



6. Long-Term Implications of the Proposed Project

6. LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

6.1 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Approval of the proposed Desalination Plant would cause irretrievable environmental changes. Implementation of the proposed project would result in the following changes:

- Alteration of the environment as a consequence of the construction of the Desalination Plant and associated facilities. The project proposes to transport seawater from the Pacific Ocean and convert it into a domestic water source and disposal of brine water via ocean outfall. Development of the Desalination Plant, including the intake and outfall pipelines, would result in significant irreversible environmental changes (refer to various Sections in Chapter 5.0 of this EIR for additional information and clarification);
- Depletion of energy supplies during construction and operation of the project and;
- Utilization of natural resources, such as water, gravel, fuel, and lumber, for construction of the proposed project. The water used during the construction of the project would be of a non-potable supply to reduce impacts to the domestic water supply. It should be noted that the primary purpose of the project is to provide a domestic water source for the project area during periods of drought.

6.2 GROWTH INDUCING IMPACTS

In accordance with CEQA Guidelines Section 15126(g) which defines an EIR's approach to the discussion of growth inducing impacts, an analysis of potential growth-inducing impacts was conducted for the project. This Section requires that an EIR disclose the ways in which a project could foster additional growth, either directly or indirectly. Furthermore, this Section includes projects which remove obstacles to existing growth which in some instances may include development of a new water supply. As a general observation, the

Desalination Plant may be regarded as growth-inducing because the project results in the removal of an obstacle to existing growth by providing an additional source of domestic water. However, as discussed below, this project is not expected to have such an impact, rather, it is reactive to an existing deficiency and would accommodate service needs for the current population of Cambria.

Existing Need

Cambria is a resort and retirement community located in the North Coast Planning Area of San Luis Obispo County. Within the CCSD service area, groundwater has been the historic source for domestic water. However, local groundwater supplies have been severely taxed to meet demand during recent drought years. Although conservation measures have been implemented, the CCSD has evaluated alternatives to increase the safe yield of its water supply.

Due to the severe drought conditions experienced during the past few years, the water supply of the existing Santa Rosa and San Simeon groundwater basins have been significantly reduced. As shown in Table 2, CCSD DOMESTIC WATER PRODUCTION, the average total domestic water production from 1987 to 1993 was approximately 711 ac-ft/yr. As the maximum projected water demand for 2015 is 1,556 ac-ft/yr, the projected domestic water supply needs for Cambria are anticipated to exceed the safe yield of the groundwater basins in the future (refer to Table 3, PROJECTED CCSD DOMESTIC WATER DEMAND). As a consequence, the CCSD is proposing this Desalination Plant Project in order to meet future water supply needs of its Service Area. The facility would supplement the domestic groundwater sources during periods of drought (the facility would typically operate from September through December, but could operate year-round during extreme drought conditions).

Future Need

Development in the Community of Cambria is subject to limitations outlined in the County's Land Use Element and Local Coastal Plan. These documents had imposed a limitation on residential construction in Cambria by limiting the number of residential permits to a maximum of 125 per year. This limitation was considered in the projected population for the years 1995 through 2020 (refer to Table 24, POPULATION PROJECTION SCENARIOS (Coastal Permit Limitation Scenario). Table 25, WASTEWATER TREATMENT FACILITY FLOW PROJECTIONS, indicates the projected average flows

Table 24

POPULATION PROJECTION SCENARIOS

Year	Water/Sewer Permit Limitation Scenario ¹	County Growth Management Ordinance Scenario ²	Coastal Permit Limitation Scenario ³	Resource Constrained Scenario ⁴	High Growth Scenario ⁵
1989	-	-	-	4,850	4,850
1990	5,300	5,300	5,300	5,294	5,294
1995	5,949	5,938	6,550	5,591	-
2000	6,648	6,653	7,800	5,873	-
2005	7,431	7,454	9,050	6,138	-
2010	8,308	8,352	10,300	6,388	-
2015	9,291	9,358	11,550	-	-
2020	10,393	10,484	12,800	-	-
Buildout	-	-	-	-	17,716

¹ Based on CCSD limitation of a maximum issuance of 72 water/sewer permits for residential dwelling units per year.

² Based on County Growth Management Ordinance for 2.3% annual increase in residential building permits within the Community of Cambria (2 persons per household).

³ Based on issuance of Coastal Permit still in force - 125 building permits per year, 2 persons/household. Source: Project Report, John Carollo Engineers.

⁴ Based on recognition of declining resources (North Coast Planning Area Administration Draft 1).

⁵ Based on uncontrolled growth and fully occupied development to maximum permitted in each Land Use (North Coast Planning Area Administrative Draft 1).

Table 25

WASTEWATER TREATMENT FACILITY FLOW PROJECTIONS

Year	Minimum Projected Average Flow⁶ (mgd)	Maximum Projected Average Flow⁷ (mgd)	Maximum Peak Flow⁸ (mgd)
1989	0.47	0.47	1.18
1990	0.48	0.59	1.48
1995	0.51	0.61	1.53
2000	0.54	0.73	1.83
2005	0.57	0.81	2.03
2010	0.60	0.90	2.25
2014	0.62	0.92	2.30

⁶ Based on 80 gpd and issuance of 30 building permits per year

⁷ Based on 100 gpd and issuance of 125 building permits per year

⁸ Based on 2.5 times the maximum projected average flow.

for the years 1995 through 2014. These flow projections correspond directly to the 125 building permit/year limitation and projected population increases.

Development within the County of San Luis Obispo is further controlled due to County-wide limitations. The Board of Supervisors of San Luis Obispo County have recognized the rapid rate of population growth which has occurred in the County over the past ten years. The region's 1989 population of 211,941 as identified by the Department of Finance was more than twice that of 1979 (105,690)⁹. In response to the magnitude of population increases, the County Board of Supervisors has adopted Growth Management Ordinance No. 2477, effective December 1, 1990. In brief, the ordinance limits new residential units to an increase of 2.3% per year. This number may be reduced for Cambria if the resources are not available to support the maximum number of potential allocations.

Growth Limitations

Several regulatory restrictions and/or conditions exist which serve to limit growth in Cambria. As previously discussed, County Growth Ordinance No. 2477 was adopted limiting the construction of residential units County-wide to a maximum increase of 2.3% per year (approximately 800 units in 1991). Growth in Cambria had been limited by the District's Coastal Permit limitation of 125 dwelling units per year. Growth in Cambria is now controlled by limiting the number of water/sewer permits that are issued, which is more stringent than the Coastal Permit limitations.

According to CCSD staff, growth is controlled by limiting the issuance of water and sewer permits to a maximum of 2.3 percent per year within the District (73 residential permits per year, with four additional reserved for those applications with "grandfathered" rights). A waiting list presently exists consisting of 1,174 applications for sewer and water permits.¹⁰ Any applicant wishing to apply will now apply to the County for placement on their waiting list. In light of the 73 per year current limitation on the issuance of residential water and sewer permits and the "grandfathered" parcels, new applications for water and sewer permits will not be considered for approximately 16 years (1,174/73), until the year 2010.

Population projections for Cambria have been made based upon a scenario recognizing declining resources, particularly water availability in the years 1990 through 1993 (see Table

⁹ San Luis Obispo Area Coordinating Council and Regional Transportation Planning Agency, San Luis Obispo Cities and Counties Regional Profiles, pages 1-4.

¹⁰ Correspondence with Dave Andres, CCSD, August 1, 1994.

24, POPULATION PROJECTION SCENARIOS (Resource Constrained Scenario) and the County growth limit of 2.3%).¹¹ As is evident, these projections are considerably lower than the projections for the Coastal Permit Limitation Scenario. Therefore, although the proposed project would provide adequate capacity through the year 2014, it may potentially provide service well beyond that projected year due to the limitations imposed on growth. Growth would only occur provided the County Growth Management Ordinance and growth controls were repealed and an adequate amount of water is available to serve an increased population.

Population projections for Cambria have also been made based upon the projected buildout capacity (see Table 24, POPULATION PROJECTION SCENARIOS (High Growth Scenario)¹² This is the potential planning area population resulting from unconstrained growth and fully-occupied development to the maximum permitted in each land use category¹³. The projected buildout population for Cambria is 17,716 persons.

As substantiated above, the proposed Desalination Plant project would not result in growth inducing impacts. Although development of the project would generally be considered a removal to an obstacle for growth, the existing and future needs are such that the expanded water supply resulting from the project would represent a reactive measure. In addition, the regulatory restrictions and/or conditions which currently exist serve to effectively curb growth. In conclusion, growth in Cambria would be controlled regardless of the proposed Desalination Plant.

6.3 CUMULATIVE IMPACTS

This Section has been included in the EIR to address the cumulative impacts associated with projects currently approved and proposed in the vicinity of the project site. In accordance with CEQA Guidelines Section 15130, cumulative impacts shall be discussed when they are significant. This discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great a detail as is provided of the effects attributable to the project alone. The following elements are necessary for reasonable, practical and adequate discussion of cumulative impacts:

¹¹ San Luis Obispo County Planning Department, North Coast Planning Area Administrative Draft 1, February 21, 1990.

¹² Ibid.

¹³ Ibid.

1. Either:
 - a. A list of relevant past, present and reasonably anticipated future projects, or
 - b. A summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or area-wide conditions.
2. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and
3. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigation or avoiding any significant cumulative effects of a proposed project.
4. With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinance or regulations rather than the imposition of conditions on a project-by-project basis.

The following approved and proposed water/wastewater projects, located in the Community of Cambria and on the CCSD property adjacent to San Simeon Beach State Park, have been considered for the cumulative analysis:

Groundwater Reclamation/Recharge Project

This project improves the safe yield of the community water supply. The project replenishes the domestic supply aquifer with water extracted from the District's effluent disposal field. The treated wastewater would recharge the groundwater through discharge into San Simeon Creek.

The project consists of the construction of a reverse osmosis treatment plant in an 800 square foot enclosed building, three extraction wells, a brine water injection well, installation of associated pumps and approximately 1.5 miles of underground piping. A Final Environmental Impact Report, dated December, 1991, has been prepared and certified for this project and a pilot facility was constructed in order to establish the technical parameters of the advanced facility. Although a Final EIR was certified for this project, a negotiation

impasse with local landowners to recharge the basin resulted in the CCSD placing the Project on hold for the immediate future.

Wastewater Treatment Facility Upgrade Project

The CCSD is upgrading an existing Wastewater Treatment Facility located on a 13.5-acre site to the south of the Windsor Boulevard and Highway 1 intersection, within the Community of Cambria. The construction of a multi-purpose building is a part of the project. The upgrade project is a 1.0 million gallons per day extended aeration plant. The development would occur in two phases. Phase I is intended to provide the CCSD with adequate treatment capacity up through the year 2015 and Phase II is intended to provide additional improvements to maintain adequate treatment capacity. The new treatment facilities will be added without significantly altering the existing treatment plant. In addition, the existing activated sludge process would continue to be utilized with the proposed upgrade. An Environmental Impact Report was prepared for this project and was certified by the CCSD Board of Directors November 18, 1991.

Effluent Ponds Project

The Effluent Disposal Field Improvement project involves the installation of an irrigation pump at the storage reservoir, grading of approximately 20 acres to create four percolation basins, the drilling of an extraction well, installation of flow meters in the existing Warren, Molinari, and 9P2 extraction wells, the construction of associated underground piping and an access road. The proposed percolation ponds would have depths of up to six feet. An Erosion Control/Revegetation Mat, consisting of Geotextile Fabric, will be installed over seed and mulch in the berm paralleling San Simeon Creek and hydroseeded after installation. This mat, which will be buried in the slope of the berm, to a depth extending three feet below the base of the berm, will provide additional erosional protection along the berm face. Construction of the ponds will involve the grading of approximately 30,000 cubic yards of cut and fill.

As part of the CCSD's long-term goal and responsibility of providing adequate and effective water and wastewater facilities, the project is being proposed to improve the existing effluent disposal facilities in order to assure adequate capacity to dispose of the projected 2010 flows. In addition, on December 16, 1988, the Regional Water Quality Control Board (RWQCB) issued a Clean-up/Abatement Order to the CCSD for direct discharge from the effluent disposal field to San Simeon Creek in violation of its National Pollutant Discharge Elimination System (NPDES) permit and waste discharge requirements. As a consequence,

the CCSD is required to upgrade the capacity of the effluent disposal fields to provide for future flows and improve the existing system to prevent discharge into San Simeon Creek. The discharge occurred when effluent pumped to the disposal fields breached a berm and flowed, without further treatment, into Van Gordon Creek. The project is being proposed to prevent situations such as this from occurring in the future.

Other Land Development Projects

There are various development projects proposed within Cambria Service Area. The residential waiting list consists of approximately 1,106 single-family residences and 68 multi-family residences.¹⁴ The commercial waiting list has an equivalent dwelling unit ratio of 47.52.¹⁵ Development projects in proximity to the project site include APN 013-151-017 located adjacent to the flag lot property. The County has approved an 8,840 square foot residence for the Parcel. APN 013-151-020 is also located along Lone Palm Road and has been approved for a 2,585 square foot single family residence.

The proposed East West Ranch land development project was recently submitted to the County for review. The property is part of the CCSD service area and has been considered in this cumulative analysis. The May 23, 1994 plan proposes 250-340 residential units, a grammar school and a neighborhood/community center on the west side of the 400-acre property. The plan includes a 56-acre ocean bluff park, preservation of 100 acres of Cambria pine forest and pine/cypress/oak woodland. The water source for the West Ranch area would come from a planned seawater flash distillation desalination system that the ranch owners will own and operate. The capacity of the system will be 330 m³/day (equivalent to 100 acre-feet per year). The system will be capable of delivering approximately 86,000 gallons of potable water daily against a maximum demand of 65,000 gallons. Water for the East Ranch could include underflow from Santa Rosa Creek in an approximate amount of 40 acre-feet per year.

Quantification of cumulative impacts is difficult and would require speculative estimates of impacts including, but not limited to, the following: the geographic diversity of impacts in the Cambria Community Services District (impacts of future development may affect different areas); variations in time of impacts (many of the project's future impacts, especially the short-term construction related impacts, would occur at different times, and

¹⁴ Correspondence with Dave Andres, CCSD, August 1, 1994.

¹⁵ Ibid.

would be reduced or removed before other short-term impacts occurred); complete data is not available for all future development; and data for future development may change during subsequent approvals. However, every attempt has been made to make a qualitative judgement regarding the combined effects of and relationship between the different land uses. The following is a discussion of cumulative impacts according to the respective environmental issue areas discussed within the EIR.

Geology, Soils and Seismicity

Development in the Community of Cambria may incrementally expose additional lives and property to geologic and soil hazards inherent to the region. Therefore, cumulative impacts are potentially significant. However, standard State and local regulations regarding seismic safety require the assessment of geologic hazards and the provision of necessary mitigation such that development projects provide adequate safety from these hazards. Although geologic and soil hazards would continue to exist, implementation of these regulations would reduce potential impacts associated with geologic hazards to less than significant levels. Therefore, cumulative geologic impacts of development within Cambria are not considered to be significant.

The exposure of soils during any grading and excavation activities required for the projects may result in increased wind and water erosion. However, due to the short-term nature of grading activities and implementation of required mitigation measures to control erosion, associated impacts are not considered significant.

Hydrology, Drainage and Groundwater

Cumulative development in the project vicinity would increase runoff volumes and velocities within the local and regional drainage systems. Flood control improvements are required on a project-by-project basis to mitigate cumulative impacts in the area. Also, urban pollutants, such as grease and lead concentrations contained in runoff, may increase as a result of cumulative development. Cumulative impacts to water quality are not anticipated to be significant as the projects are not expected to directly impact the domestic well fields.

With the possible exception of the East-West Development which would be in close proximity to one of the District's Santa Rosa Creek wells, this could be further affected if the East-West Ranch pumps groundwater from wells near the District's wells.

Terrestrial Biological Services

Implementation of the proposed projects would result in incremental decreases in the quantity, quality and extent of regional biological resources due to the loss of open space associated with cumulative development. This may significantly impact important natural settings within the planning area and nearby communities, including habitats of sensitive plant and animal species.

Marine Resources

Cumulative development of desalination facilities in the vicinity of the Cambria Desalination Plant may result in significant impacts to marine resources in the local area. The most notable facilities in the area include the San Simeon Desalination Plant at Hearst Castle and the proposed East West Ranch flash distillation facility. These facilities are much smaller than the proposed CCSD Desalination Plant and are more than two miles apart from each other. Proper implementation of construction and operational mitigation can reduce the potential significance of impacts on a project by project basis.

Cultural Resources

Cumulative development may result in increased impacts to cultural resources, particularly within the archaeologically sensitive area of San Simeon Creek. These potential impacts can be mitigated on a project-by-project basis by requiring archaeological surveys, and salvages when determined necessary, of known cultural resources, and on site where the potential for occurrence of such resources is high.

Land Use and Relevant Planning

Implementation of future development and public improvement projects would result in an intensification of the existing land use on the sites, and losses of open space. Future development may result in the depletion of agricultural resources in the region. In addition, the West Ranch, as proposed, would develop outside of the District's boundaries, ~~which would be consistent with~~ but within the District's LAFCO Sphere of Influence. As cumulative land use impacts are difficult to individually mitigate, impacts can be reduced through conformance with the County General Plan and the Local Coastal Plan.

Aesthetics, Light and Glare

Short-term aesthetic impacts include dust generation and the presence of construction vehicles and equipment during the construction phases of the projects. The construction of the proposed projects would permanently alter the nature and appearance of the sites through loss of undisturbed open space. Security lighting used when there is a breach of security would introduce light and glare into the project areas. Aesthetic impacts are typically mitigated separately on a project by project basis.

Noise

Cumulative project construction, buildout and associated increases in traffic levels due to future development would result in an incremental increase in noise levels in the project vicinity. These impacts can be reduced by implementing appropriate noise control measures where County or State standards are exceeded as determined necessary upon buildout.

Air Quality

Cumulative impacts of the projects primarily involve the short-term emissions and dust generation during construction activities. The increase in energy consumption as a result of the projects would result in an overall increase in local and regional air pollutant load. Traffic related impacts can be partially mitigated on a project-by-project basis through implementation of the Transportation Mitigation Measures listed in the APCD Guidelines for Assessing Air Quality Impacts. Impacts due to increased energy consumption would be reduced through the use of energy efficient facilities, as feasible, for the projects proposed by the CCSD.

Risk of Upset/Human Health

Human health impacts are reviewed and mitigated on a project by project basis based on adherence to Federal, State and local permit procedures and regulations regarding hazardous materials.

Transportation and Utilities

Cumulative project traffic would result in an incremental increase in local and regional traffic levels due to future development. Cumulative impacts would result, in part, from

short-term increases in construction traffic. Cumulative traffic impacts are mitigated through conformance with the County Transportation and Circulation Element.

While there are not a substantial number of seawater desalination projects now operating in California, if seawater desalination were to become the preferred method of supplementing the potable water supplies available to California coastal communities, the cumulative impact on electrical power demands could become significant. New power plants could become necessary to meet the increased power demand, and other adverse environmental impacts could result from the increased extraction and transport of fossil fuels, and the potential air quality impacts associated with fossil fuel combustion and electrical power generation. However, it should be noted that the large-scale projects (30 to 50 MGD capacity) being considered in Southern California are being developed in conjunction with repowering of existing power plants, which has the potential to make both the Desalination Plant and the power plant more efficient as a result of the project.

Public Services

Cumulative impacts from the project and additional development would result in incremental increased demands upon existing public services. However, these increases are not anticipated to result in significant adverse impacts. The cumulative projects proposed by the CCSD may require additional staff to perform required maintenance and monitoring of the facilities; however, this is not considered a significant adverse impact. The proposed projects are reactive measures to provide adequate water services to the Service Area.