

# 4 Environmental Setting, Impacts, and Mitigation Measures

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## 4.1 Introduction to Analysis

This chapter provides a project-level analysis of the physical environmental effects of implementing the Laguna Creek Diversion Retrofit Project (Proposed Project). The following sections within this chapter evaluate the environmental impacts of the Proposed Project:

- 4.2 – Impacts Not Found to Be Significant
- 4.3 – Air Quality
- 4.4 – Biological Resources
- 4.5 – Cultural Resources and Tribal Cultural Resources
- 4.6 – Energy
- 4.7 – Geology and Soils
- 4.8 – Greenhouse Gas Emissions
- 4.9 – Hazards and Hazardous Materials
- 4.10 – Hydrology and Water Quality
- 4.11 – Land Use and Planning
- 4.12 – Noise
- 4.13 – Transportation

### 4.1.1 Scope of Analyses

#### 4.1.1.1 Section Organization

Each environmental resource section listed above generally has a similar format as described below.

- **Existing Conditions.** This section provides a general overview of the existing physical environmental conditions related to the topic being addressed.
- **Regulatory Framework.** This section describes applicable federal, state, and local, laws and regulations relevant to the environmental resource topic and the Proposed Project.
- **Impacts and Mitigation Measures.** This section identifies thresholds of significance used to evaluate whether an impact is considered significant, based on standards identified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. In some cases, agency policies and regulations or professional judgment are used to further define CEQA standards of significance.

This section first presents a discussion of the standards of significance for which no impacts have been identified, if any. The section then evaluates and analyzes project impacts, states the level of significance prior to mitigation, and proposes mitigation measures for significant impacts that would reduce such

impacts, if feasible. A statement regarding the level of significance of each impact after mitigation precedes the mitigation measures for that impact.

Cumulative impacts are discussed in each environmental resource section following the description of the project-specific impacts. The cumulative impact analysis considers the effects of the Proposed Project together with other past, present, or reasonably foreseeable future projects proposed in the project vicinity and region. The cumulative impact analysis is based on the same setting, regulatory framework, and significance thresholds presented for each respective resource topic. Additional mitigation measures may be identified if the analysis determines that the Proposed Project's contribution to a significant cumulative impact would be cumulatively considerable and, therefore, significant. Section 4.1.2, Cumulative Impacts Overview, below describes the assumptions and methodology for assessing cumulative impacts.

#### 4.1.1.2 Significance Determinations

In accordance with CEQA, specifically Public Resources Code Section 21068, a “significant effect on the environment” means a substantial or potentially substantial adverse change in the environment. The significance thresholds used for each environmental resource topic are presented in each section of this chapter immediately before the discussion of impacts. For each impact described, one of the following significance determinations is made:

- **No Impact.** This determination is made if there is no potential that the Proposed Project could affect the resource at issue.
- **Less than Significant.** This determination applies if there is a potential for a limited impact on a resource, but the impact is not significant in accordance with the standard of significance.
- **Less than Significant with Mitigation.** This determination applies if there is the potential for a substantial adverse effect in accordance with the standard of significance, but mitigation is available to reduce the impact to a less-than-significant level.
- **Significant and Unavoidable.** This determination applies to impacts that are significant, and for which there appears to be no feasible mitigation available to substantially reduce the impact.

#### 4.1.2 Cumulative Impacts Overview

The section below presents the CEQA requirements pertaining to the cumulative impacts analysis and the cumulative projects that have been considered in the cumulative impacts analysis presented for each environmental resource topic, at the end of each section in this chapter.

##### 4.1.2.1 CEQA Guidelines Requirements

CEQA Guidelines Section 15130(a) requires that an environmental impact report (EIR) discuss cumulative impacts of a project “when the project’s incremental effect is cumulatively considerable.” As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. Pursuant to CEQA Guidelines Section 15065(a)(3), “cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects. Where a lead agency is examining a project with an incremental effect that is not “cumulatively considerable,” the lead agency need not consider the effect significant.

CEQA requires an evaluation of cumulative impacts when they are significant. When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. Furthermore, according to CEQA Guidelines Section 15130 (a)(1), there is no need to evaluate cumulative impacts to which the project does not contribute.

An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus not significant when, for example, a project funds its fair share of a mitigation measure designed to alleviate the cumulative impact. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide detail as great as that provided for the impacts that are attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified project contributes.

CEQA Section 21094(e)(1) states that if a lead agency determines that a cumulative effect has been adequately addressed in a prior environmental impact report, that cumulative effect is not required to be examined in a later EIR. The section further indicates that cumulative effects are adequately addressed if the cumulative effect has been mitigated or avoided as a result of the prior EIR and adopted findings or can be mitigated or avoided by site-specific revisions, imposition of conditions or other means in connection with the approval of the later project (CEQA Section 21094[e][4]).

### 4.1.2.2 Cumulative Projects and Scope of Analysis

The analysis of cumulative impacts may consider either 1) a list of past, present, and probable future projects producing cumulative impacts or 2) a summary of growth projections contained in an adopted plan that evaluates conditions contributing to cumulative impacts, such as those contained in a General Plan. Projects that are relevant to the cumulative analysis include projects that could:

- Contribute incremental environmental effects on the same resources as, and would have similar impacts to, those discussed in the EIR applicable to the Proposed Project.
- Be located within the defined geographic scope for the cumulative effect. The defined geographic scope is dependent on the environmental resource affected.
- Contribute impacts that coincide with the Proposed Project's impacts during either construction (short-term) or operation (long-term).

This EIR uses a list-based approach for the development of the cumulative projects. Based on the above factors, cumulative projects considered for the analysis include other capital improvement projects planned by the Santa Cruz Water Department (SCWD) that would be located in proximity to the project site or whose impacts would otherwise combine with the impacts of the Proposed Project. Santa Cruz County Planning Department staff were also contacted to determine if other proposed or pending projects are located in proximity to the project site; staff indicated that there are not any substantive proposed or pending development projects on the North Coast (DiSalvo 2020). Cumulative projects are discussed below and summarized in Table 4.1-1 on page 4.1-7.

## Santa Cruz Water Department Projects

The SCWD Capital Improvement Program (CIP) includes plans and funding for numerous capital improvement projects, including rehabilitation or replacement projects, upgrades and improvements projects, water supply augmentation components, and water main replacements (SCWD 2020a, 2020b).<sup>1</sup> SCWD is implementing the City Council-adopted recommendations of the Water Supply Advisory Committee for supplemental water supply, which are incorporated in the 2015 Urban Water Management Plan (SCWD 2016), to which some of these projects relate.

A list of CIP projects was reviewed to determine those projects that could potentially contribute incremental environmental effects that would be located within the defined geographic scope for cumulative effects, or otherwise contribute impacts that coincide with the Proposed Project's impacts during either construction (short-term) or operation (long-term). Table 4.1-1 reflects the comprehensive list of capital projects that were reviewed for this EIR and identifies the three projects that are the focus of the cumulative analysis based on that review. Projects that are not the focus of the cumulative analysis are those that are not located in proximity to the project site, are not within the same watershed as the Proposed Project (the Laguna Watershed), and/or their construction periods would not overlap with the construction period for the Proposed Project. These three projects are further described below.

### North Coast System Repair and Replacement Project (Phases 4 and 5)

The North Coast System Repair and Replacement Project consists of phased projects to repair or replace significant portions of the North Coast Pipeline, which connects the City's coastal stream sources—Liddell, Laguna, Reggiardo, and Majors—to the City's raw water system at the Coast Pump Station.<sup>2</sup> Prior phases replaced approximately 12,500 feet—nearly all of the pipeline located within the City limits, and focused on the segment of pipe that ran along the High Street corridor to Harvey West/Coast Pump Station. In addition, an 18,500-linear-foot portion of the North Coast pipeline segment along State Route 1, between Scaroni Road to the west of the entrance to Wilder Ranch State Park, was also previously replaced. Future phases, referred to as Phases 4 and 5, include replacements/repairs to the following pipeline reaches: Liddell Pipeline, Laguna Pipeline, Laguna-Liddell Pipeline, Majors Pipeline, and a segment of the North Coast Pipeline from west of the entrance to Wilder Ranch State Park through Moore Creek Preserve to the Westside of Santa Cruz. The Laguna Pipeline and the Laguna-Liddell Pipeline reaches would be within the Laguna Watershed and the Laguna Pipeline reach would partially occur within the project site for the Proposed Project. Construction is planned to occur between 2025 and 2027.

### Santa Cruz Water Rights Project

The SCWD is proposing changes to its existing water rights through the Santa Cruz Water Rights Project (SCWRP) to address key issues needed to improve the City's water system flexibility while enhancing stream flows for local anadromous fisheries, particularly for Central California Coast coho salmon, a federally and state-listed endangered species, and Central California Coast steelhead, a federally listed threatened species. An Initial Study and Notice of Preparation for an EIR were issued for the project on October 15, 2018 and new change petitions were filed with the State Water Resources Control Board in August 2020. The EIR is anticipated to be completed by mid-2021. The SCWRP includes:

- <sup>1</sup> Projects under this program are independent and separate from the Proposed Project and would undergo their own environmental review prior to their approval and implementation.
- <sup>2</sup> A condition assessment and basis of design was completed in 2005. A Program EIR was prepared in 2005 (SCWD 2005) and preferred alignments were selected as part of the EIR certification by City Council in October 2005.

## 1. Water rights modifications:

- a. Expanding the authorized places of use of the City's pre-1914 and post-1914 appropriative water rights to include the City's full service area, two local groundwater basins, and the service areas of neighboring water agencies, including Soquel Creek Water District, Scotts Valley Water District, San Lorenzo Valley Water District, and Central Water District.
- b. Explicitly authorizing direct diversion as a method of diversion under the City's Newell Creek License and Felton Permits, which is not explicitly authorized under the current license and permits.
- c. Adding the City's existing Beltz system as points of rediversion into and out of groundwater storage to the City's Tait Licenses and Felton Permits, and adding the Tait Diversion as a new point of diversion for the Felton Permits, which would provide the ability to divert water under the Felton Permits with or without activation of the Felton Diversion inflatable dam.
- d. Adding an Underground Storage Supplement to the City's Tait Licenses and Felton Permits to allow for the City's Beltz system aquifer storage and recovery component (see below).
- e. Granting an extension of time of 25 years to beneficially use water allowed under certain City water rights permits.
- f. Modifying City water rights to include minimum bypass flows as negotiated with state and federal resource agencies to protect fisheries (Agreed Flows).

## 2. Water supply augmentation components:

- a. City aquifer storage and recovery
- b. Beltz System aquifer storage and recovery
- c. Water transfers and exchanges and intertie improvements

## 3. Surface water diversion improvements:

- a. Felton Diversion fish passage improvements
- b. Tait Diversion and Coast Pump Station improvements

The SCWRP would commit the City to maintaining minimum bypass flows, including at the Facility, as indicated in 1(f) above. No construction or development within the Laguna Watershed is proposed as part of the SCWRP. No change is proposed to the volume of water that can be diverted at the Facility under the City's existing water rights; however, as indicated above, minimum bypass flows would be maintained and therefore diversion volumes would be significantly lower than under historical operational conditions.

### Habitat Conservation Plans

Since 2001, SCWD has been developing two Habitat Conservation Plans (HCPs)<sup>3</sup>, one pertaining to anadromous salmonids<sup>4</sup> with the National Marine Fisheries Service and one pertaining to other listed species<sup>5</sup> with the U.S. Fish

<sup>3</sup> A HCP is prepared under Section 10 of the Federal Endangered Species Act by nonfederal parties seeking to obtain a permit for incidental take of federally listed fish and wildlife species. A HCP can also form the basis for an application for incidental take of state-listed species under Section 2081 of the California Endangered Species Act. A HCP includes descriptions of likely impacts to the subject species and the steps an applicant will take to avoid, minimize, and mitigate such impacts.

<sup>4</sup> The anadromous salmonids covered by the ASHCP include Central California Coast coho salmon (coho salmon) (*Oncorhynchus kisutch*), a state- and federally listed endangered species, and the Central California Coastal steelhead (steelhead) (*Oncorhynchus mykiss*), a federally listed threatened species.

<sup>5</sup> Listed species covered by the other HCP include Ohlone tiger beetle (*Cicindela ohlone*), a federally listed endangered species; Mount Hermon June beetle (*Polyphylla barbata*), a federally listed endangered species; tidewater goby (*Eucyclogobius newberryi*),

and Wildlife Service (USFWS). The HCPs will provide for California Endangered Species Act and Federal Endangered Species Act compliance for SCWD's ongoing operations that may affect special-status species. For the Anadromous Salmonid HCP (ASHCP) being developed with the National Marine Fisheries Service, the preliminary draft chapters and permit applications were submitted to the agencies for review in late spring 2019 and the administrative draft was submitted for agency review in summer of 2020. Initiation of environmental review for the ASHCP and associated permit applications is expected to commence in fiscal year 2021 with the goal of completing the permit process by late 2022 or early 2023. For the multiple species operations and maintenance HCP being developed with the USFWS, a draft of the HCP has been submitted to the USFWS, and environmental review is expected to commence in fiscal year 2021.

Like the SCWRP, the ASHCP would also commit the City to maintaining minimum bypass flows for anadromous fisheries, including at the Facility. The conservation strategies of both HCPs are designed to avoid, minimize, and fully mitigate the effects of the City's "Covered Activities" on "Covered Species" and their habitat in support of the long-term viability of these populations within streams and habitats affected by the Covered Activities.<sup>6</sup> In particular, the biological goals and objectives of the ASHCP includes: (1) the minimum bypass flows noted above; (2) creating, restoring or enhancing aquatic habitat including removal of passage obstacles, placement of large wood structures, riparian conservation easements, spawning gravel augmentation, riparian restoration, and sediment control projects; (3) avoiding, minimizing and fully mitigating effects from City operations and maintenance activities by implementing ramping rates during flow changes at diversions to limit flow reductions, by reducing the introduction of sediment, by upgrading diversion facilities on Laguna (the Proposed Project), Reggiardo and Majors Creek (see Table 4.1-1) to provide sediment transport during high flows to avoid pulsing of sediment to downstream habitat, and by enhancing fish passage through the Felton and Tait Diversions (included in the SCWRP).

The only construction that the biological goals and objectives of the ASHCP anticipate in the Laguna Watershed is the Proposed Project and upgrading the Reggiardo Diversion. The ASHCP includes diversion improvements in the Laguna Watershed at the Facility and at the Reggiardo Diversion as a biological objective associated with operating facilities to enable unimpaired sediment transport dynamics and allow more timely, accurate, and precise adjustments of water diversion. Specifically, the draft ASHCP calls for modifying the Laguna Facility and the Reggiardo Diversion within 10 years of the signed Incidental Take Permit to provide improved sediment transport during high flows. The Proposed Project is intended to meet this biological objective as it relates to the Laguna Diversion.

Unlike the ASHCP, the operations and maintenance HCP being developed with the USFWS does not include construction projects that improve habitat conditions. The biological goals and objectives and conservation measures include restoring habitat temporarily disturbed by Covered Activities, contributing to protected and managed lands that support populations of Covered Species, pursuing conservation actions that will result in conservation benefits to Covered Species, and implementing general and species-specific minimization and best management practices.

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a federally listed endangered species; Pacific lamprey (*Lampetra tridentata*), a species not currently listed under the Endangered Species Act; California red-legged frog (*Rana draytonii*), a federally listed threatened species; western pond turtle (*Actinemys marmorata*), a federal species of concern; Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*), a federally listed endangered species; Robust spineflower (*Chorizanthe robusta* var. *robusta*), a federally listed endangered species; Santa Cruz tarplant (*Holocarpha macradenia*), a federally listed threatened species; and San Francisco popcornflower (*Plagiobothrys diffuses*), a state-listed endangered species.

<sup>6</sup> The Covered Activities include operation, maintenance and rehabilitation of the City's water supply and water system facilities, including surface water diversions; operation and maintenance of the City's municipal facilities; and management of City lands.

Given that the conservation strategies of the HCPs are being designed to avoid, minimize, and fully mitigate the effects of the City's activities on listed species and that the only construction projects identified in the Laguna Watershed in the HCPs is the Proposed Project and upgrading the Reggiardo Diversion, the cumulative analysis in the EIR related to these HCPs focuses on the Reggiardo Diversion upgrade.

The City has one other low-effect HCP and related Incidental Take Permit covering the Mount Hermon June beetle, Zayante band-winged grasshopper, and the Ben Lomond spineflower at the Graham Hill Water Treatment Plant (City of Santa Cruz 2013). This HCP has been implemented since 2013 and it includes establishment of a permanent 17-acre preserve in the Laguna Watershed, which serves as off-site mitigation for Mount Hermon June beetle (see Figure 3-1 in Chapter 3, Project Description). This preserve is in place and is being managed by the City under a Habitat Management and Monitoring Plan for the Laguna Sandhills Preserve (SCWD 2014). Ongoing management activities are intended to protect and preserve habitat at the preserve and would not contribute to cumulative impacts. Therefore, this preserve and its Habitat Management and Monitoring Plan are not further evaluated in the cumulative analysis.

**Table 4.1-1. City of Santa Cruz Water Program Capital Improvement Projects**

CIP No.	Project Name	Project Description	Estimated Construction Schedule
<b><i>Projects Considered in Cumulative Analysis</i></b>			
2.1	North Coast System Repair and Replacement Project (Phases 4 and 5)	The City diverts water from several north coast streams to the North Coast Pipeline. Phases 4 and 5 of the North Coast System Repair and Replacement Project consist of replacements/repairs to the following pipeline reaches: Liddell Pipeline, Laguna Pipeline, Laguna-Liddell Pipeline, Majors Pipeline, and a segment of the North Coast Pipeline from west of the entrance to Wilder Ranch State Park through Moore Creek Preserve to the Westside of Santa Cruz. The Laguna Pipeline and the Laguna-Liddell Pipeline reaches would be within the Laguna Watershed and the Laguna Pipeline reach would partially occur within the project site for the Proposed Project.	2025-2027
1.3 1.4 3.3 3.4 7.1	Santa Cruz Water Rights Project (includes Felton Diversion and Tait Diversion and Coast Pump Station upgrades, and aquifer storage and recovery in Mid-County and Santa Margarita Groundwater Basins)	The SCWD is proposing changes to its existing water rights through the SCWRP to address key issues needed to improve the City's water system flexibility while enhancing stream flows for local anadromous fisheries, particularly for Central California Coast coho salmon, a federally listed endangered species, and Central California Coast steelhead, a federally listed threatened species. This project also includes infrastructure upgrades at the Felton and Tait Diversions and Coast Pump Station, aquifer storage and recovery in Mid-County and Santa Margarita Groundwater Basins, and water transfers and exchanges with neighboring water agencies and associated intertie facilities.	2021-2030
7.2	Habitat Conservation Plans	Two HCPs under development: anadromous species (National Marine Fisheries Service) and operations and maintenance (U.S. Fish and Wildlife Service).	Not applicable

Table 4.1-1. City of Santa Cruz Water Program Capital Improvement Projects

CIP No.	Project Name	Project Description	Estimated Construction Schedule
<i>Projects Reviewed but not Focused on in Cumulative Analysis<sup>1</sup></i>			
1.2	North Coast System Majors Diversion Rehab	To improve the performance, increase structural integrity, and ease operation and maintenance requirements at the Majors Creek Diversion to regain full use of the asset.	2027-2030
1.5	Newell Creek Dam Inlet/Outlet Replacement Project	The Newell Creek Dam was constructed in the 1960s. A pipeline runs through the base of the dam to deliver water to the reservoir from Felton Diversion and from the reservoir to the Graham Hill Water Treatment Plant. The pipeline is reaching the end of its design life and will be replaced along with all related infrastructure. This project is being implemented with oversight by the Division of Safety of Dams and, having demonstrated compliance with existing seismic regulations, is strictly addressing rehabilitation and replacement issues. CEQA and permitting were completed in 2019 and 2020.	2020-2023
2.2	Newell Creek Pipeline Rehab/Replacement	Rehabilitate or replace the Newell Creek Pipeline between Felton Diversion, Loch Lomond Reservoir, and Graham Hill Water Treatment.	2022-2028
4.1	Graham Hill Water Treatment Plant Tube Settlers Replacement	Design and replacement of tube settlers and related appurtenances. As part of the project, the tube settlers for three basins will be replaced-in-kind and will also include the replacement of associated valves and piping, and making concrete crack repairs in the basins.	2019-2021
4.2	Graham Hill Water Treatment Plant Flocculator Rehab/Replacement	Design and repair or replacement of aging paddle wheel flocculators at the Graham Hill Water Treatment Plant. A condition assessment and alternatives analysis will be performed to determine the best path forward considering cost, schedule, and operations.	2020-2021
4.3	Graham Hill Water Treatment Plant Concrete Tanks Project	Infrastructure improvements to the Graham Hill Water Treatment Plant are necessary to meet regulatory requirements, improve operations and increase overall reliability. The design phase of this project is nearly complete for the replacement of the Filtered Water Tank, Wash Water Reclamation Tank (Reclaim Tank), and Sludge Storage Tank.	2020-2024
4.4	Graham Hill Water Treatment Plant Facility Improvement Plan	Process improvements to the Graham Hill Water Treatment Plant are necessary to meet regulatory requirements, improve operations and increase overall system reliability. This project currently includes condition assessments, alternatives analyses, preliminary designs and preparation of a Facilities Improvement Project report. Final design and construction services are future phases included in this project.	2023-2028



Table 4.1-1. City of Santa Cruz Water Program Capital Improvement Projects

CIP No.	Project Name	Project Description	Estimated Construction Schedule
4.5	River Bank Filtration Study	This project assesses the feasibility of locating new riverbank filtration wells along the San Lorenzo River near two different existing surface water diversions: Tait Street and Felton. If found feasible, locations and design parameters for installation of vertical or horizontal wells would be recommended. Construction would be scheduled and budgeted in future years.	2023-2028
6.1	University Tank No. 4 Rehab/Replacement	Perform engineering analysis and condition assessment of the aging University 4 tank and associated piping to ensure reliable service. Project will include condition assessment, design, acquisition of construction easements from the University of California, Santa Cruz, permitting, and construction.	2023-2025
CIP2	Main Replacements	Recurring program to replace distribution system water mains, identified and prioritized based on maintaining water system reliability, delivering adequate fire flows, improving circulation and water quality, and reducing maintenance costs.	To be determined
CIP3	Beltz 10 and 11 Rehab and Development	This project involves the rehabilitation of Beltz 10 (an existing groundwater production well) and the conversion of an existing monitoring well to a production well (Beltz 11). This project will shift pumping to different geologic layers of the basin.	To be determined

Source: SCWD 2020a, 2020b.

Notes: CEQA = California Environmental Quality Act; CIP = Capital Improvement Program; HCP = Habitat Conservation Plan; SCWD = Santa Cruz Water Department; SCWRP = Santa Cruz Water Rights Project.

<sup>1</sup> These projects are not located in proximity to the project site, are not within the Laguna Watershed, and/or the construction periods would not overlap with the construction period for the Proposed Project; therefore, they were not considered in the cumulative analysis.

### 4.1.3 References

City of Santa Cruz. 2013. *Low-Effect Habitat Conservation Plan for the Issuance of an Incidental Take Permit Under Section 10(a)(1)(B) of the Endangered Species Act for the Federally Endangered Mount Hermon June Beetle Zayante Band Winged Grasshopper and Ben Lomond Spineflower for the City of Santa Cruz Graham Hill Water Treatment Plant Operations, Maintenance, and Construction Activities*. Prepared by Ebbin, Moser + Skaggs LLP and Richard A. Arnold, Ph.D. June 2013.

DiSalvo, J. 2020. Senior Planner, Development Review Section, County of Santa Cruz Planning Department. Email to Ann Sansevero of Dudek, June 9, 2020.

SCWD (Santa Cruz Water Department). 2005. *Program Environmental Impact Report for the North Coast System Repair and Replacement Project*. Final. Prepared by Entrix Environmental Consultants for the City of Santa Cruz Water Department. October 2005.

SCWD. 2014. *Habitat Management and Monitoring Plan for the Laguna Sandhills Preserve*. Prepared by Jodi McGraw Consulting. December 30, 2014.

SCWD. 2016. *City of Santa Cruz 2015 Urban Water Management Plan*. August 2016.

SCWD. 2020a. *Water Department CIP*. Fiscal Years 2020-2024.

SCWD. 2020b. "Capital Improvement Program." Accessed August 19, 2020 at <https://www.cityofsantacruz.com/government/city-departments/water/engineering/santa-cruz-water-program>.