

## **7.0 Alternatives to the Proposed Project**





## 7.0 ALTERNATIVES TO THE PROPOSED PROJECT

Under CEQA, the identification and analysis of alternatives to a project is a fundamental part of the environmental review process. Public Resources Code (PRC) Section 21002.1(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is ... to identify alternatives to the project."

Direction regarding the definition of project alternatives is further provided in CEQA Guidelines Section 15126.6(a), as follows:

*An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.*

The CEQA Guidelines emphasize that the selection of project alternatives be based primarily on the ability to reduce impacts relative to the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."<sup>1</sup> The CEQA Guidelines further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are addressed.<sup>2</sup>

In selecting project alternatives for analysis, potential alternatives must pass a test of feasibility. CEQA Guidelines Section 15126.6(f)(1) states that:

*Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site...*

Beyond these factors, CEQA Guidelines require the analysis of a "no project" alternative and an evaluation of alternative location(s) for the project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the no project alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives.<sup>3</sup> In addition, CEQA Guidelines Section 15126.6(c)

<sup>1</sup> CEQA Guidelines Section 15126.6(b).

<sup>2</sup> CEQA Guidelines Section 15126.6(f).

<sup>3</sup> CEQA Guidelines Section 15126.6(e)(2).



requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible and discuss the reasons for their rejection.

The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. The range of potential alternatives to the proposed project shall also include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. An alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative need not be considered.

## **PROJECT OBJECTIVES**

The proposed Project objectives, as referenced in Section 3.3, *Project Purpose and Objectives*, are as follows:

- Provide a reliable water supply facility to serve existing development, which can be operated to maximize local water use efficiencies, address any current water shortages, and avoid future water shortages.
- Provide a reliable water supply, which would serve no more than 4,650 existing and future residential units (Cambria Community Services District (CCSD) wait list), pursuant to the NCAP and mitigation set forth in the CCSD's certified WMP PEIR.
- Provide for the indirect potable reuse of recycled water as part of the District's efforts towards implementing sustainable practices for resilience to climate change impacts.
- Augment Cambria's water supply during shortages by recharging the San Simeon well field aquifer.
- Prevent the migration of secondary wastewater effluent into the San Simeon well field production wells.
- Prevent seawater intrusion into the San Simeon well field production wells.
- Avoid potential ground subsidence.
- Maintain adequate groundwater levels at the San Simeon well field to ensure proper production well operations (no loss of suction).
- Improve water use efficiency by avoiding the need to periodically pump groundwater into the Van Gordon Creek to maintain a positive gradient between the up-gradient potable well field and the treated wastewater percolation ponds.



- Minimize the loss of fresh water to the ocean while also conserving the amount of freshwater remaining in aquifer storage.
- Protect the down-gradient lagoon by the Project's design feature, which provides a surface water discharge into the lagoon when the facilities are in operation during the dry summer season, when there is no surface flow into the lagoon.
- Reduce salts and nutrients from the lower San Simeon groundwater basin by processing the water through reverse osmosis and disposing of reverse osmosis (RO) concentrate, which would contain salts and nutrients.
- Reuse and repurpose existing CCSD infrastructure where feasible to minimize the Project's footprint and its potential impacts.
- Protect habitats for wildlife species by avoiding impacts to these resources, and protecting San Simeon Creek Lagoon during dry weather conditions.
- Meeting all regulatory agency permitted conditions, including those of SLO County and the State Water Board.
- Improving the quality of life for local residents and business owners and operators, who often resort to extraordinary measures to obtain the necessary water supply, such as manually hauling water in buckets and other make shift containers. This practice includes efforts by the community's elderly, retired population, who are limited in their physical capabilities and subject to injury from such efforts.
- Enhancing local fire protection resources for residences and businesses, as well as the surrounding highly vulnerable forest.
- Minimizing economic hardship and losses to local residences and businesses, including tourism.

## PROJECT SIGNIFICANT AND UNAVOIDABLE IMPACTS

Per CEQA Guidelines, only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed Project. As discussed throughout Section 5.0, *Environmental Analysis*, the Project would not result in any significant and unavoidable impacts to the environment.



## PROJECT ALTERNATIVES

The analysis presented below compares the potential environmental impacts associated with the following alternatives to the proposed Project's impacts:

- "No Project" Alternative;
- "SWF Without Project Modifications" Alternative; and
- "RO Concentrate Ocean Outfall Disposal" Alternative.

The No Project Alternative assumes a theoretical scenario under which the SWF was not built. This also assumes there was no drought and no consequential water shortage that needed to be addressed. The SWF without Project Modifications Alternative assumes the SWF will remain as it was constructed with no further modifications. The RO Concentrate Ocean Outfall Disposal Alternative considers various alternatives to the inland, Kettleman Hills disposal location that was used as a baseline in analyzing impacts due to the remote disposal of RO concentrate.

Throughout the following analysis, the alternatives' impacts are analyzed for each environmental issue area, as examined in [Sections 5.1](#) through [5.7](#). In this manner, each alternative can be compared to the proposed Project on an issue-by-issue basis. [Table 7-1, Comparison of Alternatives](#), which is included at the end of this Section, provides an overview of the alternatives analyzed and a comparison of each alternative's impacts in relation to the proposed Project. [Section 7.3, Environmentally Superior Alternative](#), references the "environmentally superior" alternative, as required by the *CEQA Guidelines*. The alternatives that were considered by the lead agency (CCSD) but were rejected as infeasible are also identified; see [Section 7.5, Alternatives Considered But Rejected](#).

### 7.1 "NO PROJECT" ALTERNATIVE

According to CEQA Guidelines Section 15126.6(e), the specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed Project with the impacts of not approving the proposed Project. The "no project" analysis is required to discuss the existing conditions (at the time the Notice of Preparation [NOP] is published), as well as what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. The Project's NOP was published March 4, 2015. However, given the Sustainable Water Facility (SWF) (formerly Emergency Water Supply Project) was constructed in response to the CCSD Board of Directors' January 30, 2014 declared Stage 3 Water Shortage Emergency Condition, and since the SWF was required to be constructed within 180 days from issuance of the Emergency Coastal Development Permit (E-CDP) (E-CDP Condition 5), this SEIR is unique involving environmental analysis after SWF completion. Therefore, the discussion of the No Project Alternative will consider the physical environmental conditions on the Project site and in



its vicinity, as they existed before construction of the SWF. The discussion of the No Project Alternative also considers the circumstance under which the SWF would not have proceeded. The discussion compares the environmental effects of the property remaining in its existing state (i.e., before SWF construction) against environmental effects, which occurred due to SWF construction.

To provide a comprehensive alternatives analysis consistent with CEQA requirements and intent, this “No Project” Alternative assumes that no SWF facilities were constructed. Thus, the analysis provided below is a theoretical scenario that retroactively analyzes alternative conditions at the time the SWF’s NOP was circulated in March 2015. At that time, the Project site primarily consisted of the undeveloped portions of the CCSD’s existing San Simeon well field and treated wastewater effluent percolation pond property, which are predominantly vegetated with annual grassland and ruderal vegetation. The various CCSD water and treated wastewater effluent facilities existing in March 2015 included potable water wells, a potable water supply pipeline, a gradient control extraction well, monitoring wells, a Van Gordon Creek discharge pipeline, a treated wastewater effluent percolation pond disposal system, an unused wastewater effluent storage reservoir (aka CCSD’s Van Gordon Reservoir), and service roadways.

## **DESCRIPTION OF ALTERNATIVE**

The 96-acre Project site is located within unincorporated San Luis Obispo County, north of Cambria. The Project site includes areas underlain by a shallow alluvial aquifer along San Simeon Creek, including the Van Gordon Creek tributary. The creek valley forms a steep, narrow canyon near the headwaters. Before reaching the Pacific Ocean, along the final three to five miles, the valley widens to a floodplain that is up to approximately 1,000 feet wide. The floodplain is underlain by the groundwater basin, and is flanked by steep hillsides that rise 200 to 800 feet above the valley floor. San Simeon Creek Lagoon, which is located in the lower portion of the valley, is a freshwater lagoon that forms behind an ocean bench berm. San Simeon Creek Lagoon is supported by groundwater discharge and surface water inflows.

The No Project Alternative assumes the Project site would be in the same condition as it was prior to construction of the SWF. With this Alternative, the site’s existing water and wastewater facilities would remain and continue operating as under existing conditions. Under the No Project Alternative, the additional water facilities would not be constructed, including the Advanced Water Treatment Plant (AWTP), Recharge Injection Well, Monitoring Well, Evaporation Pond and Evaporators, and associated pipelines. The following discussion evaluates the potential environmental impacts associated with the No Project Alternative, as compared to impacts from the SWF without implementation of identified Project modifications.



## **IMPACT COMPARISON TO THE SWF WITHOUT PROJECT MODIFICATIONS**

### **Aesthetics**

Under the No Project Alternative, the site's visual character/quality would not be altered, as no new water facilities would be constructed. The natural vegetation would not be removed or replaced with additional water facilities. All existing scenic vistas and views would remain unaltered and unobstructed. The SWF's impacts to the site's visual character/quality would be avoided with this Alternative. No new source of light or glare would be created under this Alternative.

The No Project Alternative would be environmentally superior to the proposed SWF regarding aesthetics/light and glare, as the site's visual character would not be altered and new light sources would not be introduced.

### **Air Quality**

Short-term air quality impacts from demolition, grading, and construction activities associated with the SWF would not occur with the No Project Alternative, as new water facilities would not be constructed. The SWF's construction-related emissions, which would be less than significant with mitigation incorporated, would be avoided.

The SWF's long-term combined mobile and stationary source pollutant emissions would not exceed MBUAPCD thresholds for ROG, NO<sub>x</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub>. Long-term air quality impacts from stationary and mobile source pollutant emissions associated with the SWF would not occur with the No Project Alternative, as new emissions would not be generated. With the No Project Alternative, these less than significant impacts would be avoided as new long-term emissions would not be generated.

The No Project Alternative would be environmentally superior to the SWF regarding air quality impacts, as no increase in mobile or stationary source emissions would occur. This Alternative would also avoid the SWF's less than significant impacts from operational emissions.

### **Biological Resources**

The SWF would result in less than significant direct and indirect impacts to special-status plant and animal species with mitigation incorporated. Under the No Project Alternative, none of the SWF's impacts to special-status plant and animal species would occur, as existing habitats and vegetation would not be disturbed and new water facilities would not be constructed. Additionally, the SWF's impacts related to wildlife movement, which would be less than significant with mitigation, would not occur under the No Project Alternative. The SWF's adverse





effects to riparian habitat and other sensitive natural communities, which would be less than significant with mitigation incorporated, would be avoided with the No Project Alternative, as existing habitats would be retained and new water facilities would not be constructed.

However, without the SWF and its lagoon water discharge Project Design Feature, the San Simeon Creek lagoon would be less protected during extended dry periods, than with the SWF. In this regard, the SWF would have a more beneficial impact to the San Simeon Creek lagoon wetland than the No Project Alternative. Under the No Project Alternative, the lagoon level would decline during an extended dry period by not receiving the SWF's lagoon water supply.

The No Project Alternative would be environmentally superior to the SWF, since no disturbance to the site would occur, and no impacts to plants, wildlife, or sensitive habitats would occur. However, the No Project Alternative would be environmentally inferior to the SWF, since it would lose the benefit of the SWF lagoon water supply, which provides protection to the San Simeon Creek Lagoon during extended dry periods. As such, biological impacts associated with the No Project Alternative are considered neither superior nor inferior concerning biological resources.

## **Cultural Resources**

The SWF could result in less than significant impacts to undiscovered archaeological resources, with mitigation incorporated. Under the No Project Alternative, these potential SWF impacts would be avoided, as ground disturbing activities would not occur. The No Project Alternative would also avoid the SWF's potential for disturbing human remains, which is concluded to be less than significant through compliance with the established regulatory framework.

The No Project Alternative would be environmentally superior to the SWF regarding cultural resources. There would be no potential for impacting resources, since ground disturbing activities would not occur.

## **Hydrology and Water Quality**

The No Project Alternative would not result in short-term water quality impacts, since grading, excavation, and construction activities would not occur. The less than significant short-term water quality impacts that would occur with the SWF would be avoided with this Alternative.

SWF implementation would increase the rate and amount of stormwater runoff, and change its quality, by development of impervious surfaces and new land uses. The SWF's potential long-term hydrology and water quality impacts, which were concluded to be less than significant, would be avoided with the No Project Alternative.



SWF implementation involves the extraction and reinjection of groundwater, in order to alleviate the Project area's drought conditions. The SWF's impacts to groundwater quality, which were concluded to be less than significant, would be avoided with the No Project Alternative. However, the SWF includes a more efficient gradient control feature that allows for more efficient use of the existing groundwater supply. This provides greater protection of the existing groundwater supply by allowing CCSD water operators to alternate the source of supply among the two existing aquifer well fields and the SWF. Such resting and alternating of supply sources aids in well recovery, maintaining groundwater basin storage, and meeting unplanned conditions, such as the loss of a well due to mechanical failure or other causes. All groundwater withdrawals and reinjections are subject to Regional Water Quality Control Board (RWQCB) requirements to ensure that degradation of the groundwater aquifer does not occur, and that minimum groundwater levels are maintained to protect the water supply well field from dissolved salts and nitrates.

The No Project Alternative would be environmentally superior to the SWF regarding hydrology and water quality, since no ground disturbing activities would occur, impervious surfaces would not increase, and new water facilities would not be constructed. However, the SWF provides substantial environmental benefits to local groundwater conditions, since it provides for the most efficient use of the existing groundwater supplies, provides improved operational reliability, and also improves protection to the San Simeon Creek lagoon area during extended dry periods from its lagoon water supply element. As such, the No Project Alternative is considered environmentally inferior to the SWF in this regard.

### **Land Use and LCP Compliance**

The No Project Alternative would not result in any potential conflicts with the California Coastal Act, North Coast Area Plan, or Coastal Zone Land Use Ordinance, which were determined to be less than significant with mitigation for the SWF.

The No Project Alternative would be environmentally superior to the SWF regarding land use compatibility, since no new water facilities would be constructed.

### **Noise**

Construction noise associated with the SWF would result in less than significant impacts. The SWF's construction-related vibration impacts are also anticipated to be less than significant. Construction-related short-term noise impacts from stationary and mobile sources and vibration impacts would not occur with the No Project Alternative. Therefore, the short-term construction-related noise and vibration impacts that would occur with the SWF would be avoided with the No Project Alternative.



A nominal amount of operational vehicle trips associated with the SWF would occur. Thus, with the SWF, long-term mobile noise would not be of concern and a less than significant impact would occur in this regard. This nominal increase in mobile noise sources that would occur with the SWF would not occur with the No Project Alternative. Therefore, although less than significant, the SWF's long-term noise impacts from mobile sources would be avoided.

The existing ambient noise levels in the Project area, which are presented in [Table 5.7-4, \*Existing Ambient Noise Measurements\*](#), would continue with the No Project Alternative. SWF implementation would result in less than significant impacts from stationary noise sources, with mitigation incorporated. The increases in stationary noise levels that would occur with the SWF would not occur with the No Project Alternative, because new water facilities would not be constructed. Therefore, although less than significant, the SWF's long-term noise impacts from stationary sources would be avoided with the No Project Alternative.

The No Project Alternative would be environmentally superior to the SWF regarding noise, since no short-term construction-related or long-term operational mobile or stationary noise increases would occur.

## **ABILITY TO MEET PROJECT OBJECTIVES**

The No Project Alternative would not meet any of the Project objectives, as identified above.

## **7.2 “SWF WITHOUT PROJECT MODIFICATIONS” ALTERNATIVE**

The “SWF without Project Modifications” Alternative assumes a current environmental baseline with the Project site as it exists as of the writing of this SEIR (i.e., with the SWF constructed and operational). Under this SWF without Project modifications Alternative, none of the Mitigation Measures (Project modifications) as analyzed within this SEIR would be implemented/constructed. Under this scenario, the evaporation pond and mechanical spray evaporators would continue to operate in their current condition, that is used to store and evaporate the reverse osmosis (RO) concentrate. Additionally, the Surface Water Treatment Plant (SWTP) would not be constructed, and no new/modified pipeline facilities or ancillary facilities proposed as part of the Project modifications would be constructed, and offsite RO concentrate disposal would not occur. The following discussion evaluates the potential environmental impacts associated with the SWF without Project modifications Alternative, as compared to impacts from the Project Modifications.



## Aesthetics

Under this SWF without Project Modifications Alternative, the existing site's visual character/quality would not be altered, since none of the SWF Project Modifications would be constructed. No construction activities would be required, and the short-term impacts to visual character and quality (grading, exposed soils, stockpiles, equipment staging, etc.) that have been identified for the Project modifications would not occur.

On a long-term operational basis, the SWF without Project Modifications Alternative would generally result in decreased impacts as compared to the Project Modifications. Under this Alternative, visible features such as the SWTP, Baker tanks, and articulating concrete block (ACB) lining (or similar erosion prevention measure) that would be installed at the San Simeon Creek channel bank would not be implemented. In addition, the security lighting necessary for safe operation of the Project Modifications would no longer be required under the SWF without Project Modifications Alternative, resulting in decreased light/glare impacts.

Although the SWF without Project Modifications Alternative would generally result in decreased impacts as compared to the Project Modifications, this SWF without Project Modifications Alternative would also not achieve environmental benefits associated with the SWF Project Modifications. Namely, the existing five mechanical spray evaporators (up to 12.6 feet in height) and associated three-sided sound enclosures would not be removed under this alternative. Thus, the impacts to views and visual character resulting from these components would continue. The nearby sensitive receptors (at San Simeon Creek Campground and Washburn Primitive Campground) would continue to experience views of the mechanical spray evaporators and sound enclosures. Additionally, motorists along State Route 1 (SR-1) would continue to experience views (although very briefly) of the mechanical spray evaporators and sound enclosures.

The SWF without Project Modifications Alternative would be environmentally inferior to the proposed Project Modifications regarding aesthetics. Although, the site's visual character would be further altered, the nearby sensitive receptors, as well as motorists along SR-1, would continue to experience views of the mechanical spray evaporators and sound enclosures. The aesthetic improvement created by removal of the evaporators/sound enclosures through repurposing of the evaporation pond would result in substantial benefits to the surrounding land uses. The SWF without Project Modifications Alternative would be environmentally superior to the proposed Project Modifications regarding light and glare, as new light sources would not be introduced.

## Air Quality

Short-term air quality impacts from demolition, grading, and construction activities associated with the Project Modifications would not occur with the SWF without Project Modifications Alternative, as new water facilities would not be constructed. The Project Modification's



construction-related emissions, which would be less than significant with mitigation incorporated, would be avoided.

Long-term operational emissions associated with the Project Modifications include energy consumption for the SWTP and RO concentrate disposal hauling (truck trip) emissions. These impacts were determined to fall below San Luis Obispo Air Pollution Control District (SLOAPCD) thresholds, resulting in a less than significant impact. However, since no new water facilities would be implemented and no offsite RO concentrate disposal would occur under the SWF without Project Modifications Alternative, impacts in this regard would be avoided/decreased, as compared to the Project Modifications.

The SWF without Project Modifications Alternative would be environmentally superior to the Project Modifications regarding air quality impacts, as no increase in construction-related, mobile, or stationary source emissions would occur. The SWF without Project Modifications Alternative would avoid the Project Modification's less than significant impacts related to air emissions.

## **Biological Resources**

The Project Modifications would result in less than significant direct and indirect impacts to special-status plant and animal species with mitigation incorporated. Under this SWF without Project Modifications Alternative, none of the Project Modifications' construction impacts to special-status plant and animal species would occur, as existing habitats and vegetation would not be disturbed due to new construction activities. The Project Modifications' adverse effects to riparian habitat and other sensitive natural communities, which would be less than significant with mitigation incorporated, would be avoided with the SWF without Project Modifications Alternative, as existing habitats would be retained and new water facilities would not be constructed. However, the Project Modifications have the added benefit of placing the surface discharge point for the San Simeon Creek lagoon water further south, to avoid biasing monitoring Well 16D1 water quality samples and more efficiently deliver surface water into the upper lagoon area to maintain water levels (resulting in beneficial biological impacts). Therefore, the Project Modifications would provide benefits towards protecting the lagoon area wetlands. Under the SWF without Project Modifications Alternative, no potential for impacts to wetlands would occur from construction activities, as the wetlands would not be disturbed and new land uses would not be constructed. Similarly, the Project Modification's impacts related to wildlife movement, which would be less than significant with mitigation, would not occur under the SWF without Project Modifications Alternative.

The SWF without Project Modifications Alternative would be environmentally superior to the Project Modifications, since no disturbance to the site would occur, and no impacts to plants, wildlife, or sensitive habitats would occur. However, the SWF without Project Modifications Alternative would be environmentally inferior to the Project Modifications, since it would not



have the benefit of relocating the SWF lagoon water discharge, which would provide protection to the San Simeon Creek Lagoon during extended dry periods. The relocated discharge would more efficiently deliver surface water into the upper lagoon area to maintain water levels (resulting in beneficial biological impacts). In addition, the Project Modifications would include repurposing existing evaporation pond and removal of the mechanical spray evaporators. This would result in additional biological benefits, since the existing operation of the pond/evaporators results in potential impacts to avian and other wildlife species as a result of evaporation pond operations (RO concentrate's hypersalinity). These potential hypersalinity impacts would no longer occur with implementation of the Project Modifications.

Overall, due to the various beneficial biological impacts that would occur under the Project Modifications, the SWF without Project Modifications Alternative is considered environmentally inferior to the Project Modifications concerning biological resources.

## **Cultural Resources**

The Project Modifications would result in less than significant impacts to undiscovered cultural resources, with mitigation incorporated. Under this SWF without Project Modifications Alternative, the potential impacts from the Project Modifications would be avoided, as ground disturbing activities would not occur. This SWF without Project Modifications Alternative would also avoid the proposed Project Modification's potential for disturbing human remains, which is concluded to be less than significant through compliance with existing State and local standards.

The SWF without Project Modifications Alternative would be environmentally superior to the Project Modifications regarding cultural resources. There would be no potential for impacting resources, since ground disturbing activities would not occur.

## **Hydrology and Water Quality**

The SWF without Project Modifications Alternative would not result in short-term impacts to water quality, since grading, excavation, and construction activities would not occur. The less than significant short-term water quality impacts that would occur with the Project Modifications would be avoided with this Alternative.

Implementation of the Project Modifications would slightly increase the rate and amount of stormwater runoff, and change its quality, by development of impervious surfaces and new water facilities. However, the Project modifications have the added benefit of repurposing the evaporation pond to potable water supply storage basin to further increase supply reliability. This repurposing indirectly provides greater protection of the existing groundwater supply by allowing CCSD water operators to alternate the source of supply among the two existing aquifer well fields, the SWF, as well as the stored raw water. Such resting and alternating of supply





sources aids in well recovery, maintaining groundwater basin storage, and in meeting unplanned conditions, such as the loss of a well due to mechanical failure or other causes.

The SWF Without Project Modifications Alternative would be environmentally inferior to the Project modifications. Although construction-related impacts and an increase in impervious area would not occur under the SWF Without Project Modifications Alternative, benefits related to improved groundwater conditions would not be realized. The Project modifications would make the most efficient use of the existing groundwater supplies and provide improved operational reliability through evaporation pond repurposing (i.e., potable water supply storage basin), and also improve protection to the San Simeon Creek lagoon area during extended dry periods from its lagoon water supply element.

## **Land Use and LCP Compliance**

The SWF without Project Modifications Alternative would not result in any potential conflicts with the California Coastal Act, North Coast Area Plan, or Coastal Zone Land Use Ordinance, which were determined to be less than significant with mitigation for the Project Modifications. The SWF without Project Modifications Alternative would therefore be environmentally superior to the Project Modifications regarding land use compatibility, since no new water facilities would be constructed.

## **Noise**

A maximum of approximately 2,350 round truck trips would occur during evaporation pond decommissioning (RO concentrate offsite disposal) and mechanical evaporator decommissioning. Construction noise associated with the Project Modifications would result in less than significant impacts. The Project Modifications' construction-related vibration impacts are also anticipated to be less than significant. Construction-related short-term noise impacts from stationary and mobile sources and vibration impacts would not occur with the SWF without Project Modifications Alternative. Therefore, the short-term construction-related noise and vibration impacts that would occur with the Project Modifications would be avoided with the SWF without Project Modifications Alternative.

As a result of the Project Modifications, a total of ten truck trips per day would be needed to transport the RO concentrate to the Kettleman Hills Facility (Kettleman) for offsite disposal. Kettleman is a fully permitted, 1,600-acre hazardous waste disposal facility approximately 85 miles from the Project site. However, ten daily truck trips would not represent a substantial percentage of current daily traffic volumes along access routes. Additionally, operating and maintaining the SWTP would require only two onsite staff. Combined, these would result in a total of approximately 24 daily round trips. A nominal amount of operational vehicle trips associated with the Project Modifications would occur. Thus, the Project Modifications' long-term mobile noise impacts would be less than significant. This nominal increase in operational



mobile noise sources that would occur with the Project Modifications would not occur with this Alternative. Therefore, although less than significant, the Project Modifications' noise impacts from operational mobile sources would be avoided.

The existing ambient noise levels in the Project area, which are presented in [Table 5.7-4, \*Existing Ambient Noise Measurements\*](#), would continue with the SWF without Project Modifications Alternative. Implementation of the Project Modifications would result in less than significant impacts from stationary noise sources, with mitigation incorporated. Minor increases in stationary noise levels are expected to occur under the Project Modifications due to operation of the SWTP and associated filtration equipment and pumps. The increases in stationary noise levels that would occur with the Project Modifications would not occur with the SWF without Project Modifications Alternative, because new infrastructure would not be constructed. Therefore, although less than significant, the Project Modifications' long-term noise impacts from stationary sources would be avoided with the SWF without Project Modifications Alternative.

While the SWF without Project Modifications Alternative would generally result in decreased impacts in comparison to the Project Modifications, this Alternative would also not achieve environmental benefits associated with the Project Modifications. Namely, the Project Modifications would result in removal of the existing five mechanical spray evaporators that currently result in the production of long-term operational noise in the Project area. When all five evaporators operate concurrently, noise levels exceed the CZLUO's acceptable daytime and nighttime exterior noise levels at multiple sensitive receptor locations. As such, the SWF without Project Modifications Alternative would result in greater impacts in this regard in comparison to the Project Modifications.

The SWF without Project Modifications Alternative would result in reduced impacts as compared to the Project Modifications in regards to short-term construction noise and long-term term mobile noise. However, the SWF without Project Modifications Alternative would result in increased long-term operational stationary noise impacts since the spray evaporators would remain, and a significant noise impact would occur. As such, this SWF without Project Modifications Alternative is considered environmentally inferior to the Project Modifications.

## **ABILITY TO MEET PROJECT OBJECTIVES**

The SWF without Project Modifications Alternative would accomplish the majority of the Project objectives, as identified above. However, a number of beneficial environmental effects associated with implementation of the Project Modifications (e.g., improvements in the Project site's visual/aesthetic character, biological benefits at San Simeon Creek and Lagoon associated with placing the surface discharge point for San Simeon Creek further south, groundwater benefits from evaporation pond repurposing, and reductions in stationary noise associated with the mechanical spray evaporators) would not occur under the SWF without Project Modifications Alternative.





## 7.3 “RO CONCENTRATE OCEAN OUTFALL DISPOSAL” ALTERNATIVE

With implementation of the Project Modifications, RO concentrate would be stored in Baker tanks on-site and then transported by truck to Kettleman Hills. Under the RO Concentrate Ocean Outfall Disposal Alternative, RO concentrate would instead be transported by truck to a wastewater treatment plant, or similar facility, equipped with a permitted ocean outfall disposal system. The RO concentrate would be combined with the permitted facility’s existing ocean outfall effluent before being discharged into the ocean.

A specific ocean outfall for the RO concentrate has not been identified by CCSD at this time. However, research to date has found that the South San Luis Obispo County Sanitation District does have a permitted program in place, which may accept certain treatment facility residual discharges provided they are with acceptable limits. The use of such a disposal method would be subject to inter-agency negotiations, as well as various permits that may be required from various regulatory resource agencies to ensure that significant impacts to the marine environment would not occur. A listing of potential outfall locations is provided below, and includes all permitted wastewater outfall facilities within the Central Coast RWQCB:

- South San Luis Obispo County Sanitation District Wastewater Treatment Plant (Existing outfall is shared with Pismo Beach, and 53 miles from Project site)
- Pismo Beach Wastewater Treatment Facility (51 miles from Project site);
- Morro Bay and Cayucos Sanitary District Wastewater Treatment Plant (24 miles from Project site);
- San Simeon Community Services District Wastewater Treatment Plant (2 miles from Project site);
- Santa Cruz Wastewater Treatment Plant (169 miles from Project site);
- Watsonville Wastewater Treatment Facility (152 miles from Project site);
- Monterey Regional Water Pollution Control Agency Regional Treatment Plant (143 miles from Project site);
- Carmel Area Wastewater District/Pebble Beach Community Services District Wastewater Treatment Plant (95 miles from Project site);
- Ragged Point Inn Wastewater Treatment Facility (20 miles from Project site);
- Avila Beach Community Services District (47 miles from Project site);
- Pismo Beach Wastewater Treatment Facility (51 miles from Project site);
- Goleta Sanitary District Wastewater Treatment Facility (135 miles from Project site);
- Santa Barbara (El Estero) Wastewater Treatment Facility (132 miles from Project site);
- Montecito Sanitary District Wastewater Treatment Facility (134 miles from Project site);
- Summerland Sanitary District Wastewater Treatment Plant (137 miles from Project site);
- and
- Carpinteria Sanitary District Wastewater Treatment Plant (143 miles from Project site).



As previously noted, research to date has found that the South San Luis Obispo County Sanitation District is a viable and potential outfall location. However, for the purposes of this alternatives analysis, it is conservatively assumed that the outfall location furthest from the Project site would be carried forward under this Alternative. In this instance, the location furthest from the site is the Santa Cruz Wastewater Treatment Plant, located 169 miles north of the Project site. As such, the analysis below compares impacts of disposal of RO concentrate via the outfall at the Santa Cruz Wastewater Treatment Plant, as opposed to the Project Modifications (i.e., disposal at Kettleman Hills). It is noted that all other aspects of the SWF and Project Modifications would remain the same.

## **IMPACT COMPARISON TO THE PROPOSED PROJECT**

### **Aesthetics**

Under the RO Concentrate Ocean Outfall Disposal Alternative, none of the facilities proposed as part of the Project Modifications would be altered. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. No changes to the site's aesthetic characteristics or light/glare conditions would occur. As such, the RO Concentrate Ocean Outfall Disposal Alternative would be neither environmentally superior nor inferior to the Project Modifications in this regard.

### **Air Quality**

Under this Alternative, none of the facilities proposed as part of the Project Modifications would be altered. As such, there would be no difference in impacts concerning short-term construction emissions, stationary source emissions, odors, or localized air quality. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. Since the Santa Cruz Wastewater Treatment Plant is located further from the Project site than Kettleman Hills (84 miles further away – nearly twice the distance), this Alternative would result in greater mobile source emissions, as compared to the Project Modifications, since trucks would be required to travel substantially further to dispose of RO concentrate.

The RO Concentrate Ocean Outfall Disposal Alternative would be considered environmentally inferior to the Project Modifications regarding air quality impacts. Because this Alternative involves substantially more truck hauling activities during long-term operations, the long-term operational mobile source emissions would be more than with disposal of the RO concentrate at the proposed Kettleman Hills site under the Project Modifications.



## Biological Resources

Under the RO Concentrate Ocean Outfall Disposal Alternative, none of the facilities proposed as part of the Project Modifications would be altered. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. As such, no increase or decrease in biological impacts at the proposed Project site would occur under this Alternative.

However, the discharge of RO concentrate to the ocean through the Santa Cruz Wastewater Treatment Plant ocean outfall (as well as any of the other ocean outfalls identified above) would be subject to meeting permitted concentration and loading limitations, and additional study may be further required through its NPDES permit. Unlike RO concentrate from a seawater desalination facility, the salt concentration in the SWF's RO concentrate is much lower due to its source water being brackish water, as opposed to pure seawater. For example, the SWF's total dissolved solids concentration would be approximately 6,000 mg/l, while background seawater would be approximately 32,000 mg/l. Additionally, the introduction of RO concentrate would be further diluted by existing wastewater effluent currently being disposed of within the existing outfall. Further discussions with the outfall agency representatives would be needed to confirm whether the programs and permits in place could accept the SWF's RO concentrate without requiring further detailed studies and permitting. If such efforts were needed, the Kettleman Hills site would be used until such supporting studies and permitting were completed. A detailed analysis of marine biological impacts would be required prior to implementation of this Alternative, and such a discharge would be subject to the State Water Resources Control Board (SWRCB) *Amendment to the Water Quality Control Plan for Ocean Waters in California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-Substantive Changes* (OPA). Permits from the SWRCB and California Coastal Commission would also be required for implementation of this Alternative. Subject to further analysis of impacts related to marine biological resources, the RO Concentrate Ocean Outfall Disposal Alternative would be considered environmentally inferior to the Project Modifications.

## Cultural Resources

Under the RO Concentrate Ocean Outfall Disposal Alternative, none of the facilities proposed as part of the Project Modifications would be altered. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. There would be no changes to the area where ground disturbance would occur. As such, the RO Concentrate Ocean Outfall Disposal Alternative would be neither environmentally superior nor inferior to the Project Modifications in this regard.



## Hydrology and Water Quality

Under the RO Concentrate Ocean Outfall Disposal Alternative, none of the facilities proposed as part of the Project Modifications would be altered. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. There would be no changes to drainage or water quality conditions under this Alternative. The introduction of RO concentrate, while much more dilute than background seawater concentrations, as well as being further diluted by existing wastewater effluent, could potentially alter marine water quality. To minimize this potential impact, the discharge of RO concentrate to the ocean through the ocean outfall would be subject to meeting permitted concentration and loading limitations required of the agency's permitting program, and as may be further required through its NPDES permit and OPA compliance. Further discussions with the outfall agency representatives would be needed to confirm whether the programs and permits in place could accept the SWF's RO concentrate without requiring further detailed studies and permitting. If such efforts were needed, the Kettleman Hills site would be used until such supporting studies and permitting were completed. Subject to further analysis of impacts related to hydrology and water quality, the RO Concentrate Ocean Outfall Disposal Alternative would be considered environmentally inferior to the Project Modifications.

## Land Use and LCP Compliance

Under this Alternative, none of the facilities proposed as part of the Project Modifications would be altered. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. No changes to the site's proposed facilities or land uses would occur. As such, the RO Concentrate Ocean Outfall Disposal Alternative would be neither environmentally superior nor inferior to the Project Modifications in this regard.

## Noise

Under this Alternative, none of the facilities proposed as part of the Project Modifications would be altered. As such, there would be no difference in impacts in regards to short-term noise generation, vibration, or long-term operational stationary noise. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. Since the Santa Cruz Wastewater Treatment Plant is located further from the Project site than Kettleman Hills (84 miles further away – nearly twice the distance), this Alternative would result in greater mobile source noise impacts, as compared to the Project Modifications, since trucks would be required to travel substantially further to dispose of RO concentrate.



The RO Concentrate Ocean Outfall Disposal Alternative would be considered environmentally inferior to the Project Modifications regarding noise impacts. Because this Alternative involves a longer truck hauling distance during long-term operations, the generation of long-term operational mobile noise would be more than with the Project Modifications.

### ABILITY TO MEET PROJECT OBJECTIVES

The RO Concentrate Ocean Outfall Disposal Alternative would accomplish the Project objectives, as identified above.

## 7.4 “ENVIRONMENTALLY SUPERIOR” ALTERNATIVE

According to CEQA Guidelines Section 15126.6(e), “No Project” Alternative, “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Table 7-1, Comparison of Alternatives, summarizes the comparative analyses presented above (i.e., the Alternatives compared to the proposed SWF with Project Modifications).

Table 7-1  
Comparison of Alternatives

Resource	No Project Alternative	SWF without Project Modifications Alternative	RO Concentrate Ocean Outfall Disposal Alternative
Aesthetics	Superior	Inferior	Equal
Air Quality	Superior	Superior	Inferior
Biological Resources	Equal	Inferior	Inferior
Cultural Resources	Superior	Superior	Equal
Hydrology/Water Quality	Inferior	Inferior	Inferior
Land Use and Planning	Superior	Superior	Equal
Noise	Superior	Inferior	Inferior

Based on the analysis provided above and Table 7-1, the No Project Alternative is the environmentally superior alternative, because it would avoid most impacts associated with development of the SWF and Project Modifications. Therefore, in compliance with CEQA requirements, an environmentally superior alternative among the other alternatives is identified below.

Among the other alternatives, the environmentally superior alternative is the RO Concentrate Ocean Outfall Disposal Alternative. While the RO Concentrate Ocean Outfall Disposal



Alternative would be environmentally inferior to the Project Modifications in a number of topical impact areas (i.e., air quality, biological resources, hydrology/water quality, and noise), it provides a feasible means of alternatively disposing of the RO concentrate from SWF operations. In addition, the RO Concentrate Ocean Outfall Disposal Alternative analysis provided above uses a highly conservative assumption concerning the location of the ocean outfall to be utilized by the SWF, assuming the location furthest away from the site (Santa Cruz Wastewater Treatment Plant). There are a number of other outfalls located substantially closer to the Project site that would be feasible options for RO concentrate disposal (and thus reducing associated air quality and noise impacts due to trucking distance). The RO Concentrate Ocean Outfall Disposal Alternative would also accomplish all of the identified Project objectives.

The SWF without Project Modifications Alternative was reviewed and determined not to be the environmentally superior alternative. Although this alternative is considered environmentally superior in a number of topical issue areas (i.e., air quality, cultural resources, and land use and planning), it is also environmentally inferior to the Project concerning aesthetics, biological resources, hydrology and water quality, and noise. Moreover, the SWF has already been constructed, and this SEIR analyzes the effects of incorporating the proposed Project Modifications. Thus, analyzing an alternative where the SWF is constructed but the Project Modifications are not is essentially an alternate version of a “No Project” Alternative based upon site conditions as they stand today. Thus, as noted above, the RO Concentrate Ocean Outfall Disposal Alternative has been identified as the environmentally superior alternative.

## **7.5 ALTERNATIVES CONSIDERED BUT REJECTED**

In accordance with CEQA Guidelines Section 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the CEQA Guidelines, among the factors that may be used to eliminate alternatives from detailed consideration are the alternative’s failures to meet the most basic project objectives, the alternative infeasibility, or the alternative’s inability to avoid significant environmental impacts. As previously discussed, and although not specifically listed below, the “No Project” Alternative was described as a theoretical project, as the SWF facility was built to respond to the drought and consequent water shortage emergency. Therefore, the “No Project” Alternative is also infeasible, as it would not meet a key project objective of addressing the current water shortage.

## **BACKGROUND AND HISTORY OF ALTERNATIVES CONSIDERED BUT REJECTED**

The CCSD has spent decades studying various long-term water supply alternatives including seasonal storage reservoirs, cross country transmission mains, and seawater desalination. The





unincorporated CCSD service area is environmentally sensitive, within the Coastal Zone, and has much of the offshore area being within the Monterey Bay National Marine Sanctuary, as well as the Cambria State Marine Park. Earlier attempts to expand the water supply stalled out due to a combination of factors, including the area's relatively remote location, environmental concerns, associated growth inducement concerns, and costs. The most current summary of long-term water supply planning is provided in the *Cambria Water Supply Alternatives Engineering Technical Memorandum* (2013 Engineering TM) (CDM Smith, November 27, 2013), which was administered by the U.S. Army Corps of Engineers, and is incorporated herein this reference. The 2013 Engineering TM was prepared to present a range of water supply alternatives for the CCSD for the purpose of providing long-term drought protection and seasonally augmenting Cambria's potable water supply. The 2013 Engineering TM also summarizes the four facilitated public workshops that were conducted on water supply alternatives and describes the technical two-step screening process that was applied. Refer also to [Section 3.2.2, Project History](#).

Based on proven decision science methodology, an evaluation technique called MAR was selected and used to compare and rank each alternative. MAR uses a criteria, metrics, and weights in order to calculate a normalized decision score for each alternative for the purposes of making objective comparisons and relative ranking.

A stakeholder process was used to: 1) obtain input on the water supply concepts; 2) help define the criteria and assign criteria weights; and 3) review the evaluation and ranking of alternatives. Stakeholders, who represented different perspectives of the Cambria public and who had an interest in the study, participated in four workshops. It is noted, however, that the stakeholders involved in these workshops were self-selecting and did not necessarily reflect all perspectives of the general Cambria public. Nonetheless, these stakeholders provided crucial input to the CCSD Board's deliberations.

Each alternative was ranked based on criteria, criteria weights, and metrics. Through the screening process, 8 out of 28 original water supply concepts were selected for further evaluation through formal environmental review. The 2013 Engineering TM ranked the brackish water alternative (Alternative Concept 5 - San Simeon Creek Road Brackish Water) the highest technically. In response to the drought emergency, the Alternative Concept 5 was further simplified and reduced in scope to develop the SWF project. This included reusing and repurposing as much of the existing CCSD infrastructure as possible, placing pipelines along the ground surface as opposed to trenching, using containerized, pre-assembled treatment units, and staying within the confines of the existing CCSD well field and effluent disposal property. None of the 2013 projects could have been completed within the 180 day time frame requirement. Therefore, the alternatives identified within the 2013 study were rejected from further consideration. These other alternatives are briefly described below.



## **SHAMEL PARK SEAWATER ALTERNATIVE**

Shamel Park is located approximately 0.2-mile west of the existing Cambria wastewater treatment plant, where seawater reverse osmosis (SWRO) desalination facility was proposed. The proposed Shamel Park Seawater Supply Alternative consisted of a subterranean seawater intake, a SWRO desalination facility next to the existing wastewater treatment plant, and concentrate return in Paleochannel C located off-shore at Santa Rosa Beach.

Shamel Park is located near the beach outside of the south boundary of Santa Rosa Creek Natural Preserve. The park is south of the Santa Rosa Creek Beach (or Moonstone Beach), which is part of San Simeon State Park. This area of the California coastline is within the Monterey Bay National Marine Sanctuary. Using the San Luis Obispo County-owned Shamel Park as the seawater intake and Monterey Bay National Marine Sanctuary concentrate return's entry points and construction sites was assumed to simplify an otherwise complicated permitting process.

This alternative was determined to be infeasible due to complicated and lengthy permitting process that would be required (from the California Coastal Commission, Regional Water Quality Control Board, California Department of Public Health, State Park, and San Luis Obispo County). Prior to the drought, the CCSD was never able to obtain a right of entry from State Parks to complete an earlier exploratory geotechnical investigation of the area's subterranean channel. Based on the complicated permitting required and unknown subterranean conditions in this area, the CCSD rejected this Alternative.

## **SAN SIMEON CREEK OFF-STREAM STORAGE ALTERNATIVE**

The San Simeon Creek Off-Stream Storage Alternative would divert water from San Simeon Creek during the wet weather season and would store the diverted water in three off-stream reservoirs for treatment and use during the dry weather season. The proposed seasonal water storage would provide an additional dry season water supply of 250 AF to the Cambria community. Key components of the Off-Stream Storage Alternative concept include San Simeon Creek water diversion wells, dams and water storage reservoirs, diverted water conveyance pipelines, a surface water treatment plant, a pump station for the product water, and a product water connection pipeline. It was determined that approximately 1,200 AF of storage would be required to provide a reliable annual yield of 250 AF of water supply.

Most of the San Simeon Creek Off-Stream Storage Alternative facilities would be located within the Coastal Zone Boundary, but outside of the limits of State Parks as well as other natural conservation areas. This Alternative is complex and would have required permitting a tall dam within the Coastal Zone, which would not be feasible due to the extensive time to complete such supporting permits. Permitting would be required from the State Water Resources Control Board, Division of Safety of Dams, Regional Water Quality Control Board, California Department of Public Health, U.S. Fish and Wildlife Service, California Department of Fish and Game,





California Coastal Commission, along with other building permits. It is also noted that the permitting process with the Division of Safety of Dams is particularly complex and lengthy. Additionally, substantial land acquisition could substantially slow down and further complicate implementation of this Alternative. Lastly, the area's drought also led to concerns that there would not be enough precipitation to fill the dam if it were to be constructed. For these reasons, the San Simeon Creek Off-Stream Storage Alternative was considered, but ultimately rejected.

## **MORRO BAY SHARED SWRO ALTERNATIVE**

The Morro Bay Shared Seawater Reverse Osmosis (SWRO) Alternative would consist of beach wells to provide seawater intake, an upgrade and upsizing of the existing Morro Bay-owned SWRO desalination plant, concentrate return in existing Morro Bay Power Plant cooling water outfall, and an approximate 18-mile long water pipeline to bring the product water to the Cambria community.

The Morro Bay Shared SWRO Alternative was not favored due to its cost, permitting requirement, and time to complete. Construction, as well as operations and maintenance costs, would be higher, relative to other alternatives considered. The pipeline within the California Department of Transportation (Caltrans) right-of-way (along Pacific Coast Highway) would be approximately 18 miles, and an agreement with other agencies would be required to co-locate facilities. Permitting would be required from the California Coastal Commission, Regional Water Quality Control Board, California Department of Public Health, the City of Morro Bay, and the Morro Bay-Cayucos Wastewater District. Additionally, the change of the one-through cooling system may require an alternative concentrate return method. For the reasons, the Morro Bay Shared SWRO Alternative was rejected.

## **ESTERO BAY MARINE TERMINAL ALTERNATIVE**

The Estero Bay Marine Terminal Alternative consists of an off-shore subterranean seawater intake at Dog Beach, a seawater RO plant located at an open lot approximately one mile on-shore along Toro Creek Road, concentrate return in the Morro Bay Power Plant cooling water outfall, and an approximately 16-mile long water pipeline to bring the product water to the Cambria community.

This alternative was not considered due to its costs, permitting complexity, and time to complete. Significant concerns included high construction costs, as well as operations and maintenance costs, long pipelines required in Caltrans right-of-way, and permitting for it HDD well and concrete return.

## **HARD ROCK WATER STORAGE AND RECOVERY ALTERNATIVE**

The Hard Rock Water Storage and Recovery Alternative would pump excess water from Santa Rosa Creek, treat the pumped water to remove iron and manganese, and then store the treated water in a confined hard rock aquifer during the wet season for its future extraction and use to



supplement the Cambria water supply during the dry weather season. The stored water would provide additional water supply of 250 AF to the Cambria community during the six month dry season.

Facilities proposed by this Alternative would include the existing Santa Rosa Creek well (Well SR4) with associated wellhead iron and manganese treatment facilities and a new pipeline for water conveyance to the Hard Rock site for aquifer storage. This Alternative would also need new injection and extraction wells, as well as a new RO water treatment plant to treat the stored water prior to distribution. A product water pump station, and associated brine pump and disposal pipeline, would be required for the connection to both the Cambria water distribution system and brine disposal site (located at the existing Cambria wastewater treatment plant).

During the wet weather season, water from Santa Rosa Creek Groundwater Basin (in excess to the existing water demand) would be pumped, treated for iron and manganese removal, and then conveyed to (and stored in) the Hard Rock aquifer. During the summer months, the stored water would be recovered from the aquifer, treated for groundwater total dissolved solids removal (including RO), disinfected, and pumped back to the Cambria distribution system for potable use.

In particular, the time to complete and costs outweighed the benefits of the Hard Rock Water Storage and Recovery Alternative. Other major issues consisted of the following:

- Land acquisition on privately-owned property;
- A large number of storage and recovery wells required to be spread over a large, remote geographical area, which increases project construction cost and added to the complexity for operations and maintenance; and
- Limited available data (including existing groundwater quality data) and possibly very low yield of the storage-and-recovery wells at the Hard Rock Aquifer.

For these reasons, the Hard Rock Water Storage and Recovery Alternative was rejected.

## **WHALE ROCK RESERVOIR ALTERNATIVE**

The Whale Rock Reservoir Alternative would pump excess surface water from San Simeon Creek and Santa Rosa Creek and then store the pumped water in the existing Whale Rock Reservoir during the wet weather season for future use during the dry weather season.

Most of the facilities for this Alternative would be located within the Coastal Zone, but outside of the limits of State Parks and other natural conservation areas. The key facilities required as part of this Alternative include all existing ground water wells along San Simeon Creek and Santa Rosa Creek, two new wells in the Santa Rosa Groundwater Basin, the existing water distribution



system, a new Cambria Pump Station, new water conveyance pipeline from Cambria to Whale Rock Reservoir, a new surface water treatment plant, and a new Whale Rock Pump Station.

During the wet weather season, water from San Simeon Creek and Santa Rosa Creek Groundwater Basins (in excess to the existing CCSD water demand) would be pumped and transferred from the existing Cambria water distribution piping system into a new Cambria Pump Station wet well located at the southeast tip of the Cambria community. In addition to the existing Well SR4, two new extraction wells at the Santa Rosa Creek Groundwater Basin would be required to capture the targeted excess flow.

The new Cambria Water Pump Station would consist of a 30,000 gallon wet well and two (one duty and one stand-by) pumps, each capable of pumping flow of 969 gpm. The new water conveyance pipeline would be installed along Pacific Coast Highway in Caltrans right-of-way. The ten inch diameter and approximately 16.5 mile long pipeline would be required to transfer the targeted water volume from Cambria to the Whale Rock Reservoir within 73 days. The new pipeline would be constructed of steel, high density polyethylene (HDPE), or a combination of both. The same transmission pipeline used to transfer water from Cambria to the Whale Rock Reservoir during the wet season for storage would be used to convey potable water from the new water treatment plant to Cambria during the dry season.

This alternative included a new water treatment plant proposed to be located in Cayucos just northwest of the existing Cayucos Water Treatment Plant. Besides its cost and time to complete, complex negotiations with the City of San Luis Obispo and San Luis Obispo County would be required for the use of their existing facilities, including the Whale Rock Reservoir. Building a 16.5 mile conveyance pipeline within Caltrans right-of-way would also require a complicated approval process. For these reasons, the Whale Rock Reservoir Alternative was rejected.

## **SAN SIMEON CSD RECYCLED WATER ALTERNATIVE**

The San Simeon Community Service District (CSD) Recycled Water Alternative involves diversion and pumping of wastewater from the San Simeon community to the CCSD-owned wastewater treatment plant in Cambria for treatment. The wastewater treatment plant generated secondary effluent that would then be filtered and disinfected to produce California Title 22 tertiary effluent for unrestricted non-body-contact irrigation, or other industrial use. Negotiations would include stipulating that 250-AF of recycled water produced for irrigation would offset 250 AF of potable water demand during the six months dry season.

A new equalization basin and wastewater pump station would be constructed at the existing San Simeon wastewater treatment plant. The new wastewater force main would be constructed along Pacific Coast Highway in Caltrans right-of-way. The existing Cambria wastewater treatment plant headworks, primary, and secondary would be upgraded for additional flows, and new tertiary treatment facilities would be added to produce California Title 22 tertiary effluent for



nonpotable reuse. Potential CCSD customers for the recycled water would be those previously identified by the CCSD's 2003 *Recycled Water Distribution System Master Plan*.

Conveyance lines and non-potable water services would be constructed in the Cambria area to distribute the reclaimed water. It is noted that the reclaimed water can be used only for businesses and irrigation of public land such as parks, cemeteries, school yards, highway slopes, and other public areas. Reclaimed water is not allowed for residential landscape irrigation.

For this reason, it was determined that limitation to use nonpotable recycled water only for business and irrigation of public areas may not generate enough demand for recycled water to offset the increased water demand of the Cambria community during the six months of dry weather conditions. San Simeon wastewater diversion alone would not provide the desired amount of water that would offset the increased water demand for Cambria. Cost and timing to complete this project, as well as its questionable supply and demand balance contributed towards disfavoring this alternative. Additionally, the construction of recycled water distribution pipeline along streets and roads, and permitting the pipeline in Caltrans right-of-way would further complicate the process. For these reasons, the San Simeon CSD Recycled Water Alternative was rejected.