilities within the collection system, and at the treatment plant site and disposal sites would be the same as described above for Proposed Project 1.

Proposed Project 4

Collection System

The potential runoff impacts associated with the construction and operation of the collection system facilities would be the same as described above for Proposed Project 1.

Treatment Plant Site

The potential runoff impacts associated with the construction and operation of the facilities at the treatment plant site would be the same as described above for Proposed Project 1.

Disposal Sites

The potential runoff impacts associated with the construction and operation of the facilities at the disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The potential runoff impacts associated with the construction and operation of the facilities within the collection system, and at the treatment plant site and disposal sites would be the same as described above for Proposed Project 1.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to runoff water and drainage systems.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than significant.

Cumulative

Proposed Project 1 through Project 4

No impact.

Water Quality

5.3-E: The proposed projects would not otherwise substantially degrade water quality.

Project-Specific Impact Analysis

Proposed Project 1

Collection System

Potential impacts to water quality caused by construction and operation of the collection system are generally described above under Impact 5.3-A, Proposed Project 1, Collection System.

Treatment Plant Site

Potential impacts to water quality caused by construction and operation of the collection system are generally described above under Impact 5.3-A, Proposed Project 1, Treatment Plant Site.

The purpose of the proposed project is to treat wastewater to a level where it can be disposed of off-site as disinfected secondary treated effluent. The proposed project is therefore intended to improve, not degrade, water quality. Ancillary activities to the principal project function, such as routine maintenance activities, landscaping, and parking could potentially generate pollutants such as pathogens, oil, grease, nutrients, and pesticides that could enter downstream water courses through stormwater. The proposed project would include a storm drain system and at least one water quality detention/retention basin. This basin would allow at least partial infiltration of polluted stormwater to the underlying groundwater table. The basin(s) would also allow pollutants to settle and be treated to a level so that any discharge would avoid polluting downstream waters. The project would therefore not contribute to a degradation of water quality.

Disposal Sites

Potential impacts to water quality caused by construction and operation of the Disposal Sites are generally described above under Impact 5.3-A, Proposed Project 1, Disposal Sites.

Combined Project Effects

Individually, the construction and operation of the facilities associated with the collection system, treatment plant site, and disposal sites would not contribute runoff that would substantially degrade surface water quality. Construction and long-term operational activities associated with the proposed project facilities could result in a combined effect related to water quality degradation; however, each component of the proposed project includes water quality best management practices so that no substantial surface water quality degradation would occur; thereby resulting in a less than significant impact.

Proposed Project 2

The potential construction and operation impacts to water quality associated with the proposed collection, treatment, and disposal system would be the same as described above for Proposed Project 1.

Proposed Project 3

The potential construction and operation impacts to water quality associated with the proposed collection, treatment, and disposal system would be the same as described above for Proposed Project 1.

Proposed Project 4

The potential construction and operation impacts to water quality associated with the proposed collection, treatment, and disposal system would be the same as described above for Proposed Project 1.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to water quality.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than significant.

Cumulative

Proposed Project 1 through Project 4

No impact.

Housing Placement: Flood Hazard Area

5.3-F:	**The proposed projects would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.**

Project-Specific Impact Analysis

Proposed Projects 1 through 4

Implementation of Proposed Projects 1 through 4 would not involve the development of housing. Therefore, although portions of the project site are located within a 100-year flood hazard zone as mapped on FEMA FIRMs, no housing would be placed within the boundaries of that zone (refer to the EIR's Section 3, Project Description). Therefore, there would be no impact.

Cumulative Impact Analysis

Proposed Projects 1 through 4

Since the proposed projects do not include the development of housing, the projects would not contribute cumulatively to the placement of housing within 100-year flood hazard areas. Therefore, the Proposed Projects 1 through 4 would result in no flood hazard impacts associated with the placement of housing.

Mitigation Measures

Project-Specific

Proposed Projects 1 through 4

No mitigation measures are required.

Cumulative

Proposed Projects 1 through 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Projects1 through 4

No impact.

Cumulative

Proposed Projects 1 through 4

No impact.

Structures: Flood Hazard Area

5.3-G: The proposed projects would not place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Project-Specific Impact Analysis

Proposed Project 1

Collection System

According to FEMA FIRM Number 06079C1045F Panel (FEMA online version, 2008) the Los Osos Creek drainage defines a portion of, and lies within, the 100-year flood hazard area. The collection system running parallel to Los Osos Valley road would pass across an approximately 230 foot wide cross sectional region of Los Osos Creek that is within this 100-year flood hazard area.

> In accordance with CZLUO Section 23.07.065(a), which is described under Impact 5.-3.N, below, pipelines would be buried beneath the flood hazard area and would not impede or redirect flood flows. Therefore, the impact would be less than significant.

Treatment Plant Site

According to FEMA FIRM Number 06079C1033F and 06079C1045F Panel (FEMA online version, 2008), Warden Creek, Warden Creek wetland, and Warden Lake lie within the 100-year flood hazard area.

In accordance with CZLUO Section 23.05.050(c), described under Impact 5.3-N below, the treatment plant site structures would all be located outside of the 100-year flood hazard area, with the potential exception of a storm drain outfall. If an outfall is placed within the flood zone, a drainage plan would be prepared and reviewed in accordance according to CZLUO Section 23.07.064 (Flood Hazard Area Permit and Processing Requirements), and the structure would be "flood-proofed" to a minimum of one-foot above the 100-year storm flood profile level, in accordance with CZLUO Section 23.07.066(a)(11).

In accordance with CZLUO Section 23.07.066(a)(10), all other treatment facility structures would be constructed at a minimum of one foot above the 100-year storm flood profile level,

A storm drain outfall exposed to the 100-year flood flows within Warden Creek would present relatively small surface areas to any flood flows. Even if "flood-proofing" measures increase the exposed surface area of this pipe or drain, the total area would still be not be enough to impede or redirect flows to any significant degree. Therefore, the impact would be less than significant.

Disposal Sites

According to FEMA Flood Insurance Rate Map Numbers 06079C1033F and 06079C1045F (FEMA online version, 2008), the alignment of the conveyance system from the treatment site to the Broderson leachfields crosses an approximately 230 foot wide cross section of Los Osos Creek that is within the 100-year flood hazard area.

According to FEMA FIRM Number 06079C1045F (FEMA online version, 2008), the alignment of the conveyances from the treatment site to the Tonini sprayfields crosses an approximately 340 foot wide cross section of Warden Creek that is within the 100-year flood hazard area.

Pipelines would be buried beneath the flood hazard area and would not impede or redirect flood flows. All construction activities related to crossings of drainages would take place during the dry season to minimize the potential for flooding. Therefore, the impact would be less than significant.

Combined Project Effects

Except for pipelines that would cross areas that are within a 100-year flood hazard area, the facilities associated with Proposed Project 1 would be located outside of the 100-year flood hazard area. As for the pipelines, construction activities would take place during the dry season to minimize the potential for flooding. In addition, during operational activities the pipelines that cross the 100-year flood hazard areas would be located below ground and would not be affects by a 100-year flood. Therefore, the combined effect of placing structures within a 100-year flood hazard area would be less than significant.

Proposed Project 2

The potential construction and operation impacts associated with the proposed collection, treatment, and disposal systems would be the same as described above for Proposed Project 1.

Proposed Project 3

The potential construction and operation impacts associated with the proposed collection, treatment, and disposal systems would be the same as described above for Proposed Project 1.

Proposed Project 4

Collection System

The potential construction and operation impacts associated with the proposed collection system would be generally the same as described above for Proposed Project 1. However, the raw wastewater collection system would include approximately 10,400 feet of additional force main than the length used for the other proposed projects. The collection conveyance and the treated effluent conveyance pipelines would both cross both Los Osos Creek and Warden Creek. Buried pipelines would be placed in separate trenches and would maintain a 4 foot to ten foot spacing apart from each other. The pipelines that cross beneath Warden Creek would present no surface area exposed to flood flows, and would therefore not impede or redirect flood flows to any significant degree. Therefore, the impact would be less than significant.

Treatment Plant Site

The potential construction and operation impacts associated with the proposed treatment plant site would be generally the same as described above for Proposed Project 1. Additional relevant information is provided below.

According to FIRM Number 06079C1033F (FEMA online version, 2008) the two drainages designated as Drainage T-1 and Drainage T-2 do not lie within the 100-year flood hazard area. If either drainage is filled, appropriate permits would be obtained from the County, as well as from federal and state regulatory agencies.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The potential construction and operation impacts associated with the proposed facilities associated with the collection system, treatment plant sites, and disposal sites would be the same as described above for Proposed Project 1.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to placement of structures within a 100-year flood hazard area.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than significant.

Cumulative

Proposed Project 1 through Project 4

No impact.

Flooding

5.3-H:	**The proposed projects would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.**

Project-Specific Impact Analysis

Proposed Project 1

Collection System

The collection facilities have been proposed outside of the 100-year flood hazard area, with the exception of the crossings over both Los Osos Creek and Warden Creek. The crossings would be stabilized either through burial beneath the drainage, or in the case of Los Osos Creek, through attachment to the bridge, as described in Impact 5.3.G, Project 1.

There are no dams within the vicinity of the project site that could, due to failure, involve flooding that would expose people or structures to a significant risk of loss, injury, or death involving flooding. Therefore, no significant impacts would occur.

Treatment Plant Site

Facilities within the site are located more than 100 feet from the upland boundary of the 100-year flood hazard area, as defined in the FEMA FIRM. Additionally, the layout of the areas dedicated to appurtenances within the Branin property are sited within the southern and westernmost portions of that property, therefore satisfying requirement that they be located outside of the flood hazard area to the maximum extent feasible within the boundaries of the Branin property. There are also no dams within the vicinity of the treatment plant site. Therefore, the placement of the treatment plant would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Disposal Sites

The disposal sites at Broderson and Tonini are sited outside of the 100-year flood hazard area, as defined in the FEMA FIRM. There are also no dams within the vicinity of the project site. Therefore, the placement of the disposal sites would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Combine Project Effects

Except for pipelines that would cross areas that are within a 100-year flood hazard area, the facilities associated with Proposed Project 1 would be located outside of the 100-year flood hazard area. As for the pipelines, construction activities would take place during the dry season to minimize the potential for flooding. In addition, during operational activities the pipelines that cross the 100-year

flood hazard areas would be located below ground and would not be affects by a 100-year flood. In addition, there are no dams within the vicinity of the project site that could, due to failure, involve flooding that would expose people or structures to a significant risk of loss, injury, or death involving flooding. Therefore, the combined effect of placing structures within a 100-year flood hazard area would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Proposed Project 2

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

Facilities within the site are located more than 100 feet from the upland boundary of the 100-year flood hazard area, as defined in the FEMA FIRM. Additionally, the layout of the regions dedicated to the oxidation ditch/Biolac, appurtenances, and biosolids within the Giacomazzi property are sited within the westernmost portions of that property, therefore satisfying requirement that they be located outside of the flood hazard area to the maximum extent feasible within the boundaries of the Giacomazzi property. There are also no dams within the vicinity of the treatment plant site. Therefore, the placement of the treatment plant would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. There would be no significant impacts.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combine Project Effects

Except for pipelines that would cross areas that are within a 100-year flood hazard area, the facilities associated with Proposed Project 2 would be located outside of the 100-year flood hazard area. As for the pipelines, construction activities would take place during the dry season to minimize the potential for flooding. In addition, during operational activities the pipelines that cross the 100-year flood hazard areas would be located below ground and would not be affects by a 100-year flood. In addition, there are no dams within the vicinity of the project site that could, due to failure, involve flooding that would expose people or structures to a significant risk of loss, injury, or death involving flooding. Therefore, the combined effect of placing structures within a 100-year flood hazard area would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Proposed Project 3

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

Facilities within the site are located more than 100 feet from the upland boundary of the 100-year flood hazard area, as defined in the FEMA FIRM. Additionally, the layout of the regions dedicated to the oxidation ditch/Biolac, appurtenances, storage, and biosolids the Giacomazzi and Branin properties are sited within the southern and westernmost regions of those properties, therefore satisfying requirement that they be located outside of the flood hazard area to the maximum extent feasible within the boundaries of those properties. There are also no dams within the vicinity of the treatment plant site. Therefore, the placement of the treatment plant would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combine Project Effects

Except for pipelines that would cross areas that are within a 100-year flood hazard area, the facilities associated with Proposed Project 3 would be located outside of the 100-year flood hazard area. As for the pipelines, construction activities would take place during the dry season to minimize the potential for flooding. In addition, during operational activities the pipelines that cross the 100-year flood hazard areas would be located below ground and would not be affects by a 100-year flood. In addition, there are no dams within the vicinity of the project site that could, due to failure, involve flooding that would expose people or structures to a significant risk of loss, injury, or death involving flooding. Therefore, the combined effect of placing structures within a 100-year flood hazard area would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Proposed Project 4

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

Facilities within the site are located more than 100 feet from the upland boundary of the 100-year flood hazard area, as defined in the FEMA FIRM. Additionally, the layout of the regions dedicated to biosolids and appurtenances within the Tonini property are sited as far as is feasible away from the wetlands on site, therefore satisfying requirement that they be located outside of the flood hazard area to the maximum extent feasible within the boundaries of the Tonini property. There are also no dams within the vicinity of the treatment plant site. Therefore, the placement of the treatment plant would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combine Project Effects

Except for pipelines that would cross areas that are within a 100-year flood hazard area, the facilities associated with Proposed Project 4 would be located outside of the 100-year flood hazard area. As for the pipelines, construction activities would take place during the dry season to minimize the potential for flooding. In addition, during operational activities the pipelines that cross the 100-year flood hazard areas would be located below ground and would not be affects by a 100-year flood. In addition, there are no dams within the vicinity of the project site that could, due to failure, involve flooding that would expose people or structures to a significant risk of loss, injury, or death involving flooding. Therefore, the combined effect of placing structures within a 100-year flood hazard area would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to flooding.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

No impact.

Cumulative

Proposed Project 1 through Project 4

No impact.

Seiche, Tsunami, or Mudflow

5.3-I:	**The proposed projects would be subject to inundation by seiche, tsunami, or mudflow.**

Project-Specific Impact Analysis

Proposed Project 1

Collection System

The Mid-Town Raw Wastewater Collection Point is located 0.75 linear mile southeast of Morro Bay and 2.0 miles east of the Pacific Ocean. Septic tanks and associated pumps are located at closer distances to both features. The sand dunes that comprise Morro Bay State Park and which separate Morro Bay from the Pacific Ocean rise to a height of up to 80 feet AMSL along a strip of land approximately 0.4 mile wide. These dunes would significantly attenuate the impact of any tsunami traveling perpendicular to the coastline before it moved inland. There is a risk that components of the system (septic tanks, associated pumps, pipelines) would be inundated in the event of a tsunami or seiche, but the majority of these components would be buried and be watertight The raw wastewater conveyance pipelines that are located west of Los Osos, and further from these water bodies, face diminished risk from inundation.

The collection pipeline running parallel to Los Osos Valley Road is located between approximately one third to one half mile north of the base of the Irish Hills. These hills are not prone to mudflows.

Treatment Plant Site

The proposed treatment plant site is located approximately one half mile north of the base of the Irish Hills and is separated from these hills by the Los Osos Valley Road. These hills are not prone to mudflows. The treatment plant site is on a slope with a relatively mild gradient (generally less than 6 percent) that would be graded. The lack of historical risk associated with mudflows as well as the elimination of slopes on the project site minimize the risk that the treatment plant would be impacted by a mudflow.

Morro Bay is located approximately 2.4 linear miles to the west of the project site, and the Pacific Ocean is located 3.9 linear miles west of the project site. The treatment plant site is located at too great a distance from Morro Bay to be influenced by a seiche. The sand dunes that comprise Morro Bay State Park and which separate Morro Bay from the Pacific Ocean rise to a height of up to 80 feet

AMSL along a strip of land approximately 0.4 mile wide. These dunes would significantly attenuate the impact of any tsunami traveling perpendicular to the coastline before it moved inland.

Warden Creek and Warden Creek wetland are located approximately 21 to 40 feet AMSL within 0.1 mile (to the northeast) of project development and could potentially be affected by water emanating from a tsunami that travels southeast along the Los Osos Creek and Warden Creek drainages toward the project site. However, the northern perimeter of the planned project development is currently located at approximately 65 feet AMSL at a horizontal distance of approximately 200 feet (to the southwest) of the perimeter of Warden Creek wetland. The combination of elevation and distance from water bodies minimizes the risk of impact from tsunami. Topography to the west of the project site ranges in elevation from 40 feet to 160 feet AMSL, providing additional protection to the project site.

A registered engineer would determine whether the treatment system is located within any potential tsunami inundation zone. If the project is located within such a zone, then to reduce potentially significant impacts of a tsunami, the following project design feature (PDF) will be included in the project.

PDF 5.3.I-1 Maps of evacuation routes in the event of a tsunami would be prepared and kept in a conspicuous location at the treatment plant site. This design feature would reduce the impacts associated with seiche or tsunami to less than significant.

Disposal Sites

The Broderson leachfield site is located approximately 0.95 mile southeast of Morro Bay, and 1.6 miles east of the Pacific Ocean, at an elevation of approximately 260 feet AMSL. The sand dunes that comprise Morro Bay State Park and which separate Morro Bay from the Pacific Ocean rise to a height of up to 80 feet AMSL along a strip of land approximately 0.4 mile wide. These dunes would significantly attenuate the impact of any tsunami traveling perpendicular to the coastline before it moved inland. The elevation of the site and presence of dunes minimized the risk that the site would be impacted by a tsunami.

The elevation of the site, combined with the distance from both Morro Bay and the Pacific Ocean, minimize the likelihood that the site would be impacted by a tsunami (some of the largest tsunami waves to impact California in recent decades were generated by the Great Alaska Earthquake of March 27, 1960; their waves reaches heights of 21 feet when they reached shore). The site is located at the base of the Irish Hills, but the hills are not prone to mudflows.

The Tonini sprayfields are located approximately 3.5 linear miles to the east of Morro Bay, and 5.0 miles east of the Pacific Ocean. The disposal site at Tonini is located at too great a distance from Morro Bay to be influenced by a seiche. The sand dunes that comprise Morro Bay State Park and which separate Morro Bay from the Pacific Ocean rise to a height of up to 80 feet AMSL along a strip

of land approximately 0.4 mile wide. These dunes would significantly attenuate the impact of any tsunami traveling perpendicular to the coastline before it moved inland.

Topography to the west of the project site ranges in elevation from sea level to 262 feet AMSL at a topographical saddle located between two adjacent peaks (with elevations of 787 feet AMSL to the north and 541 feet AMSL to the south, respectively). These hills and the distance from Morro Bay provide significant protection to the project site from the direct impact of a tsunami. The southern perimeter of the planned project development is currently located at approximately 60 feet AMSL at a horizontal distance of approximately 60 feet (to the south) of Los Osos Valley Road.

The project is located on mild slopes (generally with a grade of less than 3 percent) that would be graded. Surrounding slopes have been used for pastoral grazing and are generally grass covered and lacking gullies. The surrounding topography is not conducive to inundation by mudflow.

The combination of distance from the ocean, local topography, and elevation of the Tonini site result in this site not being subject to inundation by seiche, tsunami, or mudflow.

Combined Project Effects

Except for the facilities that are located directly adjacent to Warden Creek at the proposed treatment plant site, the proposed structures associated with Proposed Project 1 would not be subject to inundation by seiche, tsunami, or mudflow. There is a potential for some of the treatment plant facilities located near Warden Creek to be affected by a tsunami; however, a project design feature has been incorporated to reduce the potential effect to less than significant. Therefore, the combined effects of inundation by seiche, tsunami, or mudflow would be less than significant.

Proposed Project 2

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

The potential construction and operation impacts associated with the proposed treatment plant site would generally be the same as described above for Proposed Project 1. However, the location of the project is further removed from the potential impacts of a tsunami than Proposed Project 1. The northern perimeter of the planned project development is currently located at approximately 80 feet AMSL at a horizontal distance of approximately 560 feet (to the southwest) of the perimeter of Warden Creek Wetland. Therefore, impacts would be less than significant.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The proposed structures associated with Proposed Project 2 would not be subject to inundation by seiche, tsunami, or mudflow. Therefore, the combined effects of inundation by seiche, tsunami, or mudflow would be less than significant.

Proposed Project 3

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

The potential construction and operation impacts associated with the proposed treatment plant site would generally be the same as described above for Proposed Project 1. However, the location of the project is closer from the potential impacts of a tsunami than Proposed Project 1 or Proposed Project 2. The northern perimeter of the planned project development is currently located at approximately 50 feet AMSL at a horizontal distance of approximately 400 feet (to the southwest) of the perimeter of Warden Creek Wetland. As with Proposed Project 1, a registered engineer would determine whether the treatment system is located within any potential tsunami inundation zone. If the project is located within such a zone, then to reduce potentially significant impacts of a tsunami, PDF 5.3.I-1, as described above under Proposed Project 1, will be included in the project.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

Except for the facilities that are located directly adjacent to Warden Creek at the proposed treatment plant site, the proposed structures associated with Proposed Project 1 would not be subject to inundation by seiche, tsunami, or mudflow. There is a potential for some of the treatment plant facilities located near Warden Creek to be affected by a tsunami; however, a project design feature has been incorporated to reduce the potential effect to less than significant. Therefore, the combined effects of inundation by seiche, tsunami, or mudflow would be less than significant.

Proposed Project 4

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

The treatment plant site is located approximately 4,200 feet north of the base of the Irish Hills and is separated from these hills by the Los Osos Valley Road. These hills are not prone to mudflows. The treatment plant site is on a slope with a relatively mild gradient (generally less than 5 percent) that

would be graded. The lack of historical risk associated with mudflows, as well as the elimination of slopes on the project site, minimize the risk that the treatment plant would be impacted by mudflow.

Morro Bay is located approximately 3.5 linear miles to the west of the project site, and the Pacific Ocean is located 5.0 linear miles west of the project site. As described for Proposed Project 1, the height of dunes that comprise Morro Bay State Park would significantly attenuate the impact of any tsunami traveling perpendicular to the coastline before it moved inland.

Topography to the west of the project site ranges in elevation from sea level to 262 feet AMSL at a topographical saddle located between two adjacent peaks (with elevations of 787 feet AMSL to the north and 541 feet AMSL to the south, respectively). These hills and the distance from Morro Bay provide significant protection to the project site from the direct impact of a tsunami. The southern perimeter of the planned project development is currently located at approximately 60 feet AMSL at a horizontal distance of approximately 60 feet (to the south) of Los Osos Valley Road.

The project is located on mild slopes (generally with a grade of less than 3 percent) that would be graded. Surrounding slopes have been used for pastoral grazing and are generally grass covered and lacking gullies. The surrounding topography is not conducive to inundation by mudflow.

The combination of distance from the ocean, local topography, and elevation of the site result in the project not being subject to inundation by seiche, tsunami, or mudflow. Therefore, no significant impact would occur.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The proposed structures associated with Proposed Project 4 would not be subject to inundation by seiche, tsunami, or mudflow. Therefore, the combined effects of inundation by seiche, tsunami, or mudflow would be less than significant.

Cumulative Impact Analysis

Proposed Project 1 through Project 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel Storage Facility at Diablo) have no physical overlap with the proposed project. The two related

Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts regarding seiche, tsunami, or mudflow.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than significant.

Cumulative

Proposed Project 1 through Project 4

No impact.

Wastewater Treatment

5.3-J:	**The proposed projects would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.**

Project-Specific Impact Analysis

Proposed Projects 1 through 4

The purpose of the proposed projects is to provide a new wastewater treatment system for the community of Los Osos (refer to the EIR's Section 3, Project Description). The projects would therefore collect, treat, and dispose of wastewater, and would not generate new sources or quantities of wastewater. Therefore, the projects would not exceed wastewater treatment requirements of the Central Coat RWQCB. Thus Proposed Projects 1 through 4 would result in no impact related to the exceedance of wastewater treatment requirements of the Regional Water Quality Control Board.

Cumulative Impact Analysis

Proposed Projects 1 through 4

Since the proposed projects would result in no impact related to the exceedance of wastewater treatment requirements of the Regional Water Quality Control Board, the proposed projects would result in no cumulative impact.

Mitigation Measures

Project-Specific

Proposed Projects 1 through 4

No mitigation measures are required.

Cumulative

Proposed Projects 1 through 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Projects 1 through 4

No impact.

Cumulative

Proposed Projects 1 through 4

No impact.

Stormwater Drainage Facilities

5.3-K:	**The proposed projects would require or result in the construction of minor new storm water drainage facilities or expansion of existing facilities. The construction of this minor facility would not cause significant environmental effects.**

Project-Specific Impact Analysis

Proposed Project 1

Collection System

New septic tanks that replace old septic tanks, as well as new laterals placed between houses and the new sewer main, would be completely buried, would not affect drainage patterns during long-term operation, and would therefore not require the construction of new storm water drainage facilities or expansion of existing facilities. The housing for new effluent pumps and controls would increase the total impermeable area at each residence by approximately 10 sq ft or less. This minor increase in stormwater runoff from these individual areas can be discharged onto vegetated regions within each property where it would infiltrate into the local groundwater table. If any or all of this minor quantity of stormwater runoff is instead channeled into the existing storm drain system, the quantity would not be sufficient to require the expansion of any existing drainage facilities.

The collection system would include 630 isolation valves and air release valves, as well as 240 flushing ports. The relatively small surface area of each of these components would cause a negligible increase in the volume of localized stormwater runoff. The existing drainage system would accommodate such local minor increases in flow.

The pump stations would add impermeable areas within Los Osos and contribute to increased runoff. Table 5.3-2 shows the peak flows that result from a 50-year, 1 hour storm event (SLOC 2007 Public Improvement Standard Section 5.1: Storm Drainage Design Standards, identifies the requirement for

a designed waterway to accommodate the 50-year storm event without freeboard). Even if the maximum quantity of pump stations for any proposed project is taken into consideration, the increased peak flows are less than 0.5 cubic feet per second (cfs) and would be accommodated within the existing storm drain system. Therefore, the construction of pump stations should not require the expansion of existing drainage facilities.

Treatment Plant Site

A total of approximately 4-acres of surface area on the project site (for appurtenances) would become impermeable once any of the proposed projects is completed. Stormwater runoff generated within this region would be captured in a detention/retention basin on site to improve water quality. A new minor storm drain system may be constructed that leads from the basin to, or to within the vicinity of, Warden Creek, Warden Creek wetland, or Warden Lake. During construction of this system, BMPs would be implemented as required by the SWPPP and the Sedimentation and Erosion Control Plan to control storm water quality. After construction, the basin would itself serve as to improve the quality of stormwater entering the new storm drain. Construction and operation of this minor, localized system (approximately 750 feet in length) would not cause significant environmental effects.

Disposal Sites

The sprayfields at Tonini would require a local drainage system to collect spray that does not evaporate and infiltrate so it can be reapplied. The system would be placed around the boundaries of the sprayfield and sized appropriately. During construction of this system, BMPs would be implemented as required by the SWPPP and the Sedimentation and Erosion Control Plan to control storm water quality. After construction, routine maintenance on site would repair the berm separating sprayfields from jurisdictional drainages on site. Construction and operation of this localized drainage system would not cause significant environmental effects.

Combined Project Effects

The implementation of the project facilities associated with the collection system and at the treatment plant site and disposal sites would result in less than significant impacts; therefore, the combined effects associated with the facilities would result in less than significant.

Table 5.3-2: Post Construction Stormwater Runoff Q Values from Collection System Pump Stations

Pump Station	Location	C - Value: Coefficient of Runoff[1]	Annual Rainfall[2] (inches)	I Value: Rainfall Intensity (I) - 1 hour, 50-year event[3] (inches/hour)	Surface Area (square feet)	Surface Area (acres)	Q Value: Peak Flow, where Q=CIA (cubic feet per second)
Baywood	2nd Street (opposite 1370)	0.95	17	1.1	6045	0.14	0.15
East Ysabel	San Ysabel and South Bay Road	0.95	18	1.4	11,050	0.25	0.33
East Paso	18th and Paso Robles Avenue	0.95	18	1.4	10,500	0.24	0.32
West Paso	3rd and Paso Robles Avenue	0.95	17	1.1	13,600	0.31	0.32
Standby Power Building	Between 1412 and 1328 8th Street	0.95	17	1.1	6,800	0.16	0.33
Pocket Pump Stations (8)	North end of 4th, 8th, 9th, 10th, 11th, 12th, 13th Streets	0.95	17	1.1	19,200	0.44	0.46
Mountain View	Santa Ynez and Mountain View	0.95	19	1.4	3,000	0.07	0.17
Pocket Pump Station (3)	9th and San Luis, 9th and Ramona, 15th and Ramona	0.95	17	1.1	7,200	0.16	0.17
Lupine	Lupine and Donna	0.95	17	1.1	4,200	0.10	0.10
Sunny Oaks	Los Osos Road	0.95	19	1.4	6,300	0.14	0.19

Notes:
1 San Luis Obispo County Standard Construction Drawing Sheet H-3, Table 1, see footnote regarding impervious and paved areas.
2 Drainage Design Manual, City of San Luis Obispo, Figure DDM 4B.
3 San Luis Obispo County Department of Public Works Standard Construction Drawings Sheet H-4, Rainfall Intensity Data, Table 2 and Table 3.

Proposed Project 2

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

A total of approximately 4-acres of surface area on the project site (for appurtenances) would become impermeable once any of the proposed projects is completed. Stormwater runoff generated within this region would be captured in a detention/retention basin on site to improve water quality. A new storm drain system may be constructed that leads from the basin to, or to within the vicinity of, Warden Creek, Warden Creek wetland, or Warden Lake. During construction of this system, BMPs would be implemented as required by the SWPPP and the Sedimentation and Erosion Control Plan to control storm water quality. After construction, the basin would itself serve as to improve the quality of stormwater entering the new storm drain. Construction and operation of this minor, localized system (less than 600 feet in length) would not cause significant environmental effects.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The implementation of the project facilities associated with the collection system and at the treatment plant site and disposal sites would result in less than significant impacts; therefore, the combined effects associated with the facilities would result in less than significant.

Proposed Project 3

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

A total of approximately 4-acres of surface area on the project site (for appurtenances) would become impermeable once the project is completed. Stormwater runoff generated within this region would be captured in a detention/retention basin on site to improve water quality. A new storm drain system may be constructed that leads from the basin to, or to within the vicinity of, Warden Creek, Warden Creek wetland, or Warden Lake. During construction of this system, BMPs would be implemented as required by the SWPPP and the Sedimentation and Erosion Control Plan to control storm water quality. After construction, the basin would itself serve as to improve the quality of stormwater entering the new storm drain. Construction and operation of this minor, localized system (approximately 300 feet in length) would not cause significant environmental effects.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The implementation of the project facilities associated with the collection system and at the treatment plant site and disposal sites would result in less than significant impacts; therefore, the combined effects associated with the facilities would result in less than significant.

Proposed Project 4

Collection System

The potential construction and operation impacts associated with the proposed collection system would be the same as described above for Proposed Project 1.

Treatment Plant Site

A total of approximately 4-acres of surface area on the project site (for appurtenances) would become impermeable once the project is completed. Stormwater runoff generated within this region would be captured in a detention/retention basin on site to improve water quality. A new storm drain system may be constructed that leads from the basin to, or to within the vicinity of Drainage T-1 or Drainage T-2. During construction of this system, BMPs would be implemented as required by the SWPPP and the Sedimentation and Erosion Control Plan to control storm water quality. After construction, the basin would itself serve as to improve the quality of stormwater entering the new storm drain. Construction and operation of this minor, localized system (approximately 200 feet in length) would not cause significant environmental effects.

Disposal Sites

The potential construction and operation impacts associated with the proposed disposal sites would be the same as described above for Proposed Project 1.

Combined Project Effects

The implementation of the project facilities associated with the collection system and at the treatment plant site and disposal sites would result in less than significant impacts; therefore, the combined effects associated with the facilities would result in less than significant.

Cumulative Impact Analysis

Proposed Projects 1 through 4

Related projects within the greater cumulative project area are detailed in Section 4.2 and Exhibit 4.2-1 in the Draft EIR. Three of the nine related projects (Los Osos CSD Waterline Replacement, Los Osos Valley Road Palisades Storm Drain, and AT&T Cable) physically overlap with the study area for the proposed project but are either completed or expected to be completed by the time that construction of the proposed project is anticipated to begin (2010). Six of the nine related projects (State Park Marina Renovation, Morro Bay Wastewater Treatment Plant, Dredging of Morro Bay, CMC Wastewater Treatment Plant, Phase II Steam Generator Replacement at Diablo, and Spent Fuel

Storage Facility at Diablo) have no physical overlap with the proposed project. The two related Diablo projects are in fact nearly 7 miles south of Los Osos. Therefore, since there are no related projects that would contribute to cumulative impacts, implementation of Proposed Projects 1 through 4 would not contribute to cumulative impacts related to stormwater drainage facilities.

Mitigation Measures

Project-Specific

Proposed Project 1 through Project 4

No mitigation measures are required.

Cumulative

Proposed Project 1 through Project 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Project 1 through Project 4

Less than Significant.

Cumulative

Proposed Project 1 through Project 4

No impact.

Consistency with Federal Laws and Local Goals and Policies Related to Hydrology and Water Quality

5.3-L:	**The proposed projects would not conflict with federal laws or local goals and policies relating to hydrology and water quality.**

Project-Specific Impact Analysis

Proposed Projects 1 through 4

Table 5.3-3 provides a discussion of the project's consistency with the federal Clean Water Act, local Coastal Zone Land Use Ordinances, SLOC Coastal Plan Policies, SLOC Department of Public Works Improvement Standards, and the California Code of Regulations. Based on the consistency analysis in Table 5.3-3, Proposed Projects 1 through 4 would not conflict with federal laws or local goals and policies relating to hydrology and water quality; therefore Proposed Projects 1 through 4 would result in less than significant impacts.

Table 5.3-3: Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
State Water Resources Control Board Water Quality Order No. 2003-0005-DWQ; NPDES General Permit No. CA CAS000004				
National Pollutant Discharge Elimination System (NPDES) Phase II requirements under the state Water Quality Order No. 2003-0005-DWQ; NPDES (MS4) General Permit No. CAS 000004.	The SWRCB) has determined that the unincorporated community of Baywood-Los Osos is subject to this permit, which requires that the County of San Luis Obispo, as a Phase II regulated MS4, develop a stormwater management program (SWMP) designed to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) and to protect water quality. The purpose of the County of San Luis Obispo Storm Water Management Plan (SWMP) is to ensure that the county complies with state and federal regulations regarding the discharge of stormwater. On March 23, 2007, the Central Coast RWQCB via Resolution R3-2007-0019 approved the SWMP. The implementation of the proposed projects would be in accordance with the requirements of the SWMP. Therefore, the proposed projects are consistent with this permit.			
Coastal Land Use Goals and Policies				
CZLUO 23.05.034(b)(3)(i) Grading adjustment: The applicable review body has considered the specific characteristics of the site and surrounding area including: the proximity of nearby streams or wetlands, erosion potential, slope stability, amount of grading necessary, neighborhood drainage characteristics, and measures proposed by the applicant to reduce potential erosion and sedimentation.	A Sedimentation and Erosion Control Plan shall be prepared and reviewed for this project, in accordance with CZLUO, County, and local requirements. This plan shall reduce potential erosion and sedimentation. Therefore, the proposed projects are consistent with this ordinance. Refer to Impacts discussion for 5.3-A.			
CZLUO 23.05.036(b) Sedimentation and erosion control plans….shall be submitted to the County Engineer for review and approval. When such plans are required, they shall be prepared by a registered civil engineer or other qualified professional approved by the County Engineer. Such plans shall be prepared in accordance with the San Luis Obispo County Standard Improvement Specifications and Drawings.	A Sedimentation and Erosion Control Plan shall be prepared and reviewed for this project, in accordance with CZLUO, County, and local requirements. Therefore, the proposed projects are consistent with this ordinance. Refer to Impacts discussion for 5.3-A.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
CZLUO 23.05.036(d) Sedimentation and Erosion Control Measures	Sedimentation and erosion controls measures listed in this ordinance that address slope surface stabilization, erosion, and sedimentation control devices shall be implemented in accordance with this CZLUO and with specific SLOC requirements. Therefore, the proposed projects are consistent with this ordinance. Refer to Impacts discussion for 5.3-A.			
CZLUO 23.05.042 Drainage Plan Required	Because all proposed projects would involve land disturbance of more than 40,000 square feet, would result in the placement of impervious surface of more than 20,000 square feet, are located within a Flood Hazard (FH) designation, and may alter existing drainage patterns, a drainage plan would be prepared for the proposed project that is implemented, as required by CZLUO 23.05.042. Therefore, the proposed projects are consistent with this ordinance.			
CZLUO 23.05.050(a) Drainage Standards: Design and Construction Drainage systems and facilities subject to drainage plan review and approval…are to be designed and constructed as set forth in the county Engineering Department Standard Improvement Specifications and Drawings.	Drainage facilities for the proposed project that is implemented would be designed and constructed in a manner that complies with this ordinance, as well as with applicable City and County standards. Therefore, the proposed projects are consistent with this ordinance.			
CZLUO 23.05.050(b) Natural channels and runoff: Proposed projects are to include design provisions to retain off site natural drainage patterns and, when required, limit peak runoff to predevelopment levels.	All proposed projects would include grading at the treatment plant site. This would slightly modify the existing drainage patterns of surface stormwater runoff. However, all jurisdictional drainages that have either an OHWM or a bed and bank (Warden Creek and Warden Creek wetland for Proposed Project 1, 2, and 3, and Drainage T-1 and Drainage T-2 for Proposed Project 4) would not be modified and would maintain their existing configuration and habitat characteristics. Peak flow runoff would be limited to pre-development levels by the inclusion of a detention/retention basin. Therefore, the proposed projects are consistent with this ordinance. See the associated discussion above, under Impacts 5.3-B and 5.3-D.			
CZLUO 23.05.050 (c) Drainage Standards: Areas subject to flooding: Buildings or structures cannot be placed in an area determined by the County Engineer, enforcing as a minimum flood plain management regulations as defined in the National Flood Insurance Program, that are	The proposed locations of treatment plant sites for all proposed projects, as well as the location of the Broderson leachfield site, are outside of the 100-year flood hazard area as defined on the most recent FEMA FIRM maps (online version, 2008). For Proposed Project 1, 2, and 3, raw wastewater collection pipelines would cross Los Osos Creek, and treated effluent conveyance pipelines would cross both Los Osos Creek and Warden Creek. For Proposed Project 4, both sets of pipelines would cross both creeks. These crossings would path through regions identified as being within the 100-year flood hazard			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
subject to flood hazards from inundation, overflow, high velocity or erosion. Exceptions can be made by the County Engineer, if adequate provisions are made, including providing adequate drainage facilities, protective walls, suitable fill, raising the floor level of the building or by other means. The placement of the building and other structures, including walls and fences, on the building site shall be such that waste or mudflow will not be a hazard to the building or adjacent property.	area on the FEMA FIRM maps. A request would be made to the County Engineer to allow an exception to the prohibition of placing structures within this flood hazard area, and adequate drainage facilities would be provided if required for the pipeline crossings. By obtaining an exception from the County Engineer and by constructing adequate drainage facilities associated with the pipeline crossings (if necessary), the proposed projects are consistent with this ordinance. See the associated discussion above, under Impact 5.3-F and Impact 5.3-G.			
CZLUO Section 23.05.050(e)(2) Drainage Standards: Water Runoff: Best Management Practices - Non-Residential Development Best Management Practices for non-residential development shall utilize BMPs to control and prevent pollutants from entering the storm drain system. These BMPs shall be consistent with guidance found in documents such as the California Storm Water Best Management Practices Handbook (Industrial / Commercial). These measures must include both source control and treatment control practices to ensure that contaminants to do not leave the site. Cleaning practices that can impact water quality and that can potentially add chemicals to the storm drain system, such as detergents, oils, grease, corrosive chemicals), will provide designated areas that collect and dispose of this runoff through the sanitary septic system. Street sweeping and cleaning shall take place utilizing BMPs… to	Because project construction would involve the disturbance of more than one-acre of earth, a project specific SWPPP would be prepared as required by, and in accordance with, guidelines provided by the SWRCB. The SWPPP would utilize BMPs identified in the California Storm Water Best Management Practices Handbook, such as maximizing infiltration on site, stabilizing slopes to reduce the potential for erosion, and constructing a treatment control BMP (such as a detention/retention basin). The SWPPP would identify specific BMPs on site on a graphic, would identify the persons responsible for operation and maintenance of the BMPs, and would contain a log of maintenance activities that have taken place on site related to BMPs. The project would also adhere to requirements outlined in the project specific Sedimentation and Erosion Control plan and would follow guidance provided in the SLOC Storm Water Management Plan (SWMP). These documents are individually described in Section 5.3.3: Regulatory Setting. Implementation of these BMPs would ensure that the proposed projects are consistent with this ordinance. See the associated discussion above, under Impact 5.3-A, Impact 5.3-D, and Impact 5.3-E.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
prevent contaminants and cleaning products from entering the same storm drain system. BMPs shall include measures to minimize post-development loadings of total suspended solids.				
23.06.102(a)(4) Regional Water Quality Control Board Review. Any application filed as set forth in Chapter 23.02 (Permit Applications), Section 23.05.020 (Grading)…is to be transmitted by the Planning Department to the RWB for review where on site wastewater treatment and disposal systems other than conventional individual septic tank absorption fields are proposed.	Copies of relevant applications will be forwarded to the RWQCB. Therefore the projects are consistent with this ordinance.			
23.07.065(a) (New Development in Flood Hazard Area), which states that: New structural development, including expansions, additions and improvements to existing development, shall be located outside of the flood hazard areas to the maximum extent feasible. All new structural development located in a flood hazard areas….shall be constructed consistent with the standards set forth in Section 23.07.066 (Construction Standards).	This topic is addressed above, under the consistency discussion for CZLUO 23.05.050(c). Additionally, pipelines for all proposed projects shall be constructed consistent with standards set forth in CZLUO Section 23.07.066. The pipelines that would cross Los Osos and Warden Creek for all proposed projects are less than 18 inches in diameter and would not limit the capacity of these floodways and would not significantly raise the flood heights on the existing Los Osos Valley Road bridge. If pipelines are anchored to the Los Osos Valley Road bridge, then at the location at which they exit the soil within the floodplain, they would be structurally reinforced to prevent collapse or lateral movement in the event of a flood. This sanitary sewer system shall be designed to minimized infiltration of flood waters into the system and discharge from systems into flood waters. See the associated discussion above, under Impact 5.3-F and Impact 5.3-G. By obtaining an exception from the County Engineer and by constructing drainage facilities in accordance with SLOC and CZLUO construction standards, the proposed projects are consistent with this ordinance.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
CZLUO Section 23.07.172(a) Wetlands: Location of Development: The development should be located as far away from the wetland as feasible, provided that other habitat values on the site are not thereby more adversely affected.	For all proposed projects, treatment plant facilities are located as far as is feasible from the nearest wetlands. The distances from these wetlands is identified for each proposed project below. The proposed projects are consistent with this ordinance.			
	The appurtenances facility within the Branin site is located approximately 300 linear feet from Warden Creek wetland. The edge of the facultative ponds on the Giacomazzi property is located approximately 220 linear feet from a wetland tributary of Warden Creek wetland.	The oxidation ditch/Biolac within the Giacomazzi site is located approximately 110 feet from a wetland tributary of Warden Creek wetland.	The storage area on the Branin property is located approximately 350 linear feet from Warden Creek wetland. The oxidation ditch/Biolac is located approximately 200 linear feet from the Warden Creek wetland.	The edge of the facultative ponds at the Tonini site is located more than 100 linear feet from the Drainage T-1 and Drainage T-2 wetlands. The storage area at the Tonini site is located more than 100 linear feet from Drainage T-1 and Drainage T-2 wetlands. The appurtenances facility at the Tonini site is located more than 100 linear feet from Drainage T-1 and Drainage T-2 wetlands.
CZLUO Section 23.07.066(e)(Added 2006 - Reso 2006-6) (Tsunami Inundation Zone) states that: "…where feasible, development shall be sited outside of potential tsunami inundation zones, even if not currently designated as flood hazards. A Registered Civil Engineer with coastal experience shall make a determination, through examination of the	A registered engineer would determine whether the treatment system is located within any potential tsunami inundation zone. Therefore, the proposed projects are consistent with this ordinance See the associated discussion above, under Impact 5.3-I.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
most current tsunami inundation and run-up maps or a wave run-up analysis, whether the site is subject to inundation during a tsunami…"				
CZLUO Section 23.07.172(c) Wetlands: Department of Fish and Game Review: The State Department of Fish and Game shall review all applications for development in or adjacent to coastal wetlands and recommend appropriate mitigation measures where needed, which should be incorporated in the project design.	For the project that is implemented, an application would be submitted to the CDFG to obtain a 1602 Streambed Alteration Agreement for temporary and/or permanent impacts to Los Osos Creek and Warden Creek, and their associated riparian vegetation. These impacts would occur at locations where the raw wastewater treatment conveyance and the effluent disposal pipelines cross these drainages. As part of the application review process, CDFG would review the jurisdictional delineation of waters and wetlands. Mitigation measures that need to be incorporated into the project design would be suggested to the CDFG for review. By notifying CDFG of the project (and impacts to jurisdictional waters) and by complying with mitigation measures that the agency recommends or approves, the implementation of any of the proposed projects would be consistent with this ordinance.			
CZLUO Section 23.07.172(d) Wetland setbacks New development must be located a minimum of 100 feet from the upland extent of all wetlands, unless alternative routes are either infeasible or more environmentally damaging, or unless adverse environmental effects are mitigated to the maximum extent feasible. If a biological report addressing Environmentally Sensitive Habitats determines that additional buffer is required, than a greater setback may be established. The uses that take place within that setback will include those listed in CZLUO 23.07.182(d)(1) (Permitted uses within wetland setbacks). These are limited to passive recreation, educational uses, existing non-structural agricultural development in	For all proposed projects, development would take place at least 100 linear feet from the upland extent of all wetlands. The only exceptions to this would include the placement of pipelines across Los Osos Creek and Warden Creek and the possible construction of a small, localized storm drain system leading from the detention/retention basin toward the jurisdictional drainages on site (which are allowed according to CZLUO Section 23.07.182(d)(1)). The distances of the treatment plant sites from these wetlands are identified for each proposed project below; the projects would therefore be consistent with this ordinance.			
	The appurtenances facility within the Branin site is located approximately 300 linear feet from Warden Creek wetland. The edge of the facultative ponds on the Giacomazzi property is located approximately 220 linear feet from a wetland	The oxidation ditch/Biolac within the Giacomazzi site is located approximately 110 feet from a wetland tributary of Warden Creek wetland.	The storage area on the Branin property is located approximately 350 linear feet from Warden Creek wetland. The oxidation ditch/Biolac is located approximately 200 linear feet from the Warden Creek wetland.	The edge of the facultative ponds at the Tonini site is located more than 100 linear feet from the Drainage T-1 and Drainage T-2 wetlands. The storage area at the Tonini site is located more than 100 linear feet from Drainage T-1 and Drainage T-2 wetlands.

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
accordance with BMPs, utility lines, pipelines, drainage and flood control facilities, bridges and road approaches to bridges (under certain specified conditions) According to CZLUO 23.07.172(d)(2) (Wetland setback adjustment), setbacks can be adjusted, but in no case shall be less than 25 feet, providing that the site would be physically unusable for the principal permitted use unless the setback is reduced and the reduction is the minimum to enable the use to be established after all practical design modifications have been considered. If the setback is less than 100 feet, than mitigation will be required as identified in CZLUO 23.07.172(d)(3) (Requirements for wetland setback adjustment).	tributary of Warden Creek wetland.			The appurtenances facility at the Tonini site is located more than 100 linear feet from Drainage T-1 and Drainage T-2 wetlands.
CZLUO Section 23.07.172(e) (1 through 3) Wetlands: Site development standards: Development affecting wetlands must adhere to these site development standards.	Diking, dredging or filling activities in wetland areas would be allowed to the extent that they are consistent with Environmentally Sensitive Habitats Policy 11 of the Local Coastal Plan an shall not be conducted without the property owner first securing approval of all permits required by this title. Vehicles from public roads would be prevented from entering wetlands by the use of vehicular barriers. Because the proposed projects include structures larger than 1,000 feet in floor area on parcels larger than one-acre that contains wetlands, the property owner would grant the County or an approved land trust an open space easement or fee title dedication of all portions of the site not proposed for development, as well as the entire wetland. By adhering to these standards, all proposed projects are consistent with this ordinance.			
CZLUO Section 23.07.174(a): Streams and Riparian Vegetation: Development adjacent to a coastal stream shall be sited and designed to protect the habitat and shall be compatible with the continuance of such habitat.	For all proposed projects, development adjacent to a coastal stream (Los Osos Creek and Warden Creek) would be preceded by obtaining appropriate permits from regulatory agencies. The laying of pipelines across these drainages would cause temporary impacts to the drainages and associated riparian vegetation. Such impacts would be mitigated for as specifically outlined in the regulatory permits obtained from USACE, RWQCB, and CDFG. Adherence to the general and specific permit conditions, and to CZLUO requirements for setbacks to wetlands and drainages, would satisfy the			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
	requirement that the development is sited and designed to protect habitat and be compatible with the continuance of such habitat. Impacts to riparian vegetation are discussed in the Biological Resources Impact Analysis of this EIR, Therefore, the proposed projects are consistent with this ordinance.			
CZLUO Section 23.07.174(b): Channelization, dams or other substantial alteration of stream channels are limited to: (1): Necessary water supply projects (2): Flood control projects (3) Construction of improvements to fish and wildlife habitat In addition, every streambed alteration conducted pursuant to this title shall employ the best mitigation measures where feasible, including but not limited to: Avoiding the construction of hard bottoms; Using box culverts with natural beds rather than closed culverts to provide for better wildlife movement, and Pursuing directional drilling for pipes, cable, and conduits to avoid surface streambed disturbance.	For all proposed projects, the primary objective is to alleviate groundwater contamination - primarily nitrates - that has occurred at least partially because of the use of septic systems throughout the community of Los Osos. Implementation of this project would result in reducing saline intrusion into coastal aquifers, which would result in a long-term improvement to freshwater wetland systems, and their associated biological habitat. The project would also result in the elimination of grazing at the Tonini site, reducing pathogen loading on Warden Creek and Los Osos Creek and thereby improving the biological functions and values of these waters and having a direct and beneficial impact on fish and wildlife habitat. Therefore, all proposed projects would be consistent with this policy.			
CZLUO Section 23.07.174(d): Streams and Riparian Vegetation: Riparian Setbacks: New development shall be setback from the upland edge of riparian vegetation the maximum amount feasible. In the urban areas, inside the URL, this setback shall be a minimum of 50 feet. In rural areas (outside the URL) this setback shall be a minimum of 100 feet. A larger setback will be preferable in both the urban and rural areas depending on parcel configuration, slope, vegetation	For all proposed projects, development would take place at least 100 linear feet from the upland edge of riparian areas. The only exceptions to this would include the placement of pipelines across Los Osos Creek and Warden Creek and the possible construction of a small, localized storm drain system leading from the detention/retention basin toward the jurisdictional drainages on site (which are allowed according to CZLUO Section 23.07.182(d)(1)). The distances of the treatment plant sites from these wetlands are identified for each proposed project below. Therefore, the proposed projects would be consistent with this ordinance.			
	The appurtenances facility within the Branin site is located approximately 300 linear feet from the riparian	The oxidation ditch/Biolac within the Giacomazzi site is located approximately 110 feet from a tributary of	The storage area on the Branin property is located approximately 350 linear feet from Warden Creek	The edge of the facultative ponds at the Tonini site is located more than 100 linear feet from the

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
types, habitat quality, water quality, and any other environmental considerations.	areas associated with Warden Creek. The edge of the facultative ponds on the Giacomazzi property is located approximately 220 linear feet from a region containing riparian vegetation along a tributary of Warden Creek wetland.	Warden Creek wetland that includes riparian vegetation.	wetland and associated riparian areas. The oxidation ditch/Biolac is located approximately 200 linear feet from the Warden Creek wetland and associated riparian areas	Drainage T-1 and Drainage T-2 riparian areas. The storage area at the Tonini site is located more than 100 linear feet from Drainage T-1 and Drainage T-2 riparian areas. The appurtenances facility at the Tonini site is located more than 100 linear feet from Drainage T-1 and Drainage T-2 riparian areas.
CZLUO 23.07.174(d)(1): Streams and Riparian Vegetation: Permitted Uses within the setback: Permitted uses within the setback are limited to the same as those for wetland setbacks (23.07.172(d)(1) provided the same findings for that section can be made. However, pedestrian and equestrian trails and non-structural uses are permitted without those findings being made. All permitted development in or adjacent to streams, wetlands, and other aquatic habitats shall be designed and/or conditioned to prevent the loss or disruption of the habitat, to protect water quality and to maintain or enhance (when feasible) biological productivity. Design measures are outlined in 23.07.174(d)(1)(i-ii) with respect to drainage controls.	For all proposed projects, facilities would be setback at least 100 feet from streams and riparian vegetation. The exception would be a storm drain to convey stormwater from the appurtenance facility of the treatment plant site to the nearest drainage (for Proposed Projects 1, 2, and 3, this is Warden Creek or Warden Creek wetland; for Proposed Project 4, this is Drainage 1 or Drainage 2 on the Tonini Site). Additionally, pipelines would cross Los Osos Creek (and associated wetlands) and Warden Creek. According to CZLUO 23.07.182(d)(1) (Permitted uses within wetland setbacks), uses which are allowed within this setback region include utility lines, pipelines, drainage facilities or flood control facilities). Therefore the proposed projects are consistent with this ordinance.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
CZLUO 23.07.174(e): Streams and Riparian Vegetation: Alteration of riparian vegetation: Cutting or alteration of natural riparian vegetation that functions as a portion of, or protects, a riparian habitat shall not be permitted except for streambed alterations allowed by 23.07.174(a&b), or for minor public works projects, including utility lines, pipelines, driveways and roads, where the Planning Director determines no feasible alternative exists.	For all projects, cutting or alteration of riparian vegetation associated with Los Osos Creek and Warden Creek shall be for the purpose of placing pipelines or storm drains. Concurrence would be obtained from the Planning Director as to what constitutes the most feasible alternative for placing pipeline crossing and a possible minor storm drain leading from the detention/retention basin into the nearest drainage. Therefore the proposed projects would be consistent with this ordinance.			
CZLUO 23.08.286(c)(1)(i) Where an existing or proposed pipeline is to be used for conveyance of toxic substances or highly volatile liquids other than crude oil…development plan approval is required; CZLUO 23.08.286(c)(1)(ii) Development Plan approval is required for all surface facilities, pumping or booster stations for pipelines, except that such facilities included by Section d, Chapter 7, Part I of the Land Use Element under the definition of "Public Utility Facilities" are subject to the applicable permit requirements for that use. CZLUO 23.08.286(c)(2) Application contents are listed and include the need for a detailed geologic hazard investigation, an engineering design component, a geohazards investigation, a trench inspection program, stream crossing information including utilization of low-flow	For the project that is implemented, development plan approval would be obtained from the County for the pipelines and pump stations associated with the project. Therefore the proposed project that is implemented would be consistent with these ordinances.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
periods, a restoration, erosion control and revegetation plan, and a biological survey within any Sensitive Resource Areas.				
County of San Luis Obispo Coastal Plan Policies - Chapter 6 - Environmentally Sensitive Habitats (Local Coastal Program Policy Document)				
Policy 19 of the Environmentally Sensitive Habitats section in the San Luis Obispo Coastal Plan Policies) Open space easements or offers to dedicate the wetland shall be a condition of major structural development for all property larger than one-acre which contain wetlands habitat.	Impacts to riparian vegetation are discussed in the Biological Resources Impact Analysis of this EIR. See the associated discussion above, under CZLUO Section 23.07.172(e) (1 through 3) Wetlands: Site development standards. By establishing an easement on the project site, the project that is implemented would be consistent with this ordinance.			
Policy 23 of the Environmentally Sensitive Habitats section in the San Luis Obispo Coastal Plan Policies For projects which do not fall under the review of the State Water Resources Control Board, the county (in its review of public works and stream alterations) shall ensure that the quantity and quality surface water discharge from streams and rivers shall be maintained at levels necessary to sustain the functional capacity of streams, estuaries and lakes.	All proposed projects would fall under the review of the SWRCB because each would disturb more than 1-acre of soil. Additionally, all proposed projects would impact waters considered jurisdictional by the Central Coastal RWQCB and would require CWA Section 401 water quality certification applications to be prepared and submitted before project construction begins. The inclusion of a water quality detention/retention basin at all proposed treatment plant sites, as well as the implementation of BMPs outlined in the SWPPP and the Sedimentation and Erosion Control Plan, would ensure that the quality of surface water discharge from streams and rivers shall be maintained at levels necessary to sustain the functional capacity of streams, estuaries, and lakes. Impacts to riparian vegetation are discussed in the Biological Resources Impact Analysis of this EIR, See also the associated discussion above, under Impact 5.3-E. After the project is constructed, some site facilities would capture precipitation and incorporate it into the treatment process, rather than allowing this to exit the site as stormwater runoff. Because this quantity of water would then be directed away from the site via the effluent conveyance pipeline to the Tonini sprayfield site and the Broderson leachfields, the total quantity of stormwater runoff exiting the site would diminish after the project is constructed. The results of calculation of such flow quantities for the 50-year, 1-hour storm are provided below. The overall diminishment of the quantity of stormwater that flows into Warden Creek would be partially offset by the augmentation of flows into the creek resulting from additional infiltration to the groundwater from the Tonini sprayfields (part of this infiltration would			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
	eventually contribute to the base flow of Warden Creek). The overall diminishment of the stormwater quantity that flows into Warden Creek is relatively minor, and is not expected to significantly impact the functional capacity of Warden Creek.			
	Post-Project 50-year, 1-hour event reduction of stormwater peak flows into Warden Creek:			
	16.4 cfs	6.7 cfs	14 cfs	16.4 cfs
Section 30231 "The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations or marine organisms and for the protection of human health shall be maintained, and where feasible, restored through…controlling runoff, preventing depletion of groundwater supplies and substantial interference with surface waterflow, encouraging wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams."	For all proposed projects: Controlling runoff: See the associated discussion above, under Impact 5.3-A, 5.3-B, 5.3-C, and 5.3-D. Interference with surface waterflow: See the associated discussion above, under Consistency of Proposed Project with Policy 23 of the Environmentally Sensitive Habitats section in the San Luis Obispo Coastal Plan Policies. Encouraging wastewater reclamation: A primary objective of the project is to increase wastewater reclamation through the operation of Tonini sprayfields and the Broderson leachfields. Maintaining natural vegetation and buffer areas that protect riparian habitats: See the associated discussion above, under Impact 5.3-A, and 5.3-C. Minimizing alteration of natural streams: See the associated discussion above, under Impact 5.3-A, and under Consistency of Proposed Project with CZLUO Section 23.07.172(d) and CZLUO Section 23.07.174(d). By implementing these measures, the proposed project that is implemented would be consistent with this policy.			
Section 30233(a) "The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where	For all proposed projects: See the associated discussion above, under Impact 5.3-A. The project that is implemented would be consistent with this policy.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects…"				
Section 30233(c) "…diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary."	For all proposed projects the temporary and permanent impacts to jurisdictional wetlands shall take place in accordance with general and specific conditions outlined in USACE, RWQCB, and CDFG permits to be obtained. These permits generally require that compensatory mitigation be established, either by payment of an in-lieu fee to a regulatory agency approved mitigation bank, or by the establishment and operation of a mitigation site in accordance with a methodology outlined in an HMMP prepared according to USACE standards. The establishment of mitigation, often at a greater ratio than 1:1 for impacts to mitigation, would result in the filling of existing wetlands maintaining or enhancing the functional capacity of that wetland. Therefore, all proposed projects would be consistent with this policy.			
Section 30236 "Channelization, dams, or other substantial alteration of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.	Implementation of this project would result in reducing saline intrusion into coastal aquifers, which would result in a long-term improvement to freshwater wetland systems, and their associated biological habitat. The project would also result in the elimination of grazing at the Tonini site, reducing pathogen loading on Warden Creek and Los Osos Creek and thereby improving the biological functions and values of these waters and having a direct and beneficial impact on fish and wildlife habitat. Therefore, all proposed projects would be consistent with this policy.			
Policy 13:Diking, Dredging or Filling of Wetlands: (b) Diking, dredging and filling shall be limited to the smallest areas feasible that is necessary to accomplish the project (c) Designs for diking, dredging and filling and excavation projects shall include protective measures such as silt curtains, and	For all proposed projects, any filling of wetlands shall be limited to the smallest areas feasible (the wetlands are identified in the Delineation of Jurisdictional Waters and Wetlands report, Michael Brandman Associates, July 2008). Protective measures to prevent the discharge of refuse, petroleum spills, and unnecessary dispersal of silt materials would be outlined in both the project specific SWPPP and the Sedimentation and Erosion Control Plan. Therefore all proposed projects would be consistent with this policy.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
weirs to protect water quality in adjacent areas during construction by preventing the discharge of refuse, petroleum spills and unnecessary dispersal of silt materials				
Policy 16: Adjacent Development "Development adjacent to coastal wetlands shall be sited and designed to prevent significant impacts to wetlands through noise, sediment, or other disturbances" and that development "shall be located as far away from the wetland as feasible, consistent with other habitat values on the site."	Construction noise abatement for all proposed projects is addressed in another section of the EIR. For all projects, disturbance to wetland through sediment accumulation is addressed in the associated discussion above, under Impact 5.3-A. For all projects, development would be located as far as is feasible from the wetlands on site. Distances from the proposed project facilities to the wetlands are discussed above, under Consistency of Proposed Project with CZLUO Section 23.07.172(d) and CZLUO Section 23.07.174(d). Adherence to these measures would result in all proposed projects being consistent with this policy.			
County of San Luis Obispo **Coastal Plan Policies - Chapter 8 - Public Works (Local Coastal Program Policy Document)**				
Section 30412 (c) Any development within the coastal zone or outside the coastal zone which provides service to any area within the coastal zone that constitutes a treatment work shall be reviewed by the Commission and any permit it issues, if any, shall be determinative with respect to certain aspects of development (which are listed under the policy, and which address visual appearance, geographic limits of service areas, and development projections).	For all proposed projects, the California Coastal Commission shall review development plans. The project would adhere to these permits. Therefore, the proposed projects would be consistent with this policy.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
Policy 9: Techniques for Minimizing Sedimentation Appropriate control measures (such as sediment basins, terracing, hydro-mulching, etc.) shall be used to minimize erosion and sedimentation. Measures should be utilized from the start of site preparation….A site specific erosion control plan shall be prepared by a qualified soil scientist or other qualified professional. This policy shall be implemented pursuant to Section 23.05.036 of the CZLUO.	For all proposed projects, a project specific SWPPP and a Sedimentation and Erosion Control Plan shall be prepared and adhered to during construction. Refer to the associated discussion above, under Impact 5.3-A, 5.3-B, 5.3-C, and 5.3-D. Sedimentation control measures would be implemented with the result that all proposed projects would be consistent with this policy.			
County of San Luis Obispo Coastal Plan Policies - Chapter 9 - Coastal Watesheds (Local Coastal Program Policy Document)				
Policy 10: Drainage Provisions Site design shall ensure that drainage does not increase erosion. This can be achieved either through on-site drainage retention, or conveyance to storm drains or suitable watercourses.	For all proposed projects, a project specific SWPPP and a Sedimentation and Erosion Control Plan shall be prepared and adhered to during construction. Refer to the associated discussion above, under Impact 5.3-A, 5.3-B, 5.3-C, and 5.3-D. Sedimentation control measures would be implemented with the result that all proposed projects would be consistent with this policy.			
County of San Luis Obispo Coastal Plan Policies - Chapter 11 - Hazards (Local Coastal Program Policy Document)				
Policy 3: Development Review in Hazard Area The County shall require a detailed review of development proposed within the geologic study area and flood hazard combining designations as indicated on the Land Use Element maps for the coastal zone. The	This review will be performed. Therefore, all proposed projects would be consistent with this policy.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
review shall be performed by a qualified registered and / or certified engineering geologist and shall be adequately detailed to provide recommendations and conclusions consistent with this plan.				
San Luis Obispo County General Plan **San Luis Obispo County Department of Public Works Improvements Standards (November, 2007)**				
San Luis Obispo County Public Improvements Standards (Section 5.2.2) require that a detention basin have capacity based on receiving runoff from a 50-year storm and releasing the flow equivalent to runoff from a 2-year storm with the project in a pre-development condition. The basin must drain within 7 days and the outlet must release water in a non-erosive manner.	See the associated discussion above, under Impact 5.3-B, Proposed Project 1, Treatment Plant Site. For all projects, a water quality detention/retention basin would be designed to accommodate flow from the appurtenances region within the treatment plant site. This basin can serve both water quality and flood control purposes. The basin can be sized for both purposes, with the larger size utilized. The project would adhere to design standards identified in the SLOC Public Improvements Standards. Therefore, all proposed projects would be consistent with this policy.			
Section 5.1.2(a) of the Drainage section of the SLOC Public Improvements Standards states that: Discharge leaving the site in the Primary and Secondary Design Storms shall not be greater than pre-development discharge in each case, unless it can be demonstrated that downstream facilities have adequate capacity.	See the associated discussion above, under Impact 5.3-B, Proposed Project 1, Treatment Plant Site. For all projects, the discharge leaving the site during the Primary and Secondary Design Storms (50- and 25-years, in this case), would not be greater than pre-development discharge. Therefore, all proposed projects would be consistent with this policy.			
Section 5.1 (Design standards): each improvement shall be designed "so as not to alter the rate, concentration or location of historic flow patterns," although exceptions may be made by the Department in the best interest of the public in the neighborhood of the design site.	See the associated discussion above, under SLOC Department of Public Works Improvement Standards Section 5.1.2(a), as well as the discussion under Impact 5.3-B, Proposed Project 1, Treatment Plant Site. All proposed projects would be consistent with these sections of the improvement standards.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

Drainage and Surface Water Quality Goals, Policies, and Ordinances	Consistency of Proposed Projects			
	Proposed Project[1]	Proposed Project[2]	Proposed Project[3]	Proposed Project[4]
Section 5.1.2.C (Hydraulic Design Standards - Downstream Constraints) discharge leaving the site in the Primary and Secondary Design Storms (in this case 25-year and 50-year events) "shall not be greater than pre-development discharge in each case, unless it can be demonstrated that downstream facilities have adequate capacity."				
Section 5.1.3.B (Diversion Permitted Only Within Limits of Project) specifies that all natural drainage "must leave the improved area at its original horizontal and vertical alignment and with approximately the same discharge velocity as existed prior to development."	See the associated discussion above, under SLOC Department of Public Works Improvement Standards Section 5.1.2(a), as well as the discussion under Impact 5.3-B, Proposed Project 1, Treatment Plant Site. The detention/retention basin can be used to control the velocity of stormwater discharge into the nearest jurisdictional drainages. All proposed projects would be consistent with these sections of the improvement standards.			

Table 5.3-3 (Cont.): Consistency of the Proposed Projects with Goals, Policies, and Ordinances Regarding Drainage and Surface Water Quality

<table>
<tr><th rowspan="2">Drainage and Surface Water Quality Goals, Policies, and Ordinances</th><th colspan="4">Consistency of Proposed Projects</th></tr>
<tr><th>Proposed Project[1]</th><th>Proposed Project[2]</th><th>Proposed Project[3]</th><th>Proposed Project[4]</th></tr>
<tr><td>California Code of Regulations (June 2001) Title 22, Article 5.1, subsection 60320 (Groundwater Recharge), subsections a, b, c. From subsection a:
Reclaimed water used for groundwater recharge of domestic water supply aquifers by surface spreading shall be at all times of a quality that fully protects public health. The State Department of Heath Services' recommendations to the Regional Water Quality Control Boards for proposed groundwater recharge projects and for expansion of existing projects will be made on an individual case basis where the use of reclaimed water involves a potential risk to public health.</td><td colspan="4">Before the last plans to construct a wastewater treatment facility at Los Osos were abandoned, the Central Coast RWQCB issued Waste Discharge/Recycled Water Requirements Order No. R3-2003-0007. The effluent and recycled water limitations from that order are shown below. Unless the RWQCB requires alterations to these figures, the wastewater project must result in treated effluent and recycled water that meets these limitations. Therefore the proposed projects would be consistent with this section for the improvement standards.
<table>
<tr><th colspan="4">Effluent Limitations</th></tr>
<tr><th>Constituent</th><th>Units</th><th>Monthly Average</th><th>Daily Maximum</th></tr>
<tr><td>Settleable Solids</td><td>mg/l</td><td>0.1</td><td>0.5</td></tr>
<tr><td>Biological Oxygen Demand (BOD), 5-Day</td><td>mg/l</td><td>60</td><td>100</td></tr>
<tr><td>Suspended Solids</td><td>mg/l</td><td>60</td><td>100</td></tr>
<tr><td>Total Nitrogen (as N)</td><td>mg/l</td><td>7</td><td>10</td></tr>
<tr><td colspan="4">Recycled Water Limitations</td></tr>
<tr><td>BOD, 5-Day</td><td>mg/l</td><td>30</td><td>90</td></tr>
<tr><td>Suspended Solids</td><td>mg/l</td><td>30</td><td>90</td></tr>
<tr><td>Turbidity</td><td>NTU</td><td>2*</td><td>5**</td></tr>
<tr><td>Ph</td><td>Units</td><td colspan="2">In range 6.5-8.4</td></tr>
<tr><td colspan="4">Notes:
* 24-hour mean value
** Turbidity must not exceed 5 NTU more than 5 percent of the time within a 24-hour period and must not exceed 10 NTU</td></tr>
</table></td></tr>
</table>

Cumulative Impact Analysis

Proposed Projects 1 through 4

Based on the above consistency analysis for Proposed Projects 1 through 4, these projects would not contribute to cumulative impacts on federal laws and local goals and policies relating to hydrology and water quality. Therefore, Proposed Projects 1 through 4 would result in no cumulative impacts.

Mitigation Measures

Project-Specific

Proposed Projects 1 through 4

No mitigation measures are required.

Cumulative

Proposed Projects 1 through 4

No mitigation measures are required.

Level of Significance After Mitigation

Project-Specific

Proposed Projects 1 through 4

Less than Significant.

Cumulative

Proposed Projects 1 through 4

No impact.