

## SECTION 2 INTRODUCTION

### 2.1 Purpose of the EIR

The City of Santa Cruz (City) and the Soquel Creek Water District (District), as joint Lead Agencies, have prepared this Draft Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines, to evaluate the potential environmental effects of the proposed scwd<sup>2</sup> Regional Seawater Desalination Project (proposed project). This project entails the construction and operation of a seawater desalination plant and related facilities with a maximum operating capacity of 2.5 million gallons per day (mgd) that would be shared by the City and the District. The CEQA Statute is codified as Public Resources Code (PRC) Sections 21000-21177, and the CEQA Guidelines are contained within California Code of Regulations (CCR), Title 14, Division 6, Chapter 3, Sections 15000–15387.

The EIR is an informational document that is required to: (1) identify the potentially significant environmental effects of the proposed project on the environment; (2) indicate the manner in which those significant effects can be avoided or significantly lessened via the implementation of potentially feasible mitigation measures; (3) identify a reasonable range of potentially feasible alternatives to the proposed project that would eliminate or substantially lessen any significant environmental effects; and (4) identify any significant and unavoidable adverse impacts that cannot be mitigated or otherwise reduced. According to the CEQA Guidelines, “feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. The EIR provides information about the potential effects of the proposed project on the local and regional environment to the Lead Agencies, Responsible and Trustee Agencies, and the public reviewing this project.

The decision-making bodies of the Lead Agencies are required to consider the information in this EIR, along with any other relevant information, in making their decisions about the proposed project. Although the EIR does not determine the ultimate decision that will be made regarding approval and implementation of the proposed project, CEQA requires the City Council and the District Board of Directors to consider the information in the EIR, and, if they choose to approve the project, to make findings regarding each significant effect identified in the EIR. Under CEQA, a Lead Agency’s decision-making process includes more than one step. The first step is to consider whether to “certify” the final EIR for a proposed project. Notably, “certification” does not, by itself, indicate that decision makers are intending to approve the project. Rather, although certification is a necessary precondition to project approval, it is possible for a decision-making body to certify a final EIR and then deny a project.

Certification of a final EIR involves a three-part finding: first, that the “final EIR has been completed in compliance with CEQA”; second that the “final EIR was presented to the decision-making body of the Lead Agency and that the decision-making body reviewed and considered

the information contained in the final EIR”; and third, that the “final EIR reflects the Lead Agency’s independent judgment and analysis” (CEQA Guidelines, Section 15090.)

After certifying a final EIR, Lead Agency decision makers are in a position to approve a project, if they so choose. In doing so, as described in CEQA and the CEQA Guidelines, they will be subject to the statutory duty to avoid or substantially lessen significant environmental effects, *where feasible*. This duty is effectuated through the adoption of statutorily-mandated findings adopted as part of the actions approving the project. These findings must address how agency decision-makers have dealt with each of the significant effects of a proposed project. Possible findings are:

- (i) that the agency has adopted mitigation measures or alternatives to avoid or substantially lessen the significant effects;
- (ii) that the effects can be, or have been, mitigated by other public agencies, which should adopt, or have adopted, measures to address the effects; or
- (iii) that proposed mitigation measures or alternatives are infeasible. Even after imposing all feasible means of avoiding or substantially lessening such effects, however, a public agency may still approve a project with unmitigated significant effects, provided that the agency decision-makers issue a “statement of overriding considerations” that identifies what decision-makers believe to be the project’s economic, social, technological, legal, and other benefits, including any regional or statewide benefits, that render the unmitigated effects “acceptable.”

The Santa Cruz City Council and the District Board of Directors, as joint Lead Agencies, must certify the Final EIR prior to making the decision to approve, deny, or modify the proposed project. Other agencies, known as Responsible Agencies, may also use this EIR in their permit review and/or approval processes.

## 2.2 EIR Review Process

### 2.2.1 Previous Environmental Review

The *Integrated Water Plan Program Environmental Impact Report* (State Clearinghouse #203102140) (IWP Program EIR) was prepared and certified by the City Council in 2005 (City, 2005a). This document evaluated the IWP elements, including fully implementing the City’s Water Conservation Plan, curtailing water use during droughts, and developing a supplemental water supply consisting of a seawater desalination plant and related facilities, to address water supply shortages during drought.

In accordance with the CEQA Guidelines, a Program EIR may be prepared on a series of actions, such as the IWP elements noted above, that can be characterized as one project, and are related in some way. The IWP Program EIR evaluated both a City-only and a regional desalination

project in conjunction with the District. The IWP Program EIR provides programmatic environmental analysis of the regional desalination project currently being evaluated by both agencies, and thus sets the stage for the project-level analysis of the 2.5-mgd desalination plant evaluated in this EIR. Additionally, the IWP Program EIR evaluated the potential incremental expansions of the plant up to 4.5 mgd that were contemplated in the IWP.

According to the CEQA Guidelines, Section 15168, subdivision (d), a “program EIR can be used to simplify the task of preparing environmental documents on later parts of the program.” For example, the program EIR can “[b]e incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole,” and can “[f]ocus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.” The IWP Program EIR is hereby incorporated by reference and referred to throughout this EIR. This document is available for review at the City of Santa Cruz Water Department offices and on the City’s website.<sup>1</sup>

## 2.2.2 Current Environmental Review

This EIR provides a project-level analysis of the proposed 2.5-mgd desalination plant and related facilities. Consistent with the above-described rules governing program EIRs, this project-specific EIR does not reexamine or question the fundamental City policy issues addressed in the Program EIR for the IWP and resolved through the City Council’s adoption of the IWP in its final form. As indicated above, the programmatic environmental analysis of the IWP Program EIR sets the stage for this more focused analysis. This EIR provides additional environmental analysis as warranted to adequately address the current definition of the project, background conditions, and regulatory requirements. This EIR also incorporates all relevant IWP mitigation measures or updates, and expands relevant mitigation measures as may be needed to address project impacts.

The CEQA Guidelines indicate that a “project” means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment (Section 15355). The Guidelines also indicate that reasonably foreseeable probable future projects or future project phases should also be evaluated (Sections 15355 and 15165, respectively). Although the potential that the proposed plant and related facilities could be expanded in the future is not part of the “project” being considered in this EIR or proposed at present by the City and District, such future expansion is, as a legal matter, considered to be reasonably foreseeable under CEQA, because such expansion

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<sup>1</sup> The IWP Program EIR and other referenced documents in this EIR are available for review at the City of Santa Cruz Water Department offices at 212 Locust Street, Suite D, Santa Cruz, California 95060, Monday through Thursday 8:00 a.m. to Noon and 1:00 p.m. to 5:00 p.m., except holidays. Likewise, these documents are available for review at the Soquel Creek Water District offices at 5180 Soquel Drive, Soquel, CA 95073, Monday through Friday 8:00 a.m. to Noon and 1:00 p.m. to 5:00 p.m., except holidays. The IWP Program EIR is also available online at [http://www.scwd2desal.org/Page-Documents\\_Other.php](http://www.scwd2desal.org/Page-Documents_Other.php).

was identified in the IWP and IWP Program EIR and is also identified in a number of other current City planning and policy documents. Additionally, the underground components of the proposed project would be sized to accommodate future expansion if such expansion were to ever occur.

While it is unknown if or when such an expansion or expansions would take place, this EIR provides an updated program-level analysis within each topical section to address the potential future expansions of the project. It should be noted, however, that subsequent project-specific environmental review of any potential future expansion(s) would be required along with a variety of approvals from the City and regulatory agencies. Given that potential future expansion is not anticipated to be required by the District, subsequent approvals from the District for such expansions would not be required. Opportunities for public comment will arise if and when any such future expansion(s) are ever formally proposed.

The environmental review process for this EIR is further described below.

## ***Scoping***

The City and District circulated the Notice of Preparation (NOP)/Initial Study (IS) for the proposed project to local, state, and federal agencies and other interested parties on November 15, 2010, pursuant to CEQA Guidelines, Section 15082. An extended public review period was set from November 15, 2010 to January 10, 2011. The NOP/IS provided a description of the proposed project and its location, and identified potential environmental effects of the proposed project that would be evaluated in this EIR.

Two EIR scoping meetings were held on December 8, 2010—one at the First Congregational Church in the City of Santa Cruz, and one at New Brighton Middle School in the City of Capitola—to solicit input from interested agencies, individuals, and organizations. A copy of the NOP/IS, mailer, advertisements, scoping meeting materials, and agency and public comments received are included in **Appendix A, Scoping Report City of Santa Cruz and Soquel Creek Water District (scwd<sup>2</sup>) Regional Seawater Desalination Project**. A summary of comments received during the scoping period is provided at the beginning of each technical section of this EIR (**Sections 5 through 8**).

## ***Draft EIR***

This Draft EIR will be available for public and agency comment for a 60-day period, beginning on May 13, 2013, and concluding on July 15, 2013. CEQA requires a 45-day public review period for draft EIRs submitted to the State Clearinghouse for review (PRC, Section 21091), and the CEQA Guidelines indicate that the public review period should not be longer than 60 days except under “unusual circumstances” (Section 15105[a]).

During the public comment period, written comments on the adequacy of the Draft EIR must be submitted by all interested public agencies, organizations, community groups, and individuals to:

Heidi Luckenbach, scwd<sup>2</sup> Desalination Program Coordinator  
City of Santa Cruz, Water Department  
212 Locust Street, Suite C  
Santa Cruz, CA 95060  
Email: [hluckenbach@cityofsantacruz.com](mailto:hluckenbach@cityofsantacruz.com)

Electronic copies of the Draft EIR are available on the scwd2 Desalination Program website at [http://www.scwd2desal.org/Page-Documents\\_EIR\\_Reports\\_Docs.php](http://www.scwd2desal.org/Page-Documents_EIR_Reports_Docs.php). The Draft EIR will also be available for public review during the 60-day comment period at the following locations:

- Public libraries within the agencies' service areas
  - Central Branch, 224 Church Street, Santa Cruz
  - Branciforte Branch, 230 Gault Street, Santa Cruz
  - Garfield Park Branch, 705 Woodrow Avenue, Santa Cruz
  - Live Oak Branch, 2380 Portola Drive, Santa Cruz
  - Capitola Branch, 2005 Wharf Road, Capitola
  - Aptos Branch, 7695 Soquel Drive, Aptos
  - Porter Memorial Library, 3050 Porter Street, Soquel
  - La Selva Branch, 316 Estrella Avenue, La Selva Beach
  - Scotts Valley Branch, 251 Kings Village Rd, Scotts Valley
  - Porter Memorial Library, 3050 Porter Street, Soquel
- Soquel Creek Water District Offices, located at 5180 Soquel Drive, Soquel California
- City of Santa Cruz Water Department, located at 212 Locust Street, Suite C, Santa Cruz California

As noted above, written comments can be submitted throughout the 60-day public comment period. Additionally, two public meetings will be held to inform the public about the Draft EIR, and to receive written and oral comments on the adequacy of the information presented in the Draft EIR. Two meetings are being held at different stages during the public comment period and at different times of day/evening in order to accommodate interested participants, including both agency personnel, who typically work during daylight hours on weekdays, and the public at large, for whom evening or night meetings are typically more convenient. Generally the same information will be provided at both meetings.

**PUBLIC MEETINGS**

**MONDAY, JUNE 3, 2013**

Seacliff Inn

7500 Old Dominion Court

Aptos, CA 95003

Time: **12:00 PM – 2:30 PM**

**MONDAY, JULY 1, 2013**

First Congregational Church

900 High Street

Santa Cruz, CA 95060

Time: **6:30 PM – 9:00 PM**

The City and the District encourage public agencies, organizations, and all other interested persons to provide written comments on the Draft EIR prior to the end of the 60-day public review period. Section 15204(a) of the CEQA Guidelines provides guidance on the focus of review of draft EIRs as follows:

In reviewing draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a Lead Agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, Lead Agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.

***Final EIR***

Following the close of the public and agency comment period on this Draft EIR, written responses will be prepared for all significant environmental issues raised in comments received during the public review period. The comments, responses, and changes to the Draft EIR document as a result of comments and responses will be published in the Final EIR document. The Draft EIR and Final EIR documents will constitute the Final EIR. As required by CEQA, written response to comments submitted by public agencies will be provided to those agencies for review at least 10 days prior to the Lead Agencies' consideration of certification of the Final EIR. The Final EIR will also be available in advance of consideration of EIR certification at the locations identified above, on the City's and District's websites, and the scwd<sup>2</sup> website.

## ***Mitigation Monitoring and Reporting Program***

CEQA requires that a program to monitor and report on mitigation measures be adopted by Lead Agencies as part of the project approval process. CEQA requires that such a program be adopted at the time the agencies determine to carry out a project for which an EIR has been prepared, to ensure that mitigation measures identified in the EIR are implemented.

The City Council adopted a mitigation monitoring and reporting program (MMRP) in 2005 as part of the IWP approval that applies to the proposed project. The IWP MMRP will be revised and updated as a result of the project-level analysis conducted in this EIR. Ultimately, if approved, this revised MMRP will replace the MMRP adopted by the City Council in 2005. While there are two agencies involved, the revised MMRP will be a single program prepared for the proposed project, which will identify the parties responsible for implementation of each mitigation measure.

## ***Lead Agencies' Actions***

The Final EIR will be considered by the City Council and the District Board of Directors in a joint public meeting, or meetings, and certified if it is determined to be in compliance with CEQA as described above in **Section 2.1, Purpose of the EIR**. Upon certification of the EIR, the Lead Agencies will subsequently consider a proposed project for conditional approval, subject, ultimately, to a vote of the City of Santa Cruz electorate. The Soquel Creek Water District may also submit the question to its electorate. Considering the project for conditional approval will be done in conjunction with consideration of an updated MMRP, and proposed written findings about the project and each significant effect. In addition, as explained in **Section 2.1**, if the Lead Agencies conditionally approve a project that will result in significant effects that cannot be avoided or reduced to less than significant, the agencies will state in writing the specific reasons to support their actions based on the Final EIR, and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

## **2.3 EIR Organization**

The Draft EIR is organized as described below.

**Section 1, Executive Summary:** provides a project summary, including an overview of the proposed project and component alternatives, impacts, mitigation measures, and levels of significance after mitigation, a summary of project alternatives, areas of controversy, and issues to be resolved.

**Section 2, Introduction:** provides a description of the environmental review process, including the public scoping process, the Draft EIR public review, the Final EIR preparation process, Lead Agency actions, and a description of the EIR organization.

**Section 3, Project Background:** provides detailed background information about the decision made by both agencies to pursue an evaluation of the feasibility of the proposed desalination project to provide a supplemental water supply.

**Section 4, Project Description:** provides a detailed description of the proposed project, including information about the project objectives, project location, technical characteristics of the project, construction details, operational and maintenance details, environmental design features, potential for future project expansion, and required permits and approvals.

**Section 5, Environmental Analysis:** discusses the existing conditions for each environmental issue area, describes the methodology for significance determination, identifies short-term and long-term environmental impacts associated with the project and their level of significance before mitigation, recommends potentially feasible mitigation measures to reduce the significance of impacts, and identifies any significant and unavoidable impacts that cannot be mitigated. The environmental issues discussed in this Draft EIR are listed below by subsection:

- Section 5.1, Hydrology and Water Quality
- Section 5.2, Marine Biological Resources
- Section 5.3, Terrestrial Biological Resources
- Section 5.4, Land Use, Planning, and Recreation
- Section 5.5, Air Quality and Climate
- Section 5.6, Noise and Vibration
- Section 5.7, Geology and Soils
- Section 5.8, Cultural Resources
- Section 5.9, Utilities and Service Systems
- Section 5.10, Aesthetics
- Section 5.11, Hazards and Hazardous Materials
- Section 5.12, Traffic and Transportation

**Section 6, Growth:** provides a discussion of growth in the local and regional community, a determination about growth-inducing impacts of the proposed project, and a discussion about related secondary effects of growth.

**Section 7, Cumulative Impacts:** provides an analysis of the project's contribution to cumulative impacts, which are the effects that may occur as a result of the proposed project together with other projects causing related impacts.

**Section 8, Alternatives:** describes the alternatives to the proposed project and their potential feasibility, and analyzes their environmental impacts and ability to achieve project objectives compared to the proposed project. The section includes the following subsections:

- Section 8.1, Proposed Project Components – Alternatives Summary Evaluation and Comparison
- Section 8.2, Alternatives to the Proposed Project Considered But Eliminated
- Section 8.3, Alternatives to the Proposed Project

**Section 9, Other CEQA Considerations and Environmental Effects:** identifies the significant and unavoidable environmental impacts, significant irreversible environmental changes, and effects found not to be significant.

**Section 10, List of Preparers and Contributors:** identifies the Lead Agencies, the persons who prepared or otherwise had a role in the Draft EIR and/or technical appendices, and all federal, state, and local agencies and other organizations and individuals who were consulted during its preparation.

**Section 11, References:** identifies reference sources used during the preparation of the Draft EIR.

**Appendices:** includes documentation of the environmental review process and provides a range of technical and engineering studies that support the project description, analysis of impacts in this EIR, and alternatives. The appendices included in this Draft EIR are listed below:

- **Appendix A, Scoping Report City of Santa Cruz and Soquel Creek Water District (scwd<sup>2</sup>) Regional Seawater Desalination Project:** provides all of the documentation developed during the scoping process, including the NOP/IS, mailer, advertisements, scoping meeting materials, and all agency and public comments received during the scoping period.
- **Appendix B, Evaluation of Potential for Additional Long-Term Water Demand Reduction through Water Conservation Measures:** provides a preliminary analysis of the potential for additional long-term reduction in water demand associated with both ongoing and new conservation programs through 2030 for the City of Santa Cruz. This evaluation provides an interim estimate of conservation savings until the formal Long-Term Water Conservation Master Plan is completed for the City in 2014.

- **Appendix C, Evaluation of Future Water Supply Shortages and Need for Supplemental Supply Given Probable Habitat Conservation Plan Conservation Strategy Flow Requirements:** provides potential near- and long-term water supply conditions for the City of Santa Cruz given a range of possible outcomes from the Habitat Conservation Plan development process. Near- and long-term demands are analyzed with respect to conservation strategy scenarios for the purpose of understanding potential and likely water supply shortages.
- **Appendix D, scwd<sup>2</sup> Final Seawater Reverse Osmosis Desalination Pilot Test Program Report & Appendices:** evaluates alternative treatment systems for the desalination plant. The Pilot Test Program Report provides detailed documentation of testing and results of pretreatment technology, seawater reverse osmosis (SWRO) technology, water quality, and treatment processes.
- **Appendix E, Proposed scwd<sup>2</sup> Desalination Project Watershed Sanitary Survey:** identifies potential sources of contaminants in the watershed draining to the Monterey Bay in the vicinity of the proposed intake for the plant. The Watershed Sanitary Survey also characterizes the quality of the source water for the plant. Several contaminants were evaluated and monitored including potential hazardous materials spills, algae blooms, and first large storm events.
- **Appendix F, scwd<sup>2</sup> Seawater Desalination Program Offshore Geophysical Study:** evaluates collected data on sub-seafloor sands and coastal geology. Hydraulic qualities of the sands, gravels and fine sediment were determined from shallow sediment samples. The shape and size of the San Lorenzo River alluvial basin was defined along with its capacity to be used for a subsurface intake.
- **Appendix G, City of Santa Cruz Water Department & Soquel Creek Water District scwd<sup>2</sup> Desalination Program Open Ocean Intake Effects Study:** evaluates the impacts of an open-ocean intake system through wedge wire screen intakes on organisms within the marine environment. The study provides documentation on the operation and technical feasibility of open-ocean intakes, documents the wedge wire screen's ability to provide adequate flow to the desalination plant, and measures effects on impingement and entrainment of marine organisms.
- **Appendix H, scwd<sup>2</sup> Seawater Desalination Intake Technical Feasibility Study:** identifies and studies feasible options for an intake system including open-ocean intakes and subsurface intakes. The study identified screened, open-ocean intakes as the "apparent best intake approach".
- **Appendix I, Seawater Intake Facility Conceptual Design Report scwd<sup>2</sup> Regional Seawater Desalination Project:** evaluates intake component locations and design elements for the seawater intake and conveyance system, focusing on areas between Mitchell's Cove and the San Lorenzo River. Conceptual designs for the key elements of the intake system are provided for eight feasible locations.

- **Appendix J, Dilution Analysis for Brine Disposal via Ocean Outfall:** determines how a combined discharge would meet discharge needs for permit compliance and meet ambient salinity levels of receiving waters. The analysis identifies how the plant would comply with existing discharge permits.
- **Appendix K, Site Selection for Seawater Desalination Treatment Plant:** provides a review and summary of the other sites considered and evaluated for the proposed desalination plant.
- **Appendix L, scwd<sup>2</sup> Seawater Desalination Plant: Phase 1 Preliminary Design – Volume 1 – Report & Volume 2 – Drawings:** summarizes the preliminary design for the proposed desalination plant that would produce up to 2.5 mgd of drinking water.
- **Appendix M, Santa Cruz Seawater Desalination Facility, Technical Memorandum on New Storm Water Regulations for the Central Coast Region of the Regional Water Quality Board:** identifies the new stormwater regulations for the Central Coast Regional Water Quality Control Board that will take effect in September 2013 and evaluates the implications of these regulations on the stormwater management plan for the proposed project.
- **Appendix N, scwd<sup>2</sup> Regional Seawater Desalination Project EIR Project Construction Assumptions:** identifies project components and specifies construction assumptions associated with construction impacts such as construction schedule, construction hours, number of workers, construction footprint, pipeline/conveyance assumptions, staging and laydown areas, and cut and fill assumptions.
- **Appendix O, Summary of scwd<sup>2</sup> Energy and GHG Reduction Approach:** identifies energy and greenhouse gas impacts of the project, identifies means to reduce energy and greenhouse gases, identify various regulations and legal requirements the project must comply with, and provides a framework for energy and greenhouse gas reductions for the project that could meet the net carbon neutral commitments by the City of Santa Cruz and Soquel Creek Water District.
- **Appendix P, City of Santa Cruz and Soquel Creek Water District Agreements Related to the Proposed Seawater Desalination Projects:** provides the three agreements between the City and the District generated to date that address the proposed desalination project, including: (1) the creation of the joint task force between the two agencies (2007 Agreement); (2) agreements endorsing the recommendations of the joint task, such as the principal elements of the project description, key steps in the environmental review process with the City and District acting as co-Lead Agencies, water and cost allocations, and a number of procedures (2010 Agreement); and (3) amendment to the prior agreements that address how the City and District will work together during the EIR certification and project approval processes (2012 Amendments to prior agreements).

- **Appendix Q, Water Quality Data:** contains a range of water quality data for existing drinking water and for desalination source water and WWTF effluent.
- **Appendix R, scwd<sup>2</sup> Regional Seawater Desalination Project Biotic Resources Survey Report:** provides a detailed description of the project's existing setting and documents terrestrial biological resources in the project area such as vegetation, wetlands, special-status species, and any sensitive habitats.
- **Appendix S, Desalination Project for the City of Santa Cruz and Soquel Creek Water District Report on Habitat Assessment for Overwintering Monarch Butterflies:** provides a habitat assessment survey conducted throughout the project area to determine if any portions function as winter roosting sites or overwintering habitat for the Monarch butterfly.
- **Appendix T, scwd<sup>2</sup> Regional Seawater Desalination Project EIR Air Quality and Climate Calculations:** provides details regarding anticipated construction and project air pollutant and greenhouse gas emissions.
  - **Appendix T-1, scwd<sup>2</sup> Regional Seawater Desalination Project EIR Construction Emissions:** provides details regarding the source types and models used in the analysis, the equipment inventory, assumptions, and all data used to calculate construction-related emissions.
  - **Appendix T-2, scwd<sup>2</sup> Regional Seawater Desalination Project EIR Operational Emissions:** provides operational emissions calculations and details, including the emission models used.
- **Appendix U, Long-Term Noise Measurement Data:** provides charts showing the hour-by-hour distribution of noise levels at each of the long-term measurement locations. Noise measurement data measures existing baseline noise levels at noise sensitive land uses in the vicinity of the various project components.
- **Appendix V, Cultural Resources Study for scwd<sup>2</sup> Regional Seawater Desalination Project (confidential):** documents the results of a cultural resources inventory and assessment conducted for the proposed project, consisting of a literature review, a field survey, coordination with interested parties, and coordination with the California Native American Heritage Commission, and assessment of impacts and mitigation measures.
- **Appendix W, Paleontological Record Search (confidential):** provides the paleontological records search results including identification and location of known paleontological resources in or near the project area.
- **Appendix X, Preliminary Assessment for Disposal of Waste Flows from the Proposed scwd<sup>2</sup> Seawater Desalination Plant to the City of Santa Cruz Sanitary Sewer System:** assesses potential impacts of the proposed desalination plant with respect to disposal of waste flows to the City's wastewater collection system and processing the waste flows at the City's Wastewater Treatment Facility (WWTF).

- **Appendix Y, Potential Hazardous Materials Release Sites:** provides a list of all known hazardous materials release sites within a quarter-mile of the project area. Also included are the Datamap<sup>TM</sup> Corridor Study reports generated by Environmental Data Resources Inc. for the project area, which identify sites within one mile of the project area that are listed in various environmental databases.
- **Appendix Z, Current and Potential Future Opportunities for Indirect and Direct Potable Reuse of Recycled Water:** summarizes the current regulatory climate and activities in the indirect and direct potable use arenas, comments on the feasibility of current indirect or direct reuse projects for the City and District, and explores future opportunities.
- **Appendix AA, Intake Alternatives - Review and Status of Subsurface Intakes:** provides a review and status of subsurface intake systems currently used elsewhere in the world to assess their operational characteristics and other factors.
- **Appendix BB, Desalination Plant Hydraulic Modeling and Analysis:** provides the hydraulic modeling and analysis in support of the City-District Intertie System portion of the proposed project.
- **Appendix CC, Comparison of Desalination Technologies:** reviews other desalination technologies that are available or in development and draws conclusions about the appropriate technologies recommended for use in the proposed project.
- **Appendix DD, Additional Seawater Reverse Osmosis Brine Disposal Options:** reviews and evaluates other potential disposal or reuse options for brine generated by the proposed project.
- **Appendix EE, Desalination Project Growth Review:** provides a review of potential General Plan buildout for the portions of the City and District water service areas that are located in Santa Cruz County and the City of Capitola, to support the growth analysis provided in the EIR.
- **Appendix FF, Conceptual-Level Cost Comparison of Water Supply Alternatives:** provides a conceptual-level cost comparison of water supply alternatives for the City and District to meet their supplemental water supply objectives.
- **Appendix GG, Estimated Cumulative Effects of scwd<sup>2</sup> Desalination Plant Intake on Fish Populations:** evaluates the cumulative effects of the proposed project and other existing and proposed open-ocean intakes on fish populations.