



2.0 Executive Summary



2.0 EXECUTIVE SUMMARY

2.1 PROJECT LOCATION AND BACKGROUND

PROJECT LOCATION

Cambria is an unincorporated community located in the coastal region of central California, in the northwestern portion of San Luis Obispo County. Cambria is located along Highway 1, approximately 35 miles north of San Luis Obispo.

The Coastal Zone of San Luis Obispo County is divided into four planning areas. Cambria is located entirely within the boundaries of the North Coast Planning Area. Cambria's Urban Reserve Line (URL) (i.e., the urban portion of Cambria within the North Coast Planning Area) encompasses approximately 2,351 gross acres, with a net acreage of approximately 1,790 acres, not counting the land in the road rights of way and beach areas along the bay or ocean.

BACKGROUND AND HISTORY

The Cambria Community Services District (CCSD) is an independent special district that provides water, wastewater, fire and other community services to its customers. The CCSD has developed a phased completion of its *Water Master Plan Update*, which consists of three draft reports prepared by Kennedy/Jenks Consultants. The first of the Draft Task 3 reports focuses on the potable water distribution system and related improvements for fire fighting purposes. The second Draft Task 3 Report developed a conceptual recycled water system for landscape irrigation. The Draft Task 4 Report assessed various long-term supply alternatives and recommended additional water conservation, recycled water, and seawater desalination.

To meet water demand, the CCSD operates wells that draw from local groundwater aquifers along the San Simeon and Santa Rosa Creeks. CCSD's water rights are subject to the regulatory authority of the State Water Resources Control Board (SWRCB), and to a certain extent, conditions imposed under development permits issued by the California Coastal Commission (CCC).

The current water rights diversion permits from the SWRCB allow CCSD to pump a maximum of 1,118 acre-feet (AF) of water during the wet season, and 630 AF of water during the dry season, from both the San Simeon and Santa Rosa Basins. However, the current CCC Development Permit limits the total annual diversion from both creeks to no more than 1,230 AF of water. Additionally, the dry season date, duration, and beginning groundwater levels, limit the actual availability of groundwater from both basins. The *Baseline Water Supply Analysis (2000 Baseline Survey)*, dated December 8, 2000 by Kennedy/Jenks Consultants, developed a system of models based on historical data that projected basin response to increased levels of water demand to determine the adequacy of the groundwater supply. From the model, it was determined that the current groundwater supply was not adequate to provide a 90 or 95 percent level of reliability for water demands greater than 10 percent of the 1999 demands (4,176 residential connections). Thus, the basins cannot reliably meet the increased demands of the waiting list and grandfathered connections (4,650 residential connections) without an additional source of recharge.



The *2000 Baseline Survey* also determined approximately 286 AF of groundwater from the San Simeon Basin, and 201 AF from the Santa Rosa Basin would be available during the dry season. During completion of the *2000 Baseline Survey*, the CCSD's Santa Rosa well field was shut down due to a Methyl Tertiary Butyl Ether (MtBE) plume. The older Santa Rosa wells have remained shut down since, and a new well SR-4 was constructed further upstream. However, since then, SR-4 has only been used sparingly during the dry season due to potential impacts to listed species. The supply availability based on the SWRCB diversion permits issued to CCSD and the *2000 Baseline Survey* is 1,230 AC annually, 286 AC during the dry season, and 944 AC during the wet season.

In addition to the CCC Development Permit annual maximum of 1,230 AF, the dry season operating practice from 2002 raises questions over the reliability of well SR-4 during the dry season due to potential habitat impacts. Because MtBE is still being remediated up gradient from wells SR-1 and SR-3, those wells cannot be relied upon for summertime production. Therefore, it is assumed that the San Simeon Creek basin will be available during the dry season. Thus, a supplemental source is required to further augment the Santa Rosa supply during the summer months.

PROJECTED WATER DEMANDS

The current draft Task 4 *Water Master Plan* report includes an estimate of water needs based on current usage as well as four build-out development scenarios. The four scenarios include existing residential connections plus potential new connections, and consist of a maximum of 6,700 connections, a refined maximum of 5,700 connections, the CCC Development Permit maximum of 5,250 connections, and the previously referenced 4,650 (existing customers plus the existing CCSD wait list). In addition, the report identifies demands for quality of life increases of 10, 20, 30, and 50 percent higher than existing demands identified in the *2000 Baseline Survey*. Assuming either 1.66 or 2.21 residents per household and 90 gallons per capita per day (gpcd), the total annual future demand was projected for each scenario. These population densities are based on 2000 Census data utilizing a 75 percent and 100 percent occupancy rate, respectively. Based on the CCSD Board of Directors' earlier July 24, 2003 motion, and the historical occupancy rate for Cambria averaging 1.66 persons per residence, approximately 602 AF in supplemental water will be needed for 4,650 residences assuming a 50 percent quality of life increase over existing consumption.

WATER SUPPLY ALTERNATIVES

The Task 4 Water Master Plan report completed a preliminary analysis that considered the reliability, barriers to implementation, costs, and advantages of a variety of potential new water sources. Potential water supply alternatives were compiled from a collection of studies conducted over the last twenty years identifying and evaluating potential sources of additional potable water for CCSD. Based on a qualitative screening level evaluation of the potential new water sources, various alternatives were recommended for more detailed evaluation and cost development. Based on the evaluation and recommended goals, it was recommended in the Task 4 Report that CCSD's long-term water supply strategy consist of the following elements:

- ◆ Seawater Desalination;
- ◆ Recycled Water; and
- ◆ Water Demand Management.



These recommended alternatives, along with the proposed Potable Water Distribution System improvements, comprise the Water Master Plan (WMP) components evaluated in this EIR.

2.2 PROJECT CHARACTERISTICS

The CCSD's long-term water supply strategy (i.e., Water Master Plan) is proposed to consist of seawater desalination, recycled water, water demand management, and potable water distribution system improvements. These WMP elements are described as follows:

SEAWATER DESALINATION

In order to provide an additional water supply of up to 602 acre-feet during the dry season, the CCSD proposes to implement seawater desalination. The seawater desalination element consists of constructing a subterranean seawater intake, pumping and pipeline facilities to transport the seawater to a desalination plant, a RO desalination treatment process, a groundwater blending system, and pumping facilities to pump the treated water into the distribution system. Seawater concentrate from the RO process would be conveyed in a separate pipeline to a subterranean system for disbursement back into the groundwater near its junction with the seawater.

Although seawater desalination is one of three primary components of the *Water Master Plan*, the level of analysis under this Program EIR focuses on the WMP's ability to provide a reliable source of water for the community and the potential to cause growth-inducing effects. This Program EIR serves as the master environmental documentation in order to properly tier from the programmatic analysis (refer to *CEQA Guidelines* Section 15152). The project level study for the seawater desalination would provide the comprehensive construction and operations analysis. The study will also be subject to compliance with the *National Environmental Protection Act* (NEPA) Environmental Impact Statement (EIS) requirements due to anticipated federal funding. Thus, a joint EIR/EIS will be prepared specifically for the seawater desalination element. Consistent with NEPA requirements, the EIR/EIS will analyze various alternatives to the facility's location and operations.

The EIR/EIS shall include all elements of building and operating the desalination plant, including, but not limited to any physical operations involved in feasibility studies, and all piping connecting seawater intake and brine discharge to the desalination plant. Best available technology for power, including renewable power sources and state of the art filters shall be specified. The EIR/EIS shall also include a detailed plan for handling and disposal of hazardous materials resulting from the filtration process itself.

RECYCLED WATER SYSTEM

This element would involve utilizing recycled water for irrigation purposes at various locations within Cambria. The use of recycled water to meet non-potable demands would enable CCSD to reduce its potable water demand. CCSD operates a 1.0 million gallon per day (MGD) extended aeration wastewater treatment plant (WWTP), which provides treatment to wastewater from Cambria and the San Simeon State campgrounds. Currently, the treated wastewater effluent is percolated into the ground between the San Simeon well field and the Pacific Ocean to provide a "mound" of fresh water that slows the underflow of the San Simeon Creek aquifer



towards the sea. During the dry summer season, flows through the plant average approximately 650,000 gallons per day (gpd).

During the critical dry season, the CCSD wastewater department estimates that approximately 250,000 gpd is required for percolation into the ground between the well field and ocean to maintain its hydraulic mound operation. This would leave approximately 450,000 gpd available for irrigation and/or seasonal storage of recycled water. However, it is not known how much of the approximately 450,000 gpd provides flow into the nearby lagoon and riparian areas. Therefore, a no net increase approach was developed within the Task 3 Report: Recycled Water analysis to determine how much of the future recycled water use was existing versus new demands. Existing demands would simply shift the use of water from the upstream potable well field to the downstream mound. Therefore, existing demands converted from potable to non-potable recycled water would have no net increase in the volume of water being diverted from the aquifer system. To further lower demands, the use of a proprietary Evaporative Control Systems® (ECS) irrigation system was also analyzed. The ECS system was recently installed at the new Cambria Elementary School.

The WWTP currently provides secondary treatment. Because the treated effluent from the WWTP would be used for unrestricted irrigation, the current level of secondary treatment would need to be upgraded to a disinfected tertiary level of treatment. The list of potential municipal users for the tertiary treated wastewater and demand associated with its use is relatively small, totaling approximately 161 to 184 acre-feet per year (AFY).

A detailed analysis of the recycled water distribution system, including system improvements, pipes, pumps, and reservoirs is presented in Task 3 Report: Recycled Water. The system consists of an advanced treatment process at the existing wastewater plant, two pumping stations, tank storage, and a hydro-pneumatic storage system. The advanced treatment process would include means to reduce salt concentrations to background levels to ensure no degradation to the groundwater would occur from percolation through irrigated areas. The storage tank site and hydro-pneumatic pumping station area is planned for a location behind the Santa Lucia Middle School gymnasium. The hydro-pneumatic pump station would provide recycled water to the existing Santa Lucia Middle School as well as a back-up supply to the new elementary school's ECS system. The storage tanks would provide supply to the lower pressure zone.

WATER DEMAND MANAGEMENT

Demand management would consist of improvements to the current conservation program and regulations to reduce potable water use for landscaping. Although CCSD's current conservation practices have already reduced the average per capita potable water consumption below the state average, more efficient water demand management practices are proposed for further reduction in water consumption.

Future demand management measures may include greater emphasis on landscape irrigation. Such measures may include the addition of rain sensors to ensure irrigation systems shut-off during periods of rain. The installation of evapotranspiration (ET) controllers may also become part of future landscape irrigation efficiency improvement measures.



Water demand management would not have any water quality implications. It would simply allow available water to be used more efficiently. No significant additional infrastructure would be required for this alternative.

POTABLE WATER DISTRIBUTION SYSTEM IMPROVEMENTS

The Task 3 Report: Potable Water addresses system improvements focused on improving fire-fighting capabilities. Fire flows for existing single-family residential areas are being increased from approximately 1,000 gpm to approximately 2,500 gpm, based on recommendations of the Cambria Fire Department. In addition, increases to tank storage volumes are also being recommended as part of the Task 3 Report: Potable Water distribution system analysis.

Three levels of priority projects have been developed for incorporating distribution system improvements as part of a long-term capital improvement plan. To date, the CCSD has been completing the highest priority Level 1 projects, because they provide the greatest improvement to public safety. Priority Level 1 projects in various states of completion include: Pine Knolls Tank Replacement (completed); East-West Ranch Pipeline (completed); Leimert Fire Flow Improvements; and Supervisory Control and Data Acquisition (SCADA). Separate project-specific CEQA clearance documents (Initial Study/Mitigated Negative Declarations) have been prepared on the Pine Knolls Tank project and East-West Ranch Pipeline project. The remaining distribution system improvements projects are in various stages of planning or design.

BUILDOUT REDUCTION PROGRAM

To mitigate the potential for growth-inducing impacts of the proposed Water Master Plan (i.e., the increased water supply and availability), this EIR incorporates a Buildout Reduction Program, as the tool to cap the maximum number of potential water service connections within the CCSD service area to 4,650. To further mitigate the potential for growth-inducing impacts, all future development would be subject to continued compliance with the existing County and CCSD adopted growth management policies.

As stated in the October 12, 2005 Preliminary Draft Buildout Reduction Report and subsequent May 16, 2006 Buildout Reduction Program report presented to the CCSD Board by the Citizens' Buildout Reduction Finance Committee, and pursuant to the mitigation requirements contained in this EIR, the purpose of the Buildout Reduction Program is to ensure long-term demand for residential water connections in Cambria (primarily single-family homes) does not exceed 4,650 existing and new connections. In order to accomplish this, the CCSD would adopt a program to retire or reduce the potential number of residential building sites. The overall goal of the Buildout Reduction Program is to retire and/or merge enough potential building sites in Cambria so that the remaining number of suitable building sites roughly matches the 864 (total) additional outstanding residential water connection commitments that have been previously approved by the CCSD.¹ It would be a voluntary program with a projected 22-year timeframe. Funding would come from four suggested sources: an additional fee for new water connections, a water rate increase, an additional fee for remodels, and sale of some unallocated water connections that fall within the 4,650 existing and future residential connections cap. Local land trusts would sell three unallocated water connections a year over the projected 22-year life of the program, and use the proceeds to purchase and retire potential building sites. Lots would

¹ The proposed desalination plant would be sized for 4,650 residential water connections, making this the maximum number to be permitted in Cambria: 3,786 (existing connections) + 864 (approved additional connections) = 4,650.



be retired with a deed restriction or conservation easement, after which most would be transferred to CCSD. Thus, when Cambria is built-out to that level, there would be only a few available building sites left, with little potential for future growth or development.

The reduction in the number of building sites would be accomplished largely by attrition through existing lot retirement objectives and programs, lot mergers, and by acquiring lots and retiring them. Acquisition would be through donation or purchase, and would be voluntary. No property owner would be forced to sell their land for the purposes of this program. By reducing buildout potential in Cambria, a balance would be maintained between potential growth and the sustained availability of public services and infrastructure.

The incorporated Buildout Reduction Program seeks to support the long range planning goals identified for the North Coast Planning Area, while also maintaining Cambria's appeal by significantly limiting future environmental impacts. In summary, the CCSD must adopt all feasible and legally enforceable measures to mitigate potentially significant environmental impacts. In addition, other governmental agencies that have discretionary approvals for the Water Master Plan, within their authority, condition their approvals on the implementation of the mitigation measures identified in this EIR.

2.3 ENVIRONMENTAL ISSUES AND MITIGATION

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5.1	<p>LAND USE AND RELEVANT PLANNING</p> <p>San Luis Obispo County General Plan</p> <p><i>The Water Master Plan Project could conflict with the land use plan, policies, and regulations set forth in the San Luis Obispo County General Plan.</i></p>	<p>LU-1 The CCSD shall comply with the County, State, and Federal regulatory requirements. Compliance with the following North Coast Area Plan Standards shall be required:</p> <p><i>Cambria Urban Area</i> <u>Community Wide (CW):</u> CW-3 (Limitation on Residential Construction) CW-4 (Limitation on Development) CW-5 (Desalinization Plants) CW-6 (New Residential Land Divisions) CW-8 (Cambria Community Services District Review) CW-15 (Shoreline Development) CW-16 (Santa Rosa Creek Frontage) CW-18 (Fiscalini Ranch) CW-19 (Cambria Commercial Design Plan Included by Reference) CW-20 (Commercial Districts) CW-21 (East-Village Area) CW-22 (Mid-Village Area) CW-23 (West-Village Area) CW-24 (Access Limitation)</p>	<p>Analysis has concluded that impacts would be less than significant following compliance with San Luis Obispo County's regulatory framework.</p>



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CW-25 (Setbacks – Main Street at Pineknolls Drive)

Category Specific (CS):
The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards
Combining Designations (CD):
CD-10 (Site Planning – Development Plan Projects)
CD-11 (Site Design)

Areawide (AW):
AW-7 (Building Height)
AW-8 (Determination of minimum Lot Size and Density of Projects)

Category Specific (CS):
CS(REC)-1 (Permit Requirement)
CS(REC)-6 (Setbacks – Coastal)
The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Coastal Zone Land Use Ordinance

The Water Master Plan Project could conflict with the land use plan, policies, and regulations set forth in the Coastal Zone Land Use Ordinance.

LU-2 The CCSD shall comply with the regulatory requirements of the Coastal Zone Land Use Ordinance (Title 23), including the site design, site development, operational, combining designation, and special use standards.

Analysis has concluded that impacts would be less than significant following compliance with the State and San Luis Obispo County regulatory framework.

LU-3 The CCSD shall obtain a Coastal Development Permit from the California Coastal Commission, pursuant to the provisions of Section 23.03.040(Z) (Coastal Commission Approval Required) for the proposed subterranean seawater intake and seawater concentrate return systems, and associated pipelines that are within the Coastal Commission's original permit jurisdiction.

Cumulative Impacts

The Water Master Plan Project, combined with future development within the North Coast Area, could conflict with applicable land use plans, policies, or regulations.

No mitigation measures are recommended beyond compliance with the State and San Luis Obispo County regulatory requirements on a project-by-project basis.

Analysis has concluded that impacts would be less than significant following compliance with the established State and San Luis Obispo County regulatory framework.



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Future development would be evaluated on a project-by-project basis, in accordance with the San Luis Obispo County General Plan and Coastal Zone Land Use Ordinance.

5.2 AESTHETICS, LIGHT AND GLARE

Short-Term Visual Character

Grading and construction activities associated with the proposed Water Master Plan improvements would temporarily alter the existing visual character/quality of the construction sites and their surroundings.

AES-1 Construction materials and equipment staging areas shall be located away from existing residential uses and, when feasible, appropriate screening (i.e., temporary fencing with opaque material) shall be used to buffer views of the construction site.

Analysis has concluded that impacts would be less than significant following implementation of the recommended mitigation and compliance with San Luis Obispo County regulatory requirements.

AES-2 Temporary construction-related security lighting shall be arranged such that direct rays do not shine on or produce glare for adjacent street traffic and residential uses. The light fixtures specified for the Project design shall comply with the standard of the Illuminating Engineering Society for full cutoff capability.

AES-3 The CCSD shall comply with San Luis Obispo County policies and standards that mitigate construction-related visual impacts, including North Coast Area Plan Standard CW-12 (Landscaping).

Long-Term Visual Character

Implementation of the proposed Water Master Plan improvements could alter the visual character/quality of the sites and their surroundings.

AES-4 The CCSD shall comply with San Luis Obispo County policies and standards that mitigate impacts to the visual character. Compliance with Coastal Plan Policies 2 and 6, and the following North Coast Area Plan Standards shall be required:

Analysis has concluded that a less than significant impact would occur, following compliance with San Luis Obispo County regulatory requirements and implementation of the recommended mitigation.

Cambria Urban Area

Community Wide (CW):

CW-12 (Landscaping)

CW-15 (Shoreline Development)

CW-17 (Site and Project Design Development Within View of Highway One)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.



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Rural Area Standards

Areawide (AW):

AW-5 (Application Contents - Land Divisions)

AW-6 (Site Selection)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Scenic Vistas and Visual Resources

Implementation of the proposed Water Master Plan improvements could impact a scenic vista or resource, including those along Highway 1.

Refer to Mitigation Measure AES-4.

Analysis has concluded that a less than significant impact would occur following implementation of the recommended mitigation and compliance with San Luis Obispo County regulatory requirements.

Long-Term Light and Glare Impacts

The proposed Water Master Plan improvements could create a new source of substantial light and glare, potentially impacting views.

AES-5 Pursuant to Coastal Zone Land Use Ordinance Section 23.04.320 (Outdoor Lights), the CCSD shall comply with lighting standards for all outdoor night-lighting sources regarding:

- ◆ Illumination;
- ◆ Light directed onto lot;
- ◆ Minimization of light intensity;
- ◆ Light sources to be shielded;
- ◆ Ground illuminating lights;
- ◆ Elevated feature illumination;
- ◆ Height of light fixtures; and
- ◆ Street lighting.

With implementation of the recommended mitigation and compliance with San Luis Obispo County regulatory requirements, potential impacts would be reduced to less than significant.

AES-6 Compliance with North Coast Area Plan Standard CW-13 (Exterior Lighting) and relevant CS Standards shall be required.

Cumulative Impacts

The Water Master Plan Project, combined with future development in the North Coast Area, could result in aesthetic, light, and glare impacts.

No mitigation measures are recommended beyond compliance with San Luis Obispo County regulatory requirements on a project-by-project basis.

Compliance with San Luis Obispo County regulatory requirements on a project-by-project basis would reduce cumulative impacts to a less than significant level.



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5.3

TRAFFIC AND CIRCULATION

Short-Term (Construction-Related)

Short-term construction-related activities associated with the Water Master Plan improvements would not cause a traffic increase that would be substantial in relation to the existing capacity of the street system. Construction-related traffic would not cause an exceedance of an established level of service standard. Access and circulation at the construction sites would be temporarily disrupted.

TC-1 The CCSD shall comply with San Luis Obispo County and State regulatory requirements. Compliance with County Code Section 13.08.070 (Safety Requirements) and Section 15.610.020 (Notice to Public of Temporary Restriction of Use of or Temporary Closing of Highway) shall be required.

Analysis has concluded that a less than significant impact would occur following compliance with the established San Luis Obispo County and State regulatory framework.

Long-Term (Operational)

The proposed Water Master Plan improvements would not cause a significant increase in traffic when compared to the existing capacity of the street system and would not cause an exceedance of an established level of service standard.

No mitigation measures are recommended, beyond compliance with the established regulatory requirements.

Analysis has concluded that a less than significant impact would occur in this regard.

Cumulative Impacts

The proposed Water Master Plan improvements would generate a negligible volume of traffic, therefore, would not cause a cumulatively significant increase in traffic when compared to the existing capacity of the street system, and would not exceed an established level of service standard.

No mitigation measures are recommended, beyond compliance with the established regulatory requirements on a project-by-project basis.

Analysis has concluded that a less than significant impact would occur in this regard.

5.4

AIR QUALITY

Short-Term Construction Emissions

Short-term emissions during site preparation and construction of the proposed Water Master Plan improvements would result in air quality impacts.

AQ-1 The CCSD shall implement the following Best Available Control Technology (CBACT) for diesel-fueled construction equipment, where feasible:

Analysis has concluded that impacts would be less than significant following compliance with APCD's permitting requirements and implementation of the recommended mitigation.

- ◆ Maintain all construction equipment in proper tune according to manufacturer's specifications.
- ◆ Fuel all off-road and portable diesel powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, with CARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).



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- ◆ Maximize to the extent feasible, the use of diesel construction equipment meeting the CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines.
 - ◆ Install diesel oxidation catalysts (DOC), catalyzed diesel particulate filters (CDPF) or other District approved emission reduction retrofit devices (the number of catalysts or filters required and the equipment on which they should be installed shall be determined in consultation with APCD).
 - ◆ Electrify equipment where feasible.
 - ◆ Develop and implement a Diesel Emission Control Plan (DECP) that describes the diesel emission controls to be used during construction and specifies the use of DOCs and CDPFs, in consultation with APCD prior to the start of construction.
 - ◆ Substitute gasoline powered for diesel-powered equipment, where feasible.
 - ◆ Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.
 - ◆ Use equipment that has Caterpillar pre-chamber diesel engines.
- AQ-2 The CCSD shall implement the following Dust Control Measures during construction, where feasible:
- ◆ Construction truck trips shall be scheduled, to the extent feasible, to occur during non-peak hours.
 - ◆ The amount of disturbed area shall be minimized and on-site vehicle speeds shall be reduced to 15 mph or less.
 - ◆ Water trucks or sprinkler systems shall be used in sufficient



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quantities during construction to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (nonpotable) water should be used.

- ◆ If stockpiling of fill material is involved, soil that is stockpiled for more than two days shall be covered, kept moist, or treated with soil binders daily to prevent dust generation.
- ◆ All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer).
- ◆ Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- ◆ Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- ◆ Future construction projects subject to the *California Environmental Quality Act* (CEQA) shall address potential diesel particulate matter toxic impacts related to construction activity.

AQ-3 Short-term construction emissions for the proposed desalination system shall be modeled utilizing the most recent URBEMIS or CARB approved model, to determine whether construction emissions would exceed APCD thresholds of 2.5 tons per quarter of ROG, NO_x, and PM₁₀ emissions. If emissions exceed the above noted thresholds, mitigation measures shall be required to reduce the emission levels.



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Long-Term Operational Emissions

Long-term mobile and area source emissions from the proposed Water Master Plan improvements could impact air quality, potentially exceeding AQMD thresholds for criteria pollutants.

AQ-4 The CCSD shall comply with Rule 417 (Control of Fugitive Emissions of Volatile Organic Compounds) regarding requirements for leak rates, and inspection and maintenance programs, and Rule 431 (Stationary Internal Combustion Engines) regarding limitations on NOX and CO emissions from stationary internal combustion engines.

Analysis has concluded that impacts would be less than significant following compliance with APCD requirements and implementation of the recommended mitigation.

AQ-5 Long-term operational emissions for the proposed desalination system shall be modeled utilizing the most recent URBEMIS computer model or CARB approved model, to determine whether operational emissions would exceed APCD thresholds. If the seawater desalination facility emissions of ROG, NO_x, SO₂, and PM₁₀ are less than 10 pounds per day (lbs/day) and CO emissions are less than 50 lbs/day, impacts shall be considered less than significant and no mitigation measures shall be required. If emissions of any of ROG, NO_x, SO₂, or PM₁₀ were estimated at 10 to 24 lbs/day, Tier 1 mitigation measures would be required. If emissions of ROG, NO_x, SO₂, or PM₁₀ cannot be reduced to less than 25 lbs/day or CO emissions cannot be reduced to less than 550 lbs/day, Tier 2 and Tier 3 mitigation measures shall be required. If CO emissions exceeded 550 lbs/day, CO concentrations should be modeled to determine whether or not the Project would cause an exceedance of the Federal or State standard.

AQ-6 If the seawater desalination plant has the potential to emit toxic or hazardous air pollutants, the CCSD shall prepare a risk assessment to determine the potential level of risk associated with plant operations. Pursuant to the requirements of California Health and Safety Code Section 42301.6 (AB 3205) and Public Resources Code Section 21151.8, subd. (a)(2), if the Project site is located within 1,000 feet of a school, it shall be referred to the District for review.



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- AQ-7 If electricity for the seawater desalination plant is not purchased from the power grid, further air quality analysis shall be conducted for on-site engines or pumps that are natural gas or diesel fired.
- AQ-8 To meet the GHG reduction goals of Executive Order S-1-07, the project level EIR/EIS for the desalination project shall include an analysis on the use of renewable power sources to offset electrical demands.

Air Quality Conformance Analysis

The proposed Water Master Plan improvements would not conflict with or obstruct implementation of the AQMD, CEQA, Federal Conformity Guidelines, San Luis Obispo County General Plan, or the 2004 Ozone Attainment Plan.

No mitigation measures are recommended.

Analysis has concluded that a less than significant impact would occur in this regard.

Cumulative Emissions

The Water Master Plan Project, combined with future development within the North Coast Area, could result in cumulatively significant air emissions.

Refer to Mitigation Measures AQ-1 and AQ-8.

Analysis has concluded that a less than significant cumulative impact would occur.

5.5 NOISE

Short-Term Construction Noise Impacts

Grading and construction associated with the Water Master Plan improvements could expose persons to or generate noise levels in excess of standards established in San Luis Obispo County's Noise Element or Noise Ordinance. Additionally, the Water Master Plan improvements could result in temporary/periodic increases in ambient noise levels.

- NOI-1 Construction activities shall comply with San Luis Obispo County Code Section 23.06.042 (Exceptions to Noise Standards), which prohibits construction activities before 7:00 AM or after 9:00 PM any day except Saturday or Sunday, or before 8:00 AM or after 5:00 PM on Saturday or Sunday.
- NOI-2 The contractor shall site all stationary noise-generating construction equipment, as far as possible from nearby noise-sensitive receptors. Where feasible, noise-generating construction equipment shall be shielded from nearby noise-sensitive receptors by noise-attenuating buffers. Stationary noise sources located within 1,000 feet of noise-sensitive receptors shall be equipped with noise reducing engine housings. Portable acoustic barriers shall be placed around noise-generating equipment that is located less than

Following compliance with San Luis Obispo County Code requirements and implementation of the recommended mitigation, impacts are concluded to be less than significant.



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200 feet from noise sensitive receptors.

NOI-3 The contractor shall provide sound control devices on construction equipment powered by gasoline or diesel engines, which are at least as effective as those provided by the original equipment manufacturer (OEM). No equipment shall be permitted to have an un-muffled exhaust.

NOI-4 Noise-generating mobile equipment and machinery shall be turned-off when not in use.

NOI-5 Residences within 1,000 feet of a construction area shall be notified of the construction schedule in writing, prior to construction. The contractor shall designate a noise disturbance coordinator who shall be responsible for responding to complaints regarding construction noise. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance coordinator shall be conspicuously placed on construction site fences and written into the construction notification schedule sent to nearby residences.

NOI-6 The following measures shall be implemented for all drilling activities associated with the proposed seawater desalination system:

- ◆ During construction, noise blankets shall be used to fully enclose equipment associated with tunneling, if habitable structures or businesses are located within 500 feet of the construction site.

- ◆ The equipment engine shall be covered and the contractor shall ensure that mufflers are in good working condition.

Long-Term Operational Noise

Operations and maintenance activities associated with the proposed Water Master Plan improvements could expose persons to

NOI-7 Future water facilities shall be subject to compliance with San Luis Obispo County Code Sections 23.06.044

Analysis has concluded that implementation of the recommended mitigation and



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or generate noise levels in excess of San Luis Obispo County Noise Element or Noise Ordinance standards. Additionally, the Water Master Plan improvements could result in permanent increases in ambient noise levels.

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- through 23.06.050, which establish standards for acceptable exterior and interior noise levels and describe how noise is to be measured.
- compliance with San Luis Obispo County Code requirements would reduce impacts to less than significant.
- NOI-8 Pump stations located within 500 feet of sensitive receptors (i.e., residential homes, schools, or hospitals) shall be designed to not exceed the 50 dBA at the sensitive receptor property line, per San Luis Obispo County noise standards. (Note that these noise limitations are for steady-state, base load operations, and exclude startups, shutdowns, and off-normal or emergency conditions.)
- NOI-9 Prior to development permit approval, a subsequent noise assessment shall be prepared that evaluates the exterior noise impacts from the pump stations proposed within 500 feet of sensitive receptors. Said assessment shall demonstrate that adequate noise mitigation is provided to ensure that San Luis Obispo County standards are met, based on the actual pad elevations, and building and pump designs. The following noise attenuation features shall be implemented, as needed:
- ◆ Enclosing the pump within a concrete and masonry building that is fully grouted, with appropriate wall thickness.
 - ◆ Installing sound attenuating panel insulation on the roof.
 - ◆ Providing a ventilation system designed to mitigate the noise from normal pump operation.
 - ◆ To the extent possible, the pump stations shall be oriented away from the nearest noise sensitive receptor.
- NOI-10 To the extent possible, mechanical equipment and other seawater processing equipment shall be oriented away from the nearest noise sensitive receptor or be installed with a noise shield around the equipment to provide the proper acoustical shielding.



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NOI-11 Prior to issuance of any grading permit for the seawater desalination plant, an acoustical analysis report and appropriate plans shall be prepared, describing the plant's stationary noise generation potential and noise mitigation measures (such as the installation of double walls, sound absorbing materials, acoustic barriers, sound control curtains, and sound baffles) to ensure that stationary noise equipment levels do not exceed San Luis Obispo County's noise standard of 50 dBA, at the nearest sensitive receptor property line.

Cumulative Impacts

The Water Master Plan Project, combined with future development within the North Coast Area, could increase the ambient noise levels. The impacts and mitigation measures would be determined on a project-by-project basis.

No mitigation measures are recommended beyond compliance with San Luis Obispo County regulatory requirements on a project-by-project basis.

Compliance with San Luis Obispo County regulatory requirements on a project-by-project basis would reduce cumulative impacts to a less than significant level.

5.6 BIOLOGICAL RESOURCES

Short-Term Construction

Construction activities associated with the proposed Water Master Plan improvements could impact sensitive plant and wildlife species.

BIO-1 If construction activities occur during the breeding season for migratory birds (typically considered to be March 15 through August 15), then a nesting bird survey shall be conducted prior to construction.

BIO-2 Although physical disturbance of nesting areas of Special Status Species is not anticipated during nesting seasons, if construction during the nesting season cannot be avoided and special status species are found to occur within 500 feet of the construction boundary, sound barriers shall be required to reduce noise levels generated during construction to acceptable levels (less than 60 dBA). Monitoring of noise levels during Project construction shall be required.

BIO-3 The conceptual pipeline layouts shall be refined to further avoid potential impacts to the wildlife corridors by limiting their installation to previously disturbed and existing paved street areas, wherever feasible. The piping layouts shall also incorporate

Analysis has concluded that impacts would be reduced following compliance with San Luis Obispo County Code and North Coast Area Plan standards, and State and Federal regulatory requirements, and implementation of the recommended mitigation.



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trenchless construction technology to further limit potential impacts to corridors, wherever feasible.

BIO-4 Any graded areas within or immediately adjacent to riparian areas shall be landscaped, as soon after construction as feasible, with appropriate native species. Grading and construction activities shall be carried out in such a manner that sediments and debris do not enter the local creeks.

BIO-5 Compliance with the following North Coast Area Plan Standards shall be required:

Cambria Urban Area

Public Service Program:

Program 11 (Water Master Plan for Cambria)

Combining Designations (CD):

CD-1 (Monterey Pine Forest Habitat (SRA) (TH) - Purpose)

CD-3 (Santa Rosa Creek (FH))

Community Wide (CW):

CW-1 (Marine Habitat Protection - Projects with Point-Source Discharges)

CW-4 (Limitation on Development)

CW-10 (Site Review)

CW-12 (Landscaping)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area

Combining Designations (CD):

CD-10 (SRA) (Site Planning - Development Plan Projects)

CD-11 (SRA) (Site Design)

CD-13 (Monterey Pine Forest SRA) Clustering)

CD-14 (Monterey Pine Forest SRA) Tree Preservation)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.



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- BIO-6 Prior to construction, a biologist shall determine whether the American badger is present on the seawater desalination plant construction site. If an active burrow is found within the construction zone, in coordination with the California Department of Fish and Game, the burrow shall be excavated by hand during grading activities to ensure that no American badgers are buried or otherwise harmed by construction equipment. If an American badger is found, it shall be allowed to escape to other tunnels it is likely to have outside the disturbance area.
- BIO-7 Prior to construction, a qualified wildlife biologist shall search the seawater desalination plant site and construction area for red-legged frogs and southwestern pond turtles to confirm that no individuals of these species occur on the site. If any individuals of these species are found, they shall be relocated to nearby habitat.
- BIO-8 If compact cobwebby thistle is removed as a result of the proposed Project, the species shall be reestablished, in accordance with standard mitigation measures to be determined by a qualified botanist, in coordination with the CCSD and San Luis Obispo County, which is to include revegetation sites and ratios.

Sensitive Plant and Wildlife Species

Implementation of the proposed Water Master Plan improvements could impact sensitive plant and wildlife species.

- BIO-9 Compliance with provisions of Coastal Zone Land Use Ordinance Section 23.07.170 (Environmentally Sensitive Habitats) is required. Such provisions apply to development proposed within or adjacent to (within 100 feet of the boundary of) an environmentally sensitive habitat as defined by Chapter 23.11 of the coastal Zone Land Use Ordinance, and as mapped by the Land Use Element Combining Designation Maps.
- BIO-10 Prior to study of the habitat issues and related geohydrology shall be conducted for the recycled water component to further validate the volume of recycled water available

Analysis has concluded that impacts would be reduced following compliance with San Luis Obispo County, State, and Federal regulatory requirements and implementation of the recommended mitigation.



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during the summer irrigation season and determine the potential impacts to nearby lagoon and riparian areas.

Refer also to Mitigation Measures BIO-1 through BIO-8.

Sensitive Habitats and Resource Areas

Implementation of the proposed Water Master Plan improvements could adversely impact a riparian habitat or other sensitive natural community.

Refer to Mitigation Measures BIO-1 through BIO-10.

Analysis has concluded that impacts would be reduced with implementation of the recommended mitigation and compliance with North Coast Area Plan and Coastal Zone Land Use Ordinance standards.

Jurisdictional Waters or Resources

Implementation of the proposed Water Master Plan improvements could impact wetlands or other jurisdictional waters of the U.S.

BIO-11 Water Master Plan improvements shall incorporate compensatory mitigation for the loss of wetland or riparian function and values in compliance with the applicable regulatory programs, if necessary. Mitigation shall take one or more of the following forms: (1) avoidance or minimization of impacts; (2) compensation in the form of habitat creation; or (3) compensation through participation in a mitigation bank. The first type of mitigation (avoidance or minimization of impacts) is preferred by the agencies and shall be investigated to the maximum extent possible. For any future WMP projects that impact riparian vegetation, it is preferred by the agencies that compensation through the creation of habitat be performed on-site and in kind (i.e., riparian woodland for riparian woodland; sandy bottom for sandy bottom). At the minimum, mitigation for jurisdictional impacts shall be at a 1:1 ratio; however, the exact requirements of any special permit conditions established for future projects shall be dictated by regulatory agencies, primarily the U.S. Army Corps of Engineers or the California Department of Fish and Game, following review of the formally submitted project application.

Analysis has concluded that impacts would be reduced with implementation of the recommended mitigation and compliance with Federal, State, and San Luis Obispo County regulatory requirements.



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BIO-12 Compliance with Coastal Zone Land Use Ordinance Section 23.07.172 (Wetlands) is required. Development proposed within or adjacent to (within one hundred feet of the upland extent of) a wetland area shown on the environmentally sensitive habitat maps shall satisfy the requirements of Section 23.07.172 to enable issuance of a land use or construction permit.

Refer also Mitigation Measures BIO-1 through BIO-10.

Wildlife Corridors

Implementation of the proposed Water Master Plan improvements could interfere with established wildlife corridors.

BIO-13 The conceptual pipeline layouts illustrated on Exhibit 3-2 (Preliminary Seawater Desalination Facilities) shall be refined to further avoid potential impacts by limiting their installation to previously disturbed and existing paved street areas, wherever feasible. The piping layouts shall also incorporate trenchless construction technology to further limit potential impacts to the wildlife corridors, wherever feasible.

Refer also to Mitigation Measures BIO-1 through BIO-12.

Analysis has concluded that impacts would be reduced following implementation of the recommended mitigation and compliance with San Luis Obispo County regulatory requirements.

Cambria Forest Management Plan

Implementation of the proposed Water Master Plan improvements could conflict with the provisions of the Cambria Forest Management Plan.

Refer to Mitigation Measure BIO-1 through BIO-10.

Analysis has concluded that impacts would be reduced with implementation of the recommended mitigation and compliance with the North Coast Area Plan and Coastal Zone Land Use Ordinance standards.

Cumulative Impacts

The Water Master Plan Project, combined with future development in the North Coast Area, could adversely affect the area's biological resources.

No mitigation measures are recommended beyond compliance with the Federal, State, and County regulatory requirements on a project-by-project basis.

Following implementation of the recommended mitigation and compliance with Federal, State, and County regulatory requirements, on a project-by-project basis, impacts would be reduced.



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5.7 CULTURAL RESOURCES

Archaeological/Historical Resources

Implementation of the proposed Water Master Plan improvements could cause an adverse change in the significance of an archaeological and/or historical resource.

CUL-1 The CCSD shall comply with Coastal Zone Land Use Ordinance Sections 22.07.102, 22.10.040, and 23.05.036, and CZLUE archaeological policies, which pertain to permitting requirements for construction activities within a historic site combining designation or when cultural resources are discovered.

Implementation of the recommended mitigation and compliance with San Luis Obispo County standards, would reduce impacts to a less than significant level.

CUL-2 Compliance with the following North Coast Area Plan Standards shall be required:

Cambria Urban Area

Combining Designations (CD):

CD-4 (Historical Preservation (H))

Community Wide (CW):

CW-14 (Archaeological Resource Protection)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Paleontological Resources

Implementation of the proposed Water Master Plan improvements could cause an adverse change in the significance of a paleontological resource.

Refer to Mitigation Measure CUL-1 and CUL-2.

Implementation of the recommended mitigation and compliance with San Luis Obispo County standards would reduce impacts to a less than significant level.

Burial Sites

Implementation of the proposed Water Master Plan improvements is not anticipated to disturb unknown locations of human remains.

CUL-3 The CCSD shall comply with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the California Public Resources Code, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be considered less than significant.

Implementation of the recommended mitigation and compliance with State regulatory requirements would reduce impacts to a less than significant level.



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Cumulative Impacts

The Water Master Plan Project, combined with future development in the North Coast Area, could adversely affect cultural resources.

No mitigation measures are recommended beyond compliance with the established County, State, and Federal regulatory requirements on a project-by-project basis.

Compliance with State and San Luis Obispo County regulatory requirements would reduce impacts to a less than significant level.

Resources would be evaluated and mitigated on a project-by-project basis.

5.8 GEOLOGY AND SOILS

Seismic Hazards

Implementation of the proposed Water Master Plan improvements could expose people/structures to potential risks involving fault rupture, strong seismic ground shaking, ground failure/liquefaction, landslides, or tsunamis.

GEO-1 The CCSD shall comply with San Luis Obispo County's Building and Construction Ordinance (Title 19) regarding site preparation, construction activities, quality of materials, occupancy classifications, and the location and maintenance of buildings and structures. All future water facility improvements shall also comply and Coastal Zone Land Use Ordinance Section 23.07.080, requiring preparation of a geotechnical study for projects within a Geology Study Area.

Implementation of the recommended mitigation and compliance with State and San Luis Obispo County regulatory requirements would reduce impacts to a less than significant level.

GEO-2 Compliance with the following North Coast Area Plan Standards shall be required:

Cambria Urban Area
Community Wide (CW):
CW-15 (Shoreline Development)

Category Specific (CS):
The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards
Category Specific (CS):
The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Erosion and Sedimentation

Implementation of the proposed Water Master Plan improvements could result in soil erosion or sedimentation impacts.

GEO-3 The CCSD shall comply with the NPDES regulatory requirements, and San Luis Obispo County's SWPPP (including implementation of BMPs) and Coastal Zone Land Use Ordinance Sections 23.05.022 through 23.05.039, which establish standards for grading and excavation

Analysis has concluded that impacts would be less than significant following compliance with NPDES regulatory requirements, the San Luis Obispo County Stormwater Pollution Prevention Plan, and Coastal Zone Land Use



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activities to minimize hazards to life and property, protect against erosion and the sedimentation of watercourses, and protect the safety, use, and stability of public rights-of-way and drainage channels. All future water facility improvements shall also comply with Coastal Zone Land Use Ordinance Sections 23.07.160 et. seq., which establish additional standards for grading within a sensitive resource area.

Ordinance and North Coast Area Plan Standards.

GEO-4 Pursuant to Code Section 23.04.118 (All Blufftop Setbacks), new development or expansion of existing uses proposed to be located adjacent to a beach or coastal bluff shall be located in accordance with the setbacks provided by this section.

GEO-5 Compliance with the following North Coast Area Plan Standards shall be required:

Cambria Urban Area
Community Wide (CW):
CW-11 (Erosion Control)
CW-15 (Shoreline Development)

Category Specific (CS):
The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards
Category Specific (CS):
The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Cumulative Impacts

The Water Master Plan Project improvements, combined with future development within the North Coast Area, could expose people or structures to potential adverse effects involving seismic hazards, and could result in substantial soil erosion.

No mitigation measures are recommended beyond compliance with the established regulatory requirements on a project-by-project basis.

Cumulative impacts would be less than significant following compliance with Federal, State, and San Luis Obispo County regulatory requirements, and implementation of recommended mitigation on a project-by-project basis.



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5.9 HYDROLOGY AND WATER QUALITY

Storm Water Quality – Construction

Grading, excavation, and construction activities associated with the proposed Water Master Plan improvements could impact storm water quality due to sheet erosion of exposed soils and subsequent deposition of particles and pollutants in drainage areas.

HYD-1 The CCSD shall comply with the relevant Federal, State, and San Luis Obispo County guidelines and standards, including the NPDES regulatory requirements and implementation of BMPs, the County's SWPPP, and the Coastal Zone Land Use Ordinance (Sections 23.05.022 through 23.05.039 regarding grading and excavation activities, Section 23.07.160 regarding grading within a sensitive resource area, and Section 23.05.036 regarding sedimentation and erosion control).

Impacts are considered less than significant following compliance with Federal, State, and San Luis Obispo County regulatory requirements.

HYD-2 Compliance with the following North Coast Area Plan Standards shall be required:

Cambria Urban Area

Community Wide (CW):

CW-1 (Marine Habitat Protection - Projects with Point-Source Discharges)

CW-11 (Erosion Control)

CW-15 (Shoreline Development)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Hydrology and Drainage

Implementation of the proposed Water Master Plan improvements could alter the existing drainage pattern or the rate/amount of surface runoff at the development sites.

HYD-3 Unless exempted by San Luis Obispo County Engineer, all proposed Water Master Plan components shall prepare a drainage plan that provides protection from storm water runoff. The CCSD shall also comply with the Federal, State, and County guidelines and standards, including the NPDES regulatory requirements and implementation of BMPs, the County's SWPPP, and Coastal Zone Land Use Ordinance (Sections 23.05.022 through 23.05.039

Impacts are considered less than significant following compliance with Federal, State, and San Luis Obispo County regulatory requirements.



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regarding grading and excavation activities, Section 23.07.160 regarding grading within a sensitive resource area, Section 23.05.036 regarding sedimentation and erosion control, and Sections 23.05.040 through 23.05.050 regarding drainage plans).

HYD-4 Compliance with the following North Coast Area Plan Standards shall be required:

Cambria Urban Area

Combining Designations (CD):

CW-2 (Flood Hazard (FH))

CW-3 (Santa Rosa Creek (FH))

Community Wide (CW):

CW-15 (Shoreline Development)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Refer also to Mitigation Measure HYD-1 and HYD-2.

Storm Water Quality – Long-Term

Implementation of the proposed Water Master Plan improvements could result in long-term impacts to the quality of storm water and urban runoff.

Refer to Mitigation Measures HYD-1 and HYD-2.

Impacts would be reduced to less than significant following compliance with Federal, State, and San Luis Obispo County regulatory requirements.

The proposed Desalination Facility could impact the quality of ocean water.

Flooding

Implementation of the proposed Water Master Plan improvements could expose people or structures to risk involving flooding.

Refer to Mitigation Measures HYD-3 and HYD-4.

Impacts would be reduced to less than significant levels following compliance with San Luis Obispo County Coastal Zone Land Use Ordinance and North Coast Area Plan standards, and the Cambria Flood Control project.



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	Cumulative Impacts		
	<p><i>The Water Master Plan Project, combined with future development within the North Coast Area, could result in increased drainage, storm water quality impacts, and risk of flooding.</i></p>	<p>No mitigation measures are recommended beyond compliance with the established regulatory requirements on a project-by-project basis.</p>	<p>Compliance with the Federal, State, and San Luis Obispo County regulatory framework on a project-by-project basis, would reduce potential impacts to less than significant levels.</p>
5.10	PUBLIC HEALTH AND SAFETY		
	Hazardous Materials		
	<p><i>Implementation of the proposed Water Master Plan improvements would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or conditions involving accidental release of hazardous materials. The proposed Project would not create a significant hazard to the public or the environment by being located on a site, which is included on a list of hazardous materials sites.</i></p>	<p>PHS-1 Prior to implementation of the proposed Water Master Plan improvements, qualified personnel shall conduct, as needed, a formal Phase I Environmental Site Assessment following the most recent Standards of the American Society for Testing and Materials.</p> <p>PHS-2 Plant operations at the existing WWTP and the proposed seawater desalination plant shall be subject to San Luis Obispo County EHD regulations regarding storage and reporting of hazardous materials, pursuant to State and Federal requirements. The CCSD shall comply with relevant County, State, and Federal regulatory requirements regarding hazardous materials.</p>	<p>A less than significant impact is anticipated following implementation of the recommended mitigation, and compliance with the San Luis Obispo County and State regulatory framework.</p>
	Recycled Water/Wastewater Treatment Plant		
	<p><i>Implementation of the proposed Water Master Plan improvements could create a risk to the public from exposure to recycled water.</i></p>	<p>PHS-3 The CCSD shall comply with relevant Federal, State, and San Luis Obispo County regulatory requirements regarding the use of recycled water, including California Water Code (Division 7) and California Administrative Code (Titles 17 and 22) regarding production, discharge, distribution, and use of recycled water.</p>	<p>Compliance with the Federal, State, and San Luis Obispo County regulatory requirements would result in less than significant impacts.</p>
	Local Hazard Mitigation Plan		
	<p><i>Implementation of the proposed Water Master Plan improvements would not impair implementation of or physically interfere with the San Luis Obispo County Local Hazard Mitigation Plan.</i></p>	<p>PHS-4 To prevent closure of Highway 1, piping shall be bored and jacked under the Highway, wherever feasible.</p> <p>PHS-5 The CCSD shall comply with San Luis Obispo County Code requirements, including Code Section 13.08.070 (Safety Requirements) and</p>	<p>Compliance with the State and San Luis Obispo County regulatory requirements would result in less than significant impacts.</p>



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Section 15.610.020 (Notice to Public of Temporary Restriction of Use of or Temporary Closing of Highway) regarding the placement of adequate warning signs and devices, and the County's Local Hazard Mitigation Plan.

Wildland Fires

Implementation of the proposed Water Master Plan improvements would not expose people or structures to a significant risk involving wildland fires. The increased availability and reliability of water resulting from implementation of the proposed Project is considered a beneficial impact.

PHS-6 Compliance with the following North Coast Area Plan Standards shall be required:

A beneficial impact is concluded in this regard.

Cambria Urban Area

Community Wide (CW):

CW-4 (Limitation on Development)

CW-12 (Landscaping)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Cumulative Impacts

The Water Master Plan Project, combined with future development within the North Coast Area, could increase the public's exposure to hazardous substances and/or wildland fires.

No mitigation measures are recommended beyond compliance with the established regulatory requirements on a project-by-project basis.

Compliance with Federal, State, and San Luis Obispo County regulatory requirements on a project-by-project basis, would reduce cumulative impacts to a less than significant level.

5.11 PUBLIC SERVICES AND UTILITIES

Fire Protection

Implementation of the proposed Water Master Plan improvements would not directly impact existing fire protection services or require new facilities. The proposed improvements would directly benefit fire protection by increasing available fire flows and fire storage. The increase in residential connections would increase the demand for fire protection services, potentially requiring new or modified existing facilities.

PSU-1 The CCSD shall comply with State and County Codes and Ordinances regarding fire and safety requirements, including the California Fire Code and the San Luis Obispo County Building and Construction Ordinance (Title 19 of the San Luis Obispo County Code).

Implementation of the recommended mitigation measures and compliance with State and San Luis Obispo County Fire Code and North Coast Area Plan provisions, would reduce impacts to less than significant.

PSU-2 The CCSD shall comply with the following North Coast Area Plan Standards:



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Cambria Urban Area

Community Wide (CW):

CW-4 (Limitation on Development)

CW-9 (Cambria Fire Department Review)

CW-12 (Landscaping)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards

Category Specific (CS): The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Police Protection

Implementation of the proposed Water Master Plan improvements would not directly impact existing police protection services or require new facilities. The increase in residential connections would increase the demand for police protection services, potentially requiring new or modified existing facilities.

PSU-3 Prior to submittal of land use and building permit applications to San Luis Obispo County, the CCSD shall review the development applications to ensure that police, schools, parks/recreation, and solid waste facilities, services, and resources are adequate to support the increased demands associated with new development.

With implementation of the recommended mitigation and compliance with North Coast Area Plan standards, impacts would be reduced to less than significant.

PSU-4 The CCSD shall comply with the following North Coast Area Plan Standards:

Cambria Urban Area

Community Wide (CW):

CW-4 (Limitation on Development)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Schools

Implementation of the proposed Water Master Plan improvements would not directly impact existing schools or require new facilities. The

Refer to Mitigation Measures PSU-3 and PSU-4.

Implementation of the recommended mitigation and compliance with North Coast



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increase in residential connections would increase the demand for school facilities potentially requiring new or modified existing facilities.

Area Plan standards would reduce impacts to less than significant.

Parks and Recreation Services

Implementation of the proposed Water Master Plan improvements would not create a demand for new recreational facilities. The increase in residential connections would increase the demand for parks and recreation services potentially requiring new or modified existing facilities. The proposed seawater desalination facility would result in temporary construction-related impacts to the State campgrounds and shoreline access.

Refer to Mitigation Measures PSU-3 and PSU-4.

Less than significant impacts would occur following implementation of the recommended mitigation and compliance with the North Coast Area Plan standards.

Wastewater

Implementation of the proposed Water Master Plan improvements would not directly impact the capacity at the existing Wastewater Treatment Plant. The increase in residential connections would increase wastewater generation.

PSU-5 The CCSD shall comply with the following North Coast Area Plan Standards:

With implementation of the recommended mitigation and compliance with North Coast Area Plan standards, impacts would be reduced to less than significant.

Cambria Urban Area Community Wide (CW):

CW-2 (Reservation of Service Capacity)

CW-3 (Limitation on Residential Construction)

CW-4 (Limitation on Development)

CW-8 (Cambria Community Services District Review)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area Standards

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Solid Waste

Implementation of the proposed Water Master Plan improvements would not directly impact landfill capacity. The increase in residential connections would increase solid waste generation.

Refer to Mitigation Measures PSU-3 and PSU-4.

With implementation of the recommended mitigation and compliance with State and San Luis Obispo County regulatory requirements, impacts would be reduced to than significant.



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Cumulative Impacts

The Water Master Plan Project, combined with future development within the North Coast Area, would result in an increase in the demand for fire and police protection services, and increased student, wastewater, and solid waste generation. Modifications to existing facilities or development of new facilities may be required.

No mitigation measures are recommended beyond compliance with the established regulatory requirements on a project-by-project basis.

Future development would be evaluated and mitigation recommended on a project-by-project basis. Compliance with the State and County Code, and North Coast Area Plan standards would be required.

5.12 WATER RESOURCES

Surface and Groundwater Supplies

Implementation of the proposed Water Master Plan improvements would affect available surface and groundwater supplies. The Water Master Plan Project would not cause substantial depletion of groundwater supplies or substantial interference with groundwater recharge.

WR-1 The CCSD shall comply with all relevant Federal, State, and County requirements; refer also to Section 5.9 (Hydrology and Water Quality) and Section 5.10 (Public Health and Safety).

Impacts are considered less than significant with adherence to the State and San Luis Obispo County regulatory requirements.

WR-2 Unless otherwise permitted by future State regulatory policy amendments, to not exceed background aquifer concentrations, nanofiltration (low pressure reverse osmosis) or other suitable means shall be implemented to reduce the TDS concentration of recycled water as part of the treatment train process.

WR-3 The CCSD shall comply with the following North Coast Area Plan Standards:

Cambria Urban Area

Public Service Program:
Program 11 (Water Master Plan for Cambria)

Community Wide (CW):

- CW-2 (Reservation of Service Capacity)
- CW-4 (Limitation on Development)
- CW-5 (Desalinization Plants)
- CW-8 (Cambria Community Services District Review)

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to Chapter 7 (Planning Area Standards) of the NCAP.

Rural Area

Category Specific (CS):

The CS Standards that are specific to each land use category; refer to



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Chapter 7 (Planning Area Standards) of the NCAP.

Potable Water Quality

Implementation of the proposed Water Master Plan improvements would not violate any potable water quality standards.

WR-4 The CCSD shall comply with all relevant Federal, State (DHS), and San Luis Obispo County requirements regarding potable water quality, including drinking water regulations governing the treatment requirements for utilization of the groundwater source as potable water and all Primary and Secondary MCLs.

A less than significant impact is anticipated following compliance with the Federal, State, and San Luis Obispo County regulatory framework.

Water Treatment Facilities

The Water Master Plan proposes modifications to the existing wastewater treatment plant and construction of a new seawater desalination facility.

Refer to the mitigation measures outlined in Section 8.0 (Inventory of Mitigation Measures).

A less than significant impact is anticipated following implementation of the recommended mitigation and compliance with the regulatory framework.

Cumulative Impacts

The Water Master Plan Project, combined with future development in the North Coast Area, could result in impacts to water resources.

No mitigation measures are recommended beyond compliance with Federal, State, and San Luis Obispo County regulatory requirements on a project-by-project basis.

Compliance with Federal, State, and San Luis Obispo County regulatory requirements on a project-by-project basis would reduce cumulative impacts to a less than significant level.

5.13 POPULATION, HOUSING AND GROWTH

Growth-Inducing Impacts

Implementation of the proposed Water Master Plan could foster population growth in Cambria, which would be consistent with population growth projections anticipated in the North Coast Area Plan.

PHG-1 The CCSD shall adopt a Buildout Reduction Program consistent with the *Buildout Reduction Program Report Town Hall Meeting Final Draft* (May 16, 2006); refer to Appendix 14.3 (Buildout Reduction Program Report).

PHG-2 The CCSD shall prepare an annual progress report providing status information on the Buildout Reduction Program.

Analysis concludes that implementation of the proposed Water Master Plan would not result in an unregulated amount of growth, following implementation of the recommended mitigation (i.e., Buildout Reduction Program) and compliance with San Luis Obispo County and CCSD Growth Management Policies. The proposed Project would result in less than significant cumulative growth-inducing impacts.



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Cumulative Impacts

The Water Master Plan Project, combined with future development in the North Coast Area, could incrementally induce population growth.

No mitigation measures are recommended beyond compliance with the established regulatory requirements on a project-by-project basis.

Analysis has concluded that impacts are less than significant.

2.4 PROJECT ALTERNATIVES

The following is a description of each of the alternatives evaluated in Section 6.0 (Alternatives to the proposed Project).

“NO PROJECT” ALTERNATIVE

The No Project/No Development Alternative assumes that CCSD’s existing water distribution, storage, and treatment facilities would remain in their current condition. With this Alternative, the proposed Water Master Plan (WMP) would not be adopted. CCSD’s long-term water supply strategy, which consists of potable and recycled water distribution system improvements, water demand management, and seawater desalination (i.e., the proposed WMP elements) would not be adopted.

With this Alternative, it is assumed none of the WMP’s proposed improvements would be implemented. The recycled water system would not be improved; therefore, recycled water would not be used to augment potable supplies and a non-potable source of water would not be available for irrigation purposes. The potable water distribution system improvements would not be made; therefore, the identified hydraulic and storage deficiencies would not be alleviated. The water demand management improvements to the current conservation program and regulations, in order to reduce potable water use for landscaping would not be implemented. Seawater desalination would not be implemented.

Overall, the volume of supplemental water needed by the CCSD during the dry season (i.e., 602 AF) would not be supplied. The CCSD’s water shortage emergency and new connection moratorium would remain in effect. Cambria would have to continue to rely primarily on CCSD’s aggressive water conservation program and rate setting as a means for controlling demand.

“SURFACE WATER FROM LAKE NACIMIENTO” ALTERNATIVE

To date, there are at least two basic options for CCSD to obtain Nacimiento water: (1) use of an independent CCSD Nacimiento pipeline; and (2) use of the proposed County regional Nacimiento pipeline and an independent CCSD pipeline from the regional system. Both options, the Surface Water From Lake Nacimiento Alternative and Whale Rock Exchange Alternative, are discussed below.

The Surface Water From Lake Nacimiento Alternative would involve the use of surface water from Lake Nacimiento. This Alternative would involve an independent CCSD Nacimiento pipeline project that would pump water from Lake Nacimiento over the Santa Lucia mountain range. Once over the ridgeline, water would be discharged into one of the drainage basins supplying water to CCSD. Screening of numerous pipeline options resulted in a Town Creek



Alignment and a Franklin Creek Alignment. The Town Creek Alignment discharge would enter the upper reach of San Simeon Creek after being pumped approximately 1,900 feet from Nacimiento Reservoir. The Franklin Creek Alignment discharge would enter the upper reach of Steiner Creek after being pumped from Nacimiento Reservoir. After discharge to a creek, the water would be pumped from Palmer Flats by two new extraction wells and the proposed Palmer Flats pipeline route, to the production facility at the San Simeon well field, where it would enter the distribution system.

Regardless of which pipeline option or intake location that would be selected, the following facilities would be required at the intake site: HDPE pipe extending to the lake bottom, including some submarine pipeline through the Las Tablas arm; an intake screen; fish screens and strainers with backwash to a small drying bed; a closed 30,000 gallon holding tank; and three booster pump stations. In order to provide vehicular access, new roads leading to the facility would be constructed. The pipeline routes would require eight to ten miles of steel pipe with welded joints and construction of access roads. Energy dissipaters and erosion control facilities would be required at the point of release into the creek. This would involve concrete and riprap. At Palmer Flats, two new extraction wells with 175 horsepower pumps would be required and 2.7 miles of ten-inch PVC pipe would be required to carry the water to the San Simeon well field located downstream. The extracted groundwater would enter the distribution system at this location. An additional well may be required if dewatering of the wastewater percolation pond is necessary to prevent intrusion into the well field.

“WHALE ROCK EXCHANGE” ALTERNATIVE

As previously noted, the Whale Rock Exchange Alternative is one option for CCSD to obtain Nacimiento water. This Alternative involves use of the proposed County regional Nacimiento pipeline (Nacimiento Water Project) and an independent CCSD pipeline. The Whale Rock Exchange Alternative would involve an exchange of Lake Nacimiento water for water from Whale Rock Reservoir. The source of the Whale Rock water is run-off from Santa Rita and Cottontail Creeks that is captured by the Whale Rock Dam.

During the early to mid-1990s, the County developed a regional pipeline concept that would serve Paso Robles, Templeton, Atascadero, the City of San Luis Obispo, as well as the County. The County completed the Final Environmental Impact Report for the Nacimiento Water Project (NWP) in December 2003 and is in the process of constructing the project. The main objective of the proposed NWP is to provide a reliable supplemental water source for a variety of uses within the County by supplementing the local ground and surface water supplies with a new surface water source. The San Luis Obispo County Flood Control and Water Conservation District has a 17,500 AFY entitlement from Lake Nacimiento. Of this 17,500 AFY, 16,200 AFY of water is slated for the NWP to augment the existing water supplies in various communities within the County. The remaining 1,300 AFY is being reserved for local lakeside use. Fifteen (15) purveyors submitted their requests for Lake Nacimiento water.

The San Luis Obispo County Flood Control and Water Conservation District (FCWCD) has 17,500 AFY entitlement from Lake Nacimiento. The Final Environmental Impact Report (FEIR) adopted by the FCWCD's Board on January 6, 2004, identified 16,200 AFY of the water for distribution throughout the County, and the remaining 1,300 AFY held in the reservoir for lakeside users. In 2004, the FCWCD performed an analysis of the lakeside use potential around the lake, and changed the 1,300 AFY to 1,750 AFY. The remaining 15,750 AFY is the capacity of the Nacimiento Water Project.



When the FEIR was completed, fifteen (15) purveyors had submitted requests for Lake Nacimiento water totaling 13,575 AFY; the remaining 2,625 AFY was designated as FCWCD-Owned contingency capacity. As of February 21, 2008, six of those purveyors are contract project participants with allocations totaling 9,655 AFY. The FCWCD's Reserve Water as of this date is 6,095 AFY. The pipeline is being constructed to accommodate the delivery of the Reserve Water (6,095 AFY) to any point between the lake and Paso Robles, then the pipeline diameter is reduced to deliver a pro-rated share of water at the delivery points along the pipeline where water is delivered to the project's participants. At the end of the pipeline, at the City of San Luis Obispo, the capacity of Reserve Water Delivery is 2,123 AFY.

The regional Nacimiento transmission pipeline (NWP) would be used to transport water from Lake Nacimiento to the City of San Luis Obispo Treatment Plant. The NWP includes construction of the water intake at Lake Nacimiento, water storage tanks, pump stations, and a 64-mile water transmission pipeline. The pipeline route would begin at an intake near the Nacimiento Dam and would continue in a southeastern direction. After crossing the Salinas River, it would turn south and parallel the river to Atascadero. From there, it would re-cross the Salinas River and head southwest through the Cuesta Tunnel to the City of San Luis Obispo Water Treatment Plant. Using the existing Chorro Valley pipeline, the water would be transported from the San Luis Obispo Treatment Plant through Cayucos to the Whale Rock Reservoir.

Infrastructure required to convey the water from Whale Rock Reservoir to CCSD is dependent upon which supply option is chosen. Two exchange capacities have been evaluated in previous studies, either 700 AFY or 1,000 AFY. For the 1,000 AFY option, 15.3 miles of 16-inch pipeline, two pump stations, and a treatment plant would be required. The treatment plant could be located in Cambria or Alternatively could be located elsewhere if other coastal communities are included in the exchange. The treatment plant would be designed for a 3.8 MGD flow rate and would have a 2.2 MG storage tank. The pipeline would follow Highway 1, outside of CALTRANS right-of-way, for a majority of the route. A significant amount of pavement replacement would be required and right-of-way would need to be obtained. For the 700 AFY option, 13.1 miles of eight-inch pipeline, one pump station, and a smaller treatment plant would be required. At least 0.25-acre of land would be required for the treatment plant and pump station. The pipeline would follow the same route as for the 1,000 AFY option.

Water exchanges would need to occur with the City of San Luis Obispo, the County of San Luis Obispo, and the three water purveyors supplying Cayucos. In addition, agreements may also be required with entities currently receiving Whale Rock Reservoir water, including the State of California Men's Colony and California Polytechnic State University.

"HARD ROCK DRILLING" ALTERNATIVE

Hard Rock Drilling would involve development of groundwater supplies from fractured bedrock, which has typically not been explored for potential water supplies. Typically, developing groundwater supplies from fractured bedrock consists of three phases of development. Phase 1 involves reviewing the subsurface geology, evaluating yield, identifying potential locations for exploration, acquiring permits for test bores, and drilling test bores to predict actual production capacity. Phase 2 includes test pumping and evaluating water quality of test bores to predict actual production capacity. Phase 3 includes drilling of production wells and delivery of water to the customer's distribution system.



In June 1993, several wells were drilled, however, the location did not appear to have sufficient potential to provide a viable source of groundwater and exploration activities were stopped. Before exploration activities ceased, an area near a sandstone ridge was found to yield 100 to 200 gallons per minute (gpm). Therefore, this Alternative would involve pursuing a new hard rock drilling location by exploring the four-square mile area 0.5-mile north of Santa Rosa Creek westward to the coast. Further, Phase 1 testing would be required to explore this region in more detail.

This Alternative would require construction of a new pipeline connecting the new well with the existing CCSD distribution system. A treatment plant may also be necessary depending upon the groundwater quality.

“VAN GORDON DAM AND RESERVOIR” ALTERNATIVE (SAN SIMEON CREEK DAM-2)

Previous studies have evaluated three different dam and reservoir alternatives located on San Simeon Creek: San Simeon Creek Dam 1 (Upper San Simeon Site); San Simeon Creek Dam 2 (Van Gordon Site); and San Simeon Creek Dam 3 (State-Proposed Site). All three dam alternatives would involve releases to San Simeon Creek and extraction at the existing well field. Of the three alternatives proposed, the Van Gordon site showed the most potential as a future water supply alternative. The Van Gordon dam site is located on the east tributary of the Van Gordon Creek tributary. Specifically, the site is located along upper San Simeon Creek, upstream of the confluence with Steiner Creek.

This Alternative would involve the construction of a dam and reservoir for the collection of storm water from the watershed. The earth-filled dam would be 123 feet high, with a crest length of 800 feet. The approximately 40-acre reservoir would have an expected depth of 55 feet, a storage capacity of 2,000 AFY, and a safe yield of 500 AFY. A straight chute in the right abutment of the dam would provide spillway into Van Gordon Creek. Approximately 30 feet of bottom excavation would be required for the dam, which would have a spillway capacity of approximately 3,000 cfs and five feet of gross freeboard.

An 880 gpm pump station and eight-inch pipeline would be required to convey excess groundwater from the San Simeon well field to the reservoir during the wet season. One-hundred horsepower would be required to overcome the 165 feet of head and 150 feet of friction losses. Releases from the dam would back-flow through the pipeline to the well field at San Simeon Creek. From there, a valve system would route the water past the well field to an additional eight-inch pipeline, which would convey the water to the recharge point in San Simeon Creek. Total pipeline length would be 6,000 feet. Santa Rosa groundwater would be conveyed to the San Simeon well field through CCSD's existing distribution system and then to the reservoir in the same manner as San Simeon groundwater.

The reservoir would be filled with the remaining wet season entitlement from the San Simeon and Santa Rosa groundwater basins. This supply would be achieved by constant pumping of the San Simeon and Santa Rosa wells during the wet season. The amount not needed to meet immediate demands would be pumped to the reservoir for storage. The water would be released into Van Gordon Creek during the dry season, where it would recharge the aquifer. The reservoir would have a storage capacity of 2,000 AFY and a safe yield of 500 AFY. After transit losses and upstream pumping, only 250 AFY would be available for CCSD use. This



Alternative would have limited reliability and require the relocation of one house and 2.5 miles of San Simeon Creek Road.

Permitting, design, construction, and startup of the dam and reservoir proposed under this Alternative are likely to require approximately three years.

“JACK CREEK DAM AND RESERVOIR” ALTERNATIVE

This Alternative consists of the construction of a 95-foot high on-stream dam located on Jack Creek in Dover Canyon. The reservoir, with a storage capacity of 4,705 AF, would collect run-off from the Dover Canyon watershed during the wet season. The watershed has an average run-off of 1,655 AFY. Releases would be made during the dry season, and would need to be pumped over the divide, which separates Dover Canyon and Santa Rosa Creek. All flow of Dover Canyon during the dry season would be released to Jack Creek and therefore to Santa Rosa Creek, for recharge of the groundwater basin.

This Alternative would require construction of a dam, reservoir, pump station, pipeline, two new extraction wells, and a treatment facility. An earth filled dam approximately 95 feet high with a crest length of 700 feet would need to be constructed. Approximately 15 feet of bottom excavation would also be required. The dam is expected to have a spillway capacity of 12,500 cfs and ten feet of gross freeboard. The reservoir depth is expected to be 80 feet. Minimal slope stabilization would be required at the dam site. A 567 gpm pump station would be required to pump the release over the divide and into Santa Rosa Creek. With 1,000-foot elevation and 189-foot line losses, a total of 225 hp would be required. It is anticipated that the pump station would operate 300 days per year. The pipeline route would consist of 17,000 feet of eight-inch pipeline from the reservoir site over the divide to the release point at Santa Rosa Creek. Construction of the pipeline route is expected to be difficult, due to the steep terrain through landslide sensitive area. Two new extraction wells in the Santa Rosa Basin would be required to pump the increased supply. A filtration and chlorination treatment plant would also be required.