

SECTION 9 OTHER CEQA CONSIDERATIONS AND ENVIRONMENTAL EFFECTS

9.1 Introduction

Section 15126 of the State CEQA Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. Along with other required elements evaluated elsewhere in this EIR, the EIR must also identify: (1) significant environmental effects that cannot be avoided if the proposed project is implemented and (2) significant irreversible environmental changes that would result from implementation of the proposed project. These effects are evaluated in this section. Additionally, this section provides a summary of other environmental effects found not to be significant based on the IWP Program EIR and the Initial Study for the proposed project (see the Notice of Preparation/Initial Study included in [Appendix A, Scoping Report City of Santa Cruz and Soquel Creek Water District \(scwd²\) Regional Seawater Desalination Project](#)).

9.2 Significant and Unavoidable Environmental Effects

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented. The environmental effects of the proposed project are analyzed in detail in [Section 5, Environmental Impact Analysis](#) of this EIR. Impacts are analyzed for all project components and related component alternatives, where relevant, and where impacts would differ between alternatives. Where necessary and feasible, environmental design features and mitigation measures have been identified to reduce impacts to less than significant. Accordingly, most of the potential environmental impacts of the proposed project can be reduced to less than significant through the implementation of such measures. However, if Plant Site A-2 were selected a potentially significant and unavoidable impact could result related to the removal of mature trees on this site. These trees may provide a secondary wind break that protects the Monarch butterfly overwintering habitat in Natural Bridges State Beach (NBSB). While proposed mitigation measures could minimize this impact, it may not be feasible to reduce the impact to less than significant. See [Section 5.3, Terrestrial Biological Resources](#) (Impact 5.3-3) for a detailed discussion of this impact.

It should be noted, however, that based on the conclusions of [Section 8.1, Proposed Project Components – Alternatives Summary Evaluation and Comparison](#), it is assumed that the proposed project would not involve the selection of Plant Site A-2, based on its current

configuration and related potentially significant resource impacts. Therefore, this unavoidable adverse impact would not occur with the proposed project.

9.3 Significant Irreversible Environmental Changes

As mandated by the CEQA Guidelines, the EIR must address any significant irreversible environmental change that would result from implementation of the proposed project. Specifically, pursuant to the CEQA Guidelines (Section 15126.2(c)), such irreversible changes could occur if:

- The project would involve a large commitment of nonrenewable resources;
- Irreversible damage could result from environmental accidents associated with the project;
- The primary and secondary impacts of the project would generally commit future generations to similar uses; and
- Irretrievable commitments of resources are not justified.

Construction of the proposed project would commit the plant site and intake pump station site to the uses identified in **Section 4, Project Description** for the foreseeable future, and thereby would limit the range of other possible uses that could be implemented on those sites in the future. As the range of alternative desalination plant sites and alternative intake pump station sites considered are located in developed and urbanized parts of the City of Santa Cruz, they are not viable for agricultural uses.

The alternative plant sites and intake pump station sites also do not contain any significant natural features that should be preserved for public recreation or open space purposes. They also generally do not contain significant natural resources that should be either conserved or reserved for other productive purposes. Proposed project facilities would adhere to identified creek setbacks as identified in the City's Creek and Wetland Management Plan, including those identified for: Arroyo Seco Creek adjacent to Plant Site A-3; an unnamed drainage adjacent to Plant Site A-2; Bethany Creek adjacent to the SI-4 intake pump station site; and the Neary Lagoon outlet channel adjacent to the SI-18 intake pump station site. Additionally, with the implementation of identified construction-phase mitigation measures, the proposed project would not have significant adverse effects on special-status species that may be located in marine, terrestrial, and aquatic habitats located in the project area, with the exception of impacts to monarch butterfly habitat related to Plant Site A-2, as discussed below (see **Section 5.2, Marine Biological Resources**, Mitigation Measure 5.2-4 and **Section 5.3**, Mitigation Measures 5.3-1a through 5.3-1d, and 5.3-5).

As noted in **Section 9.2, Significant and Unavoidable Environmental Effects**, however, the mature trees on Plant Site A-2 may provide a secondary wind break that protects the Monarch butterfly overwintering habitat in NBSB. To the extent that these trees provide this function,

their removal would result in a significant irreversible effect for the foreseeable future. New plantings recently installed along the northern edge of NBSB may ultimately replace the potential secondary wind break function that may be provided by the trees on Plant Site A-2 once they mature, but this would take a substantial amount of time. While proposed mitigation measures could minimize this impact, it may not be feasible to reduce the impact to less than significant (see **Section 5.3**, Mitigation Measures 5.3-3a and 5.3-3b). However, as indicated above, it is assumed that the proposed project would not involve the selection of Plant Site A-2, based on its current configuration and related potentially significant resource impacts.

As analyzed in the EIR, the project would not result in a significant irreversible change in the Monterey Bay marine environment. Operation of the proposed seawater intake system and discharge of brine would not result in significant marine water quality or marine biological resource impacts and would not cause marine populations to drop below self-sustaining levels or otherwise eliminate such species (see Impacts 5.2-1 and 5.2-2). Further, no important natural resources in the marine environment would be lost as a result of project implementation.

The project area does not contain any known features of significant cultural or historical value for which the project would cause irreversible changes. If the intake pump station site at SI-17 on the Municipal Wharf were selected, the free-standing pump station would be located immediately adjacent to the wharf and would be connected to the wharf via an access ramp. As indicated in **Section 5.8, Cultural Resources**, this pump station would not materially or irreversibly alter any of the character-defining features or characteristics, which make the wharf significant historically.

Approval and implementation of actions related to the proposed desalination project would result in an irretrievable commitment of non-renewable resources such as energy supplies and other construction-related materials. The energy resource demands would be used for construction, heating and cooling of buildings, transportation of people and goods, heating and refrigeration, lighting, treatment of desalinated water, brine disposal, and the movement of water between the City and District service areas. However, as indicated in **Section 5.9, Utilities and Service Systems**, while the operation of the proposed desalination plant would result in an increased use of energy and natural gas, it would not require new or expanded energy or natural gas supplies or distribution facilities, or conflict with applicable energy standards. Additionally, the proposed project would implement a number of environmental design features that would reduce energy demand (see further discussion below), GHG emissions, wastewater generation, and solid waste generation that would collectively reduce the demand for resources.

Energy consumed by the proposed project would not be likely to contribute to intermittent statewide energy shortfalls. Short-term interruptions in plant operations caused by power outages would be acceptable given the existing primary water supplies and existing treated water storage available in the distribution systems of both the City and District service areas. Proposed consumption of energy would be reduced through: (1) the high-efficiency devices, pumps, and motors incorporated into the project design; (2) the SWRO membrane configuration; (3)

compliance with the City's Green Building Program, and (4) the net carbon neutral operation of the proposed project, which includes various energy reduction project options (e.g., solar PV, micro-hydro turbines).

The proposed project would develop a desalination plant and pump stations that would handle some quantities of hazardous materials or engage in activities that have the potential to result in environmental accidents. However, the proposed project facilities would comply with applicable local, state, and federal regulations, as indicated in **Section 5.11, Hazards and Hazardous Materials**. As such, activities and operations associated with the proposed project would not have the potential to cause significant irreversible damage from environmental accidents.

Based on the above, the proposed project would not result in significant irreversible environmental changes.

9.4 Effects Found Not to be Significant

This section summarizes the environmental effects that were not found to be significant based primarily on the IWP Program EIR (City, 2005) and/or the Initial Study for the proposed project (see **Appendix A**). Other references are cited below.

9.4.1 Agriculture Resources

Important Farmland

The certified *City of Santa Cruz General Plan 2030 EIR* (General Plan 2030 EIR) contains an updated map of unique, prime and important farmlands based on statewide mapping that does not identify any designated farmland in the project area (see Figure 4.15-1 in City, 2012a). Additionally, The City's 2005 General Plan/Local Coastal Program Map EQ-5, Unique, Prime, and Important Farmland, did not identify any farmland designation on the proposed alternative desalination plant sites, alternative intake pump station locations, or other project components. Further, project sites where various project components would be located do not contain agricultural uses that would be converted or otherwise displaced by the proposed project. No impacts would occur.

Loss or Conversion of Forest Land

The proposed project would not result in the removal of forest land, as defined under Public Resources Code Section 12220(g). "Forest land" under this section encompasses "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." The definition is part of the California Forest Legacy Program Act of 2007 that encourages the long-term conservation of productive forest lands by providing an incentive to owners of private

forest lands to prevent future conversions of forest land and forest resources. The focus is on acquiring easements for conservation of forest resources.

The project area does not include land that meets this definition, and none of the project sites are zoned for Timberland Production as defined by Government Code section 51104(g). Therefore, the project would not convert forest land to non-forest use. No impacts would occur.

9.4.2 Geology and Soils

Introduction

Section 5.7, Geology and Soils addresses geologic, seismic, and soils hazards. No impacts would occur related to septic tanks and alternative wastewater disposal systems, as described below.

Septic Tanks/Alternative Wastewater Disposal Systems

Environmental effects can occur when septic tanks or alternative waste water disposal systems are proposed in areas having soils incapable of adequately supporting such systems. The proposed project does not propose the use of septic tanks or alternative waste water systems. The proposed project would utilize existing sewers and infrastructure for disposal of waste water. No impacts would occur.

9.4.3 Hazards and Hazardous Materials

Introduction

Section 5.11, Hazards and Hazardous Materials addresses hazards related to the use, storage, and transport of hazardous materials. No impacts would occur related to airport hazards, emergency plans, and wildland fire hazards, as described below.

Airport Hazards

The proposed project would not be located within the vicinity of a public airport or private air strip and therefore the project would not result in airport-related safety hazards. Bonny Doon Village Airport, a private use airport, is the closest airport and is located 8.5 miles northwest of the project area. No impacts would occur.

Emergency Plans

The proposed project would not interfere with emergency response plans or emergency evacuation plans. No impacts would occur.

Wildland Fire

The only project components that would be within any wildland fire hazard areas would be buried pipelines located near the DeLaveaga water storage tanks. As the pipelines would be buried, there would be no impacts from wildland fire hazards. No impacts would occur.

9.4.4 Land Use, Planning, and Recreation

Introduction

Section 5.4, Land Use, Planning, and Recreation addresses whether the proposed project would conflict with any applicable land use plans, policies, or regulations. No impacts would occur due to dividing a community or due to the need for new or expanded recreational facilities, as described below.

Physically Divide an Established Community

The potential locations for the proposed desalination plant are within an industrial area with existing adjacent land uses. Although the pipelines would traverse through established communities and urbanized areas, they would be below ground within existing right-of-ways. As such, the proposed desalination project would not physically divide an established community. No impacts would occur.

New or Expanded Recreational Facilities

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the proposed project would not induce substantial population growth from outside areas. Therefore, the proposed project would not result in the need for new or expanded recreational facilities. No impacts would occur. Impacts related to coastal access and coastal recreational areas are addressed in detail in **Section 5.4, Land Use, Planning, and Recreation** of this EIR.

9.4.5 Mineral Resources

The project area does not contain any known mineral deposits or active mineral extraction operations. According to the General Plan 2030 EIR, there are no mines or areas of known mineral resources within the City (City, 2012a). No impacts would occur.

9.4.6 Noise and Vibration

Introduction

Section 5.6, Noise and Vibration addresses whether the development of the desalination plant and related facilities would result in adverse noise and vibration. No impacts would occur due to airport related noise, as described below.

Airport Related Noise

The proposed project would not be located within the vicinity of a public airport or private air strip and therefore the project would not result in airport-related noise. Bonny Doon Village Airport, a private use airport, is the closest airport, and is located 8.5 miles northwest of the project area. No airport noise impacts would occur.

9.4.7 Population and Housing

The proposed project components would not displace existing housing or people and would not require the construction of replacement housing elsewhere. Therefore, no impacts related to housing or population displacement would occur. Impacts related to growth inducement are addressed in detail in [Section 6, Growth](#) of this EIR.

9.4.8 Public Services

Fire Protection

The proposed project would be served by existing fire services within existing service areas. The proposed project would be required to comply with the City Fire Code (Municipal Code Chapter 19.05), as relevant. The proposed project would not increase the need for fire protection services such that new or expanded fire stations or other facilities would be required. No impacts would occur.

Police Protection

The proposed project would be served by existing police services within existing service areas. The proposed project would not increase the need for police protection services such that new or expanded police stations or other facilities would be required. No impacts would occur.

Schools

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the proposed project would not induce substantial population growth from outside areas. The proposed project would not increase overall population and therefore would not increase the need for new or expanded school facilities. No impacts would occur.

Parks

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the proposed project would not induce substantial population growth from outside areas. The proposed project would not increase overall population and therefore would not increase the demand for new or expanded

park facilities. No impacts would occur. Impacts related to coastal access and coastal recreation areas are addressed in detail in [Section 5.4](#).

Other Public Facilities

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the proposed project would not induce substantial population growth from outside areas. Therefore, the proposed project would not result in the need for new or expanded libraries or other public facilities. No impacts would occur.

9.4.9 Traffic and Transportation

Introduction

[Section 5.12, Traffic and Transportation](#) addresses whether the proposed project would result in adverse traffic and transportation impacts. No impacts would occur in relation to air traffic patterns, increase hazards due to a design feature, or alternative transportation policies, as described below.

Air Traffic Patterns

The proposed project would not be located within the vicinity of a public airport or private air strip and therefore the project would not result in any change in air traffic patterns. Bonny Doon Village Airport, a private use airport, is the closest airport, and is located 8.5 miles northwest of the project area. No impacts would occur.

Increase Hazards Due to a Design Feature

The proposed project would not result in traffic hazards due to design features or incompatible uses, as there are no planned modifications to roads or transportation systems. No impacts would occur.

Alternative Transportation Policies

The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bike racks). The project would not result in any roadway improvements that could impact existing transit facilities, bike paths, bike lanes, etc. Traffic control during construction would be temporary and short-term and isolated to particular locations near the plant site, intake pump station site, and along the intertie alignment. No conflicts with alternative transportation policies would occur.