CITY OF SANTA CRUZ
City Hall
809 Center Street
Santa Cruz, California 95060

WATER COMMISSION

Regular Meeting

December 6, 2021

7:00 P.M. GENERAL BUSINESS AND MATTERS OF PUBLIC INTEREST, COUNCIL CHAMBERS

COVID-19 ANNOUNCEMENT: This meeting will be held via teleconference ONLY.

In order to minimize exposure to COVID-19 and to comply with the social distancing suggestion, the Council Chambers will not be open to the public. The meeting may be viewed remotely, using the following sources:

- Online:https://ecm.cityofsantacruz.com/OnBaseAgendaOnline/Meetings/Search?dropid=4&mtids=124
- Zoom Live (no time delay): https://us06web.zoom.us/j/89436826172
- Facebook: https://www.facebook.com/SantaCruzWaterDepartment/?epa=SEARCH_BOX

PUBLIC COMMENT:
If you wish to comment during on items 1-6 during the meeting, please see information below:

- Call any of the numbers below. If one number is busy, try the next one. Keep trying until connected.
  +1 346 248 7799
  +1 253 215 8782
  +1 301 715 8592
  +1 312 626 6799
  +1 646 558 8656
- Enter the meeting ID number: 894 3682 6172
- When prompted for a Participant ID, press #.
- Press *9 on your phone to "raise your hand" when the Chair calls for public comment.
  - It will be your turn to speak when the Chair unmutes you. You will hear an announcement that you have been unmuted. The timer will then be set to three minutes.
  - You may hang up once you have commented on your item of interest.
  - If you wish to speak on another item, two things may occur:
    1) If the number of callers waiting exceeds capacity, you will be disconnected and you will need to call back closer to when the item you wish to comment on will be heard, or
    2) You will be placed back in the queue and you should press *9 to "raise your hand" when you wish to comment on a new item.

NOTE: If you wish to view or listen to the meeting and don't wish to comment on an item, you can do so at any time via the Facebook link or over the phone or online via Zoom.

The City of Santa Cruz does not discriminate against persons with disabilities. Out of consideration for people with chemical sensitivities, please attend the meeting fragrance free. Upon request, the agenda can be provided in a format to accommodate special needs. Additionally, if you wish to attend this public meeting and will require assistance such as an interpreter for American Sign Language, Spanish, or other special equipment, please call Water Administration at 831-420-5200 at least five days in advance so that arrangements can be made. The Cal-Relay system number: 1-800-735-2922.

APPEALS: Any person who believes that a final action of this advisory body has been taken in error may appeal that decision to the City Council. Appeals must be in writing, setting forth the nature of the action and the basis upon which the action is considered to be in error, and addressed to the City Council in care of the City Clerk.

Other - Appeals must be received by the City Clerk within ten (10) calendar days following the date of the action from which such appeal is being taken. An appeal must be accompanied by a fifty dollar ($50) filing fee.

Call to Order

Roll Call

Statements of Disqualification - Section 607 of the City Charter states that...All members present at any meeting must vote unless disqualified, in which case the disqualification shall be publicly declared and a record thereof made. The City of Santa Cruz has adopted a Conflict of Interest Code, and Section 8 of that Code states that no person shall make or participate in a governmental decision which he or she knows or has reason to know will have a reasonably foreseeable material financial effect distinguishable from its effect on the public generally.

Oral Communications

Announcements

Consent Agenda (Pages 1.1 – 3.1) Items on the consent agenda are considered to be routine in nature and will be acted upon in one motion. Specific items may be removed by members of the advisory body or public for separate consideration and discussion. Routine items that will be found on the consent agenda are City Council Items Affecting Water, Water Commission Minutes, Information Items, Documents for Future Meetings, and Items initiated by members for Future Agendas. If one of these categories is not listed on the Consent Agenda then those items are not available for action.

1. City Council Actions Affecting the Water Department (Pages 1.1 – 1.3)

   Accept the City Council actions affecting the Water Department.

2. Water Commission Minutes from November 1, 2021 (Pages 2.1 – 2.5)

   Approve the November 1, 2021 Water Commission Minutes.

3. 2022 Water Commission Meeting Schedule (Pages 3.1)

   Approve the Water Commission meeting schedule for 2022.

Items Removed from the Consent Agenda

General Business (Pages 4.1 – 6.115) Any document related to an agenda item for the General Business of this meeting distributed to the Water Commission less than 72 hours before this meeting is available for inspection at the Water Administration Office, 212 Locust Street, Suite A, Santa Cruz, California. These documents will also be available for review at the Water Commission meeting with the display copy at the rear of the Council Chambers.

4. Vulnerability Assessment and Adaptation Planning (Page 4.1)

Receive an update on the Vulnerability Assessment and Adaptation Planning being developed by Hydrosystems Research Group at the University of Massachusetts, Amherst.

5. FY 2021 4th Quarter and FY 2022 1st Quarter Unaudited Financial Reports (Pages 5.1 - 5.17)

Accept the FY 2021 4th Quarter and FY 2022 1st Quarter Unaudited Financial Reports.

6. Santa Cruz Water Rights Project Final Environmental Impact Report and Project Approval Recommendation (Pages 6.1 – 6.115)

Support the staff recommendation that City Council adopt a resolution certifying the Final Environmental Impact Report for the Santa Cruz Water Rights Project and adopt a resolution approving the Santa Cruz Water Rights Project, adoption a Mitigation, Monitoring, and Reporting Program, and adopting CEQA Findings and a Statement of Overriding Considerations.

Subcommittee/Advisory Body Oral Reports

7. Santa Cruz Mid-County Groundwater Agency

8. Santa Margarita Groundwater Agency

Director's Oral Report

Information Items

Adjournment

This Page Intentionally Left Blank

WATER COMMISSION
INFORMATION REPORT

DATE: 12/1/2021

AGENDA OF: 12/06/2021

TO: Water Commission

FROM: Heidi Luckenbach, Interim Water Director

SUBJECT: City Council Actions Affecting the Water Department

RECOMMENDATION: That the Water Commission accept the City Council actions affecting the Water Department.

BACKGROUND/DISCUSSION:

October 12, 2021

2nd Quarter FY22 Water Department CIP Transfer – Budget Adjustment (WT)

Resolution No. NS-29,880 was adopted amending the FY 2022 budget and transferring budget appropriations within the Water Department Capital Investment Program (CIP) to update various project budgets to current cost forecasts.

No agenda items to report.

October 26, 2021

FY 2022 Budget Appropriation for Water Conservation Rebates - Budget Adjustment (WT)

Resolution No. NS-29,882 was adopted appropriating $100,000 from Water System Development Charges, Fund 715, and amending the Water Department's FY 2022 budget to fund additional water conservation rebates.

Water Supply Augmentation Strategy, Aquifer Storage and Recovery Demonstration Study in Beltz Well 12, Pueblo Water Resources Professional Service Contract (WT)

Motion carried authorizing the City Manager to execute an agreement in the amount of $262,744 with Pueblo Water Resources of Ventura, CA for Aquifer Storage and Recovery Demonstration Study in Beltz Well 12 in a form to be approved by the City Attorney and authorizing the Water Director to execute amendments within the approved project budget.

Meter Replacement Project - Resolution to Apply for a U.S. Department of the Interior Bureau of Reclamation Grant (WT)

Resolution No. NS-29,883 was adopted authorizing the submittal, acceptance, and appropriation of a U.S. Department of the Interior Bureau of Reclamation grant under the WaterSMART Grants: Water and Energy Efficiency Grants for FY 2022 Funding Opportunity and authorize the City Manager to accept and appropriate any changes to the final grant award.

November 9, 2021

Water Supply Augmentation Strategy, Aquifer Storage and Recovery Demonstration Study in Beltz Well 8, Pueblo Water Resources Professional Service Contract (WT)

Motion carried authorizing the City Manager to execute an agreement in the amount of $202,580 with Pueblo Water Resources of Ventura, CA for Aquifer Storage and Recovery Demonstration Study in Beltz Well 8 in a form to be approved by the City Attorney and authorizing the Water Director to execute amendments within the approved project budget.

Public Hearing on and Adoption of the 2020 Urban Water Management Plan and Water Shortage Contingency Plan (WT)

Motion carried to:

- **Adopt Resolution No. NS-29,890** adopting the 2020 Urban Water Management Plan and authorizing the Water Director to file a copy of the plan with the California Department of Water Resources; and,

- **Adopt Resolution No. NS-29,891** adopting the Water Shortage Contingency Plan and authorizing the Water Director to file a copy of the Water Shortage Contingency Plan, as a component of the 2020 Urban Water Management Plan, with the California Department of Water Resources.

November 23, 2021

Conduct a Public Hearing Required to Adopt a Resolution Establishing an Updated Water Rate Structure, Adjusting Fixed-Cost Ready-to-Serve Charges, Water Usage Based Consumption Charges, Infrastructure Reinvestment Fees, Elevation Surcharges, and the Rate Stabilization Fee for Implementation over Five Consecutive Years Beginning on July 1, 2022, and Establishing Revised Drought Cost Recovery Fees to be Implemented in Response to a Council-Declared Water Shortage Emergency (WT)

Motion carried to:

- **Adopt Resolution No. NS-29,897** establishing an updated water rate structure, and a five-year schedule of water rates, fees and charges including adjusting fixed-cost ready-to-serve charges, water usage-based consumption charges, infrastructure reinvestment fees, elevation surcharges, and the rate stabilization fee for implementation on July 1, 2022, July 1, 2023, July 1, 2024, July 1, 2025, and July 1, 2026, establishing revised drought cost recovery fees to be

implemented in response to a Council-declared water shortage emergency, and rescinding Resolution No. NS-29,134 upon the effective date of this Resolution.

- Accept the Cost-of-Service Report prepared by Raftelis Financial Consultants, Inc. which provides the basis for the proposed water rates and structure for the five-year period July 1, 2022 through June 30, 2027.

PROPOSED MOTION: Motion to accept the City Council actions affecting the Water Department.

ATTACHMENTS: None.

This Page Intentionally Left Blank

Water Commission
7:00 p.m. – November 1, 2021
Council Chambers/Zoom Teleconference
809 Center Street, Santa Cruz

Summary of a Water Commission Meeting

Call to Order: 7:01 PM

Roll Call

Present: J. Burks (via Zoom), T. Burns (Via Zoom), D. Engfer (via Zoom), S. Ryan (Chair) (via Zoom), A. Páramo (via Zoom), D. Schwarm (via Zoom), W. Wadlow (Vice-Chair) (via Zoom)

Absent: None

Staff: H. Luckenbach, Interim Water Director (via Zoom); D. Baum, Water Chief Financial Officer (via Zoom); N. Christen, Water Conservation Representative (via Zoom); C. Coburn, Deputy Director/Operations Manager (via Zoom); K. Crossley, Interim Deputy Director/Engineering Manager (via Zoom); D. DeBrito, Associate Planner II (via Zoom); L. Kay, Engineering Associate (via Zoom); D. Valby, Associate Professional Engineer (via Zoom); K. Fitzgerald, Administrative Assistant III (via Zoom)

Others: Two members of the public (via Zoom)

Presentation: None.

Statements of Disqualification: None.

Oral Communications: None.

Announcements:

Consent Agenda

1. City Council Items Affecting the Water Department

2. Water Commission Minutes From October 4, 2021

Ms. Luckenbach commented that the Urban Water Management Plan has been modified since it was presented at the October 4th Water Commission meeting.

Commissioner Engfer pulled Item 3 for further discussion.

Commissioner Wadlow moved the Consent Agenda as amended. Commissioner Burns seconded.

VOICE VOTE: MOTION CARRIED
AYES: All
NOES: None
ABSTAIN: None

Items Pulled from the Consent Agenda

3. U.S. Department of the Interior Bureau of Reclamation Funds, Water and Energy Efficiency Grants – Letter of Support

Why is the Vice-Chair signing the letter?

- Staff are following the format of past letters of support that were received last year which includes a letter of support from the Santa Cruz County position that Chair Ryan holds now and felt that it was best to have letters from two separate entities.

Since the last attempt at this grant in 2020 was unsuccessful, what is staff doing differently for the grant application this year?

- Staff reached out to the U.S. Department of the Interior Bureau of Reclamation for more clarification on the criteria for the grant. The first criterion is expected water savings that will be realized through the Meter Replacement Program in terms of water volumes as well as the number of meters replaced. Staff also examined other agencies that were successful in receiving the full $2 million grant and most had approximately 100,000 or more meters whereas the City's distribution system contains around 25,000 meters. Finally, because the City has five different metering systems, its story is complex and difficult to communicate in an application. Staff decided to apply for the lower dollar amount, $500,000, putting the City in a more competitive position.

When does the letter need to be finalized?

- The application is due on October 6th, so any editorial suggestions or comments from Commissioners need to be received by tomorrow morning, October 5th.

Commissioner Engfer moved the staff recommendation on item 3.

Commissioner Burns made a friendly amendment to the recommendation that the Water Commission approve that staff send a letter of support on behalf of the Water Commission.

Commissioner Engfer accepted the friendly amendment. Commissioner Wadlow seconded.

VOICE VOTE: MOTION CARRIED
AYES: All
NOES: None
ABSTAIN: None

General Business

4. Water Supply Augmentation Strategy (WSAS) Quarterly Report

Ms. Luckenbach discussed the WSAS Quarterly report.

When can the City resume the water transfers with the District?

- Water transfers would likely not resume until after the new calendar year and are contingent on how much rainfall is received through the wet season and the status of storage in the reservoir. Additionally, we are hoping to advance the Aquifer Storage and Recovery (ASR) demonstration study, so decisions will need to be made on where to put excess surface water, either transfers or ASR.

What level does the reservoir need to be at in order for water transfers to commence?

- There are five criteria that need to be met per the agreement with Soquel Creek Water District but with respect to the reservoir level, it would need to either be spilling or expected to spill by April 1st.

Why are arsenic levels in the Beltz Well area expected to decrease over a longer storage period?

- Staff will be providing an update that will cover this topic at a future Water Commission meeting.

Could the infrastructure for recycled water from the wastewater treatment plant be upgraded to provide usable tertiary treated water to major downtown developments?

- During Phase 1 of the Recycled Water Study, a market analysis was completed and identified large consumers such as cemeteries, the Boardwalk, and golf courses. The difficulty with providing treated recycled water to these consumers is that they are located throughout the system. The current pipeline project (6" pipeline located at the WWTF) will implement, with city council approval, a small subset of those end users. This is not precluding future end uses from being realized.

Mr. Coburn discussed the Source Water Monitoring.

Would the Graham Hill Water Treatment Plant be able to treat higher levels of the constituents that are currently present?

- It depends on what the constituent is but the data collected now will be used to inform new treatment processes under the Facilities Improvement Project (FIP) at the treatment plant.

Will there be some sort of assessment to establish a baseline for future sampling in the event of another fire in the watershed?

- Right now the focus is on completing the initial analysis and once that is done, we can begin to look at further monitoring.

Have San Lorenzo Valley Water District's (SLVWD) protests on the Santa Cruz Water Rights project been resolved?

- Ms. Menard responded that staff are working with SLVWD and are optimistic that their protests can be resolved within the next week or two.

No public comments were received.

5. Commission Update on Pipeline Planning and Design Projects, Main Replacement Model, and Annual Water Loss Assessment

Ms. Luckenbach introduced Mr. Crossley for the presentation and discussion of the Update on Pipeline Planning and Design Projects, Main Replacement Model, and Annual Water Loss Assessment.

Mr. Crossley introduced Mr. Allan Scott (HDR Engineering, Inc.) for the discussion of the main replacement model.

How do the physical characteristics of the pipe and or its surroundings inform the predictive ability of the main replacement model?

- Mr. Scott responded that the curve is based on the historical data and included physical characteristics of pipes that experienced breaks such as diameter, material composition, age, and environment. From this analysis, it was determined that the characteristics that have a significant impact on breakage frequency are pipes that are smaller in diameter.

Are pipes that are at higher risk for breakage also more difficult to replace?

- Not necessarily. Several factors go into main replacement planning such as cost and whether the replacement can be done in house, including the pipe's location and accessibility.

Why was asbestos used in pipes?

- Asbestos was a commonly used material before its harmful effects were known. In pipes, it was used as a strengthening agent to reinforce concrete, similar to rebar or carbon fiber that is used today.

Mr. Neal Christen discussed the 2020 Annual Water Loss Assessment.

Mr. Danny DeBrito discussed the North Coast Planning Study.

Is the City exempt from local county permitting requirements?

- This is mostly true, however, the North Coast Pipeline project will need to undergo a unique permitting process because it is located in the coastal zone and will require coastal development permits that conjoin with other county permits.

Mr. Doug Valby discussed the Newell Creek Pipeline Project - Felton to Graham Hill.

Are there any environmental issues that could arise with abandoning the existing pipeline in its current location?

- Potentially, and we are planning to mitigate those issues by filling the decommissioned pipeline with a low-weight cellular grout so that it will not collapse as it degrades over time. Luckily the pipeline is made of cylindrical concrete and steel so there is no risk of future lead or asbestos contamination.

How will the ongoing maintenance of Pipeline Road be handled if the Department's right of way easement is no longer in effect?

- The agreement with the California State Parks Department states that the Water Department will no longer maintain it if the easement is abandoned.

Mr. Lewis Kay discussed the Newell Creek Pipeline Project - Brackney.

Will the new pipeline alignment cross over the Ben Lomond fault, and if so, what do we know about the fault's activity, and what mitigations may be necessary?

- Yes, the segment crosses the Ben Lomond fault that has been classified as not Holocene-active. Additionally, the selected method for drilling the new pipeline, horizontal directional drilling (HDD), has provided an opportunity for resiliency in the fault zone.

Why is the FEMA grant only funding 75% of the project?

- The upper limit of the federal cost share for this grant is 75%.

One public comment was received.

Subcommittee/Advisory Body Oral Reports

6. Santa Cruz Mid-County Groundwater Agency (MGA)
Ms. Menard reported that the MGA has not met since September 9th and the next meeting will be held on December 16th.

7. Santa Margarita Groundwater Agency (SMGWA)
Commissioner Engfer reported that the SMGWA met on October 28th and conducted a high-level review of the comments that have been submitted on the draft Groundwater Sustainability Plan (GSP). SMGWA staff are creating a final draft of the GSP that will incorporate the comments and will be submitted to the State for review. The next two meetings for the year will be held on November 17th and tentatively on December 8th.

Director's Oral Report: Ms. Luckenbach reported that the City Council will be asked to appoint a new City Manager for the City of Santa Cruz at their November 9th meeting with a start date of January 3rd, 2022.

Ms. Menard reported that she will return to the position of Water Director effective on January 5th, 2022 and that the public hearing on the water rates proposal is scheduled for November 23rd.

How many public comments has the City received on the water rate proposal?

- The City has received about a dozen public comments to date.

One public comment was received.

Adjournment Meeting adjourned at 9:15 PM.

This Page Intentionally Left Blank

WATER COMMISSION
INFORMATION REPORT

DATE: 12/1/2021

AGENDA OF: 12/6/2021

TO: Water Commission

FROM: Heidi Luckenbach, Interim Water Director

SUBJECT: 2022 Water Commission Meeting Schedule

RECOMMENDATION: That the Water Commission approve the Water Commission meeting schedule for 2022.

BACKGROUND/DISCUSSION: The Water Commission meets on the first Monday of every month which results in meetings that fall on federal holidays observed by the City. These meetings are subject to postponement or cancellation. Due to the ongoing COVID-19 pandemic, all meetings will be held remotely until further notice.

January 2022
(01-03-22) *Cancelled*

February 2022
(02-07-22)

March 2022
(03-07-22)

April 2022
(04-04-22)

May 2022
(05-02-22)

June 2022
(06-06-22)

July 2022
(07-04-22) (*4th of July Holiday*)

August 2022
(08-01-22)

September 2022
(09-05-20) (*Labor Day Holiday)*

October 2022
(10-03-22)

November 2022
(11-07-22)

December 2022
(12-05-22)

FISCAL IMPACT: None

PROPOSED MOTION: Motion to approve the Water Commission meeting schedule for 2022.

ATTACHMENTS: None.

This Page Intentionally Left Blank

WATER COMMISSION
INFORMATION REPORT

DATE: 12/01/2021

AGENDA OF: 12/06/2021

TO: Water Commission

FROM: Heidi Luckenbach, Interim Water Director

SUBJECT: Vulnerability Assessment and Adaptation Planning

RECOMMENDATION: Receive an update on the Vulnerability Assessment and Adaptation Planning being developed by Hydrosystems Research Group at the University of Massachusetts, Amherst.

BACKGROUND and DISCUSSION: At the August 2, 2021 Water Commission meeting, Dr. Casey Brown, on behalf of Hydrosystems Research Group at the University of Massachusetts, Amherst, updated the Water Commission on the status of the Vulnerability Assessment and Adaptation Planning, covering decision scaling as an approach to evaluating vulnerabilities. Future meetings, including the December 6, 2021 meeting, will cover the following topics.

December 2021
- Status update on hydrologic and systems models including calibration and ongoing work to completion
- Status of weather generator including work of the review panel
- Preliminary vulnerabilities of the current system

February/March 2022 (tentative)
- Analyze adaptation options

May/June 2022 (tentative)
- Establish trigger points

FISCAL IMPACT: None.

PROPOSED MOTION: This item is for information and discussion only. No motion is required.

ATTACHMENT(S): None.

This Page Intentionally Left Blank

WATER COMMISSION
INFORMATION REPORT

DATE: 12/3/2021

AGENDA OF: 12/06/2021

TO: Water Commission

FROM: David Baum, Chief Financial Officer
Malissa Kaping, Management Analyst

SUBJECT: FY 2021 4th Quarter and FY 2022 1st Quarter Unaudited Financial Reports

---

RECOMMENDATION: That the Water Commission accept the FY 2021 4th Quarter and FY 2022 1st Quarter Unaudited Financial Reports.

The FY 2021 4th Quarter and FY 22 1st Quarter unaudited financial reports are combined as one action for the Water Commission agenda on December 6. The combination of these two reports is necessitated by delays in the fiscal year-end audit for June 30. While still unaudited, we believe the two reports are materially correct, pending the completion of the audit.

This Page Intentionally Left Blank

WATER COMMISSION
INFORMATION REPORT

DATE: 12/3/2021

AGENDA OF: 12/06/2021

TO: Water Commission

FROM: David Baum, Chief Financial Officer
Malissa Kaping, Management Analyst

SUBJECT: FY 2021 4th Quarter Unaudited Financial Report

RECOMMENDATION: That the Water Commission accept the FY 2021 4th Quarter Unaudited Financial Report.

BACKGROUND: On June 6, 2016, the Water Commission approved the Water Department's Long Range Financial Plan (LRFP) which created a framework to ensure financial stability and maintain the credit rating needed to debt finance major capital investments planned for the utility. An updated LRFP was approved by the Water Commission on August 23, 2021. The updated LRFP includes financial targets for debt service coverage ratio (1.5x), a combined 180 days cash on hand, $3.1 million in an Emergency Reserve, and a $10 million Rate Stabilization reserve.

The data in this Quarterly Financial Report provides a snapshot in time and represents the time period of July 1, 2020 through June 30, 2021. The City operates on a fiscal year basis, which closes on June 30th.

In 2019, an Ad Hoc Subcommittee of the Water Commission and Water Department staff worked together to update the quarterly financial report. The purpose of the update was to provide a clearer picture of financial trends and results to the Water Commission. By conveying better information, we are able to show successes, identify problem areas and provide information to demonstrate that appropriate responses are being implemented. With each successive financial report, Department staff have updated the report to reflect Commissioners' comments and further refine the information presented.

DISCUSSION: Page 1 of the attached Financial Report focuses on the Operating budget and Page 2 reflects the Capital budget. Noteworthy items are discussed on the following pages.

Operating Revenues

Water sales continue to reflect the impact of the COVID-19 pandemic and drought and are 4% below budgeted amounts. As expected, residential consumption is higher while commercial and UCSC consumption is lower. Budgeted revenues are based upon the fifth year of rate increases. The FY 2021 6% increase did not take effect until July 1, 2021. Anticipating the decline, on February 9, 2021, City Council approved a 10% reduction in budgeted water sales to account for the deferred rate increase and the ongoing commercial sector decline.

In FY 2021, staff did not receive the anticipated $371,595 in a Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant submitted to FEMA for the Brackney Landslide Pipeline Risk Reduction Project to address the 2017 winter storm damage. An additional $245,000 reimbursement claim was submitted in May 2021 and Funds are now expected to arrive in FY 2022.

In FY 2021, Water Department staff submitted six Drinking Water State Revolving Fund disbursement claims to the State Water Resources Control Board (SWRCB) for the Newell Creek Inlet/Outlet Pipeline replacement project totaling $40.6 million. $27.6 million was received and are reflected in the 4th Quarter Financial Report. Another $13 million was due from the SWRCB as of June 30. A $50 million line of credit was obtained on June 15, 2021 and will supplement cash flow while SCWD awaits reimbursement from SRF. $21 million was drawn from the line of credit at the end of June.

The expected reimbursements, line of credit and grants described above will help improve cash flow and cash reserves.

Operating Expenses

Similar to the drop in revenues, operating expenses are 20% below the Adopted Budget. Personnel costs were down due to the unbudgeted 10% unpaid furlough and the eight currently vacant positions. The furlough ended on May 16 based on improving financial conditions in the City, including $15 million federal economic relief to the City. The vacancy rate is approximately 7% of budgeted positions; the budget assumes no employee vacancies.

Significant operating expenses trending lower than the budget are as follows:

- Maintenance – Water Systems were under budget by $1.2 million. $1 million was budgeted for the Anadromous Salmonid Habitat Conservation Plan (ASHCP) CEQA/NEPA work and $500,000 for the Operations and Maintenance HCP (OMHCP) CEQA/NEPA work. It turned out that not much was needed for CEQA/NEPA on the OMHCP and the work was done in-house. The ASHCP CEQA/NEPA has not yet commenced. The FY 2022 budget for Other Professional and Technical Services decreased in FY 2022 by $1.1 million.

- Other Professional and Technical Services were under budget by $1,090,000. These costs have been reduced for legal, engineering and other technical services. The reduction of outside services is attributed to the COVID-19-related reduction in revenues, which

reduces funds available for third-party services. The FY 2022 budget for Other Professional and Technical Services decreased in FY 2022 by $1.1 million.

- Electricity was under budget by $316,000. The reduction in electricity use corresponds to the installation of solar panels at the Graham Hill Water Treatment Plant (GHWTP) and the Bay Street tanks during the past several years. The FY 2022 budget for electricity has been reduced by $100,000 compared to FY 2021 budget. In July 2021, PG&E requested a five percent/year increase through 2026. This rate increase is being considered by the California Public Utilities Commission (PUC).

- Governmental Fees were under budget by $115,000. These fees are related to licensing for the Newell Creek Dam and the water system operator license, and are paid to the SWRCB. Fees charged to this account have been reduced, which will result in a future reduction to this account.

These fees are paid from the Services, Supplies and Other line items.

CIP Highlights

Total FY 2021 CIP spending was nearly $46.7 million with the bulk of the spending, $16.5 million, occurring in the fourth quarter. The largest fourth quarter spend occurred in 5 projects:

- Newell Creek Dam Inlet/Outlet Replacement spent $10,500,000 to advance the tunnel excavation by approximately 450-ft., prepare for drilling of cast-in-steel-shell (CISS) piles for the air vent supports, and placed and grouted the upper, middle, and lower debris wall foundations in the reservoir (including drilling, grouting, and testing the hold down and tie back anchors);
- GHWTP Concrete Tanks Replacement spent $1,650,000 to mobilize the construction contractor and review their project work plans and material submittals;
- $1,600,000 was expensed to the GHWTP Facilities Improvement Project which included Water Program Administration fees from HDR Engineering for all of FY 2021 and legal fees and staff time to finish the evaluation of Design-Build (DB) proposals and to negotiate a final agreement with the highest ranked DB team;
- Newell Creek Pipeline (Felton-GHWTP) spent $730,000 to advance design to the 30% level (including land surveying and geotechnical investigation) along with a parallel effort involving environmental studies to support the upcoming draft EIR; and
- GHWTP Flocculators spent $640,000 to complete installation in the final sedimentation basin and perform startup and performance testing.

Two Management Reserve transactions were approved during 4th Quarter FY 2021 as shown below. Funding of the Laguna Creek Diversion Retrofit project occurred to facilitate early execution of the construction contract and issuance of a purchase order; such funding was returned to Management Reserve in 1st Quarter FY 2022. The GHWTP Entrance Improvements project was increased $256,000 to incorporate design revisions after final review of drawings and

meetings with neighbors that resulted in bids higher than original estimates and a slight increase in implementation costs.

Reporting Period	Project	Description of Change	Change Amount	Management Reserve Balance
				47,713,256
4th Qtr FY21	GHWTP Entrance Improvements	Construction bids higher than estimated	256,000	47,457,256
4th Qtr FY21	Laguna Creek Diversion Retrofit	Budget needed in FY21 - Will be returned in FY22	1,397,000	46,060,256

Few changes were made to Total Project Budget at Completion between the 3rd Quarter FY 2021 and 4th Quarter FY 2021 financial summary reports. As shown below, the changes add $100K to the total project costs.

	3rd Qtr Total Project Budget at Completion	4th Qtr Total Project Budget at Completion	Change	Explanation
University Tank No. 5 Rehab/Replacement	3,960,000	4,310,000	350,000	Project substantially complete and within 9% of budget
Water Quality Lab Upgrades	540,000	520,000	(20,000)	Project substantially complete and budget reduced accordingly
Brackney Landslide Area Pipeline Risk Reduction	5,870,000	5,640,000	(230,000)	HMGP grant increased
			100,000	

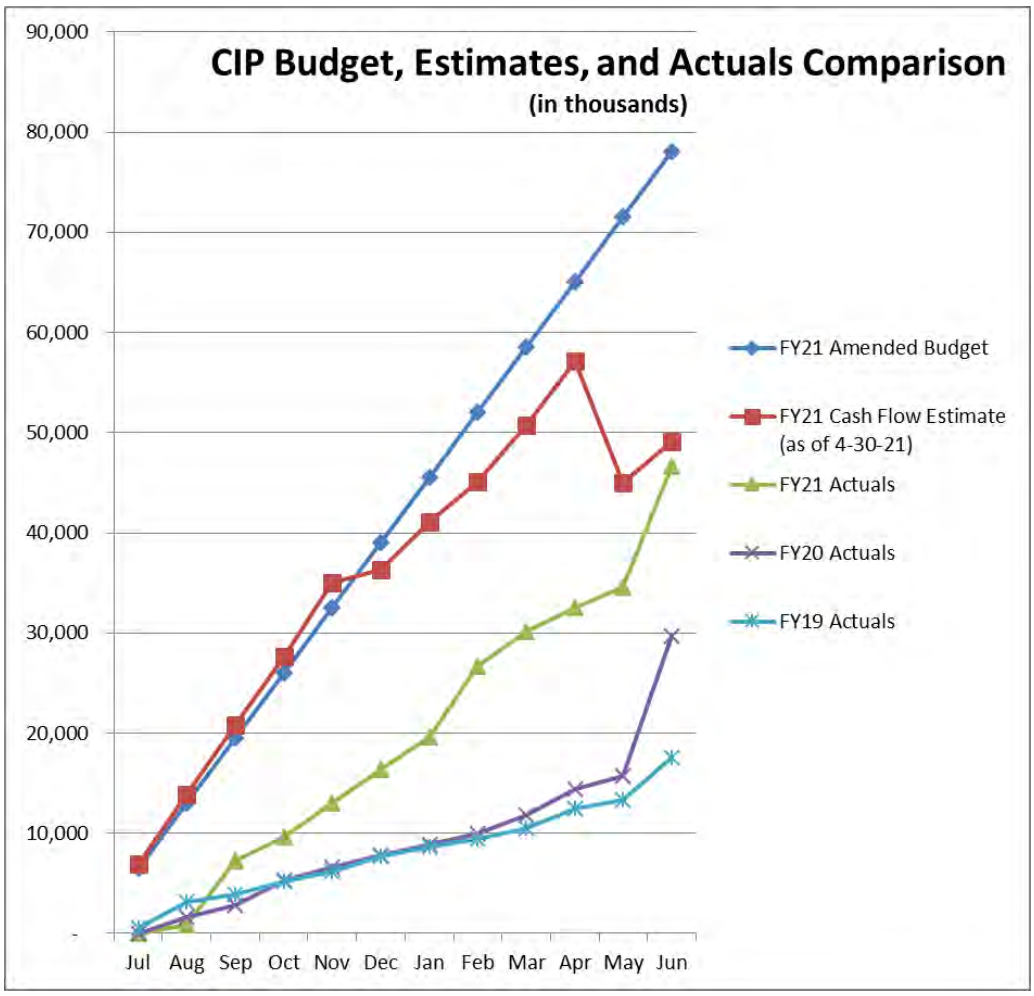
Project totals will be reviewed during the FY 2023 budget process and will be updated upon FY2023 budget approval or when Council approves new appropriations. The Total Project Budget at Completion shown in these financial summary reports includes ALL costs for active projects and consists of:

- Prior year actuals starting in FY 2019;
- The current amended budget (Council adopted budget and approved new appropriations plus prior year carry-forwards); and
- Projections through FY 2037.

In comparison, the Financial Pro-Forma published in the recently updated LRFP (mentioned at the beginning of this report) consists of future projections only for a ten-year period (FY22-31) and does not include prior year actuals. The chart below documents how the Total Budget at Completion shown is this report is consistent with the Pro-Forma:

A	B	C	(B+C) = D	E	F	(A+D+E+F)=G	H	(G-A-H)
Prior Year Actuals (FY19 - 20)	FY21 Adopted Budget	FY21 Carry-fwd & BAs	FY21 Amended Budget	FY22 - 31 Pro-Forma	FY32 - 37 Projected	Total Budget at Completion	FY21 Actuals	Remaining to Complete
50,162,424	62,280,000	15,710,000	77,990,000	511,964,000	68,178,576	708,295,000	46,665,349	611,467,227

While the Total Project Budget at Completion shown in these financial summary reports will be updated only when projects are closed and upon Council approval of new appropriations and the annual budget, cash flow estimates of actual spending will continue to be monitored and updated monthly and will be reported to the Water Commission in the following chart. Previous reports included a version of this chart that compared only the cash flow estimates and actuals. The chart below contains the added metric of the FY 2021 amended budget that consists of the adopted budget, carry-over from FY 2020, and other Council-approved new appropriations.



A review of the gap between budget, estimates, and actuals was performed to determine any lessons-learned to be applied to the FY 2023 budget development process. Overall the variance between the amended budget and actuals for FY 2021 was nearly $31.4 million and that funding will carry-forward into FY 2022 and will ultimately reduce the amount of new budget appropriation needed in the FY 2023 budget. The variance review highlighted a few items:

- The budget development starts in January of each year and is based on December 31st estimates with the final budget adopted by Council in June. The budget estimates developed in January cover a year and a half of anticipated future work (i.e. 6-months

during budget development plus the fiscal year itself). These estimates can vary significantly once bids are received and the schedule (i.e., cash flow) is received from the Contractor.

- Budgets typically spread out costs evenly through the construction period but the Contractor's schedule may result in a different spending curve. Spending curves will vary significantly from project to project (or Contractor to Contractor) and spreading initial estimates evenly to create the budget is a conservative approach that will contribute to the variance between budget and actuals within a single fiscal year but the total project cost remains the same over a multi-year period.
- Cash flow estimates for projects currently under construction are developed (in part) with the Contractor and, as was seen with the Newell Creek Dam Inlet/Outlet Replacement, those estimates can reflect the Contractor's overly optimistic spend forecasts, based on early completion dates for activities. As a lesson-learned, cash flow estimates will take into account the schedule float allowing for later completion (and later cost actualization).
- Projects are delayed to resolve issues prior to construction or better coordinate work with other projects.

The following chart is a detailed summary of the variance between the original budget and actual spent.

Project	FY21 Variance from Amended Budget	Variance Comments
Newell Creek Dam Inlet/Outlet Replacement	10,030,000	(1) FY21 planned spend for this project was based on Contractor's cumulative planned spend rather than FY only planned spend. (2) The Project's construction contingency was spread across full construction duration as planned spend. No contingency use was realized in FY21. (3) Contractor provided overly optimistic spend forecasts. Program Controls has since implemented direct upload of Contractor Cost Loaded schedule for increased accuracy in program review and reporting.
Management Reserve	5,120,000	Management Reserve was available for use in FY21, but all was not needed during this FY (program risks were not realized). The planned spend is spread evenly across Program years, but actual use may occur at any time. Mgt Reserve value is assessed annually for alignment with current risk levels.
Meter Replacement Project	4,240,000	Delayed start to extended negotiation of installation and supply contracts. NTP in November 2021. Thus, the unspent budget from FY21 is deferred into FY22 and FY23.
Program Administration	3,510,000	Cumulative savings on annual task orders. Deferral of scope associated with project schedule adjustments.
Graham Hill WTP Concrete Tanks	1,680,000	Delayed 3 months due to extended bid period for design document clarification. Shifted majority of FY21 construction dollars into FY22. Construction start up and mobilization periods were extended, resulting in minimal Contractor invoicing in FY21.
ASR Planning	1,020,000	Existing multi-year contracts not completed in FY21.
Mains Replacements- Distribution Section	970,000	9 month delay due to coordination with other projects.
Laguna Creek Diversion Retrofit Project	870,000	Contract bid amount was spread evenly over construction period, but Contractor did not invoice as such. Similar impact for spend on environmental monitoring, and CM services.
Coast Pump Station 20-inch Raw Water Pipeline Replacement	810,000	Construction cost under budget (contingency not fully expended).
Water Supply Augmentation	560,000	Existing multi-year contracts not completed in FY21.
ASR Mid County Existing Infrastructure	560,000	Pilot work planned for FY21 was delayed due to water availability.
Recycled Water Feasibility Study	340,000	Project delayed (deferred to FY22) in order to broaden scope for incorporation of full supply implementation assessment.
Newell Creek Pipeline Rehab/Replacement	320,000	Existing multi-year contracts not completed in FY21.
Graham Hill WTP Tube Settlers Replacement	320,000	Construction cost under budget (contingency not fully expended).
Newell Creek Pipeline Felton/Graham Hill	290,000	Existing multi-year contracts not completed in FY21.
Security Camera & Building Access Upgrades	270,000	Contractor could not complete work in FY21
River Bank Filtration Study	220,000	Existing multi-year contracts not completed in FY21.
Graham Hill WTP Flocculator Rehab/Replacement	200,000	Construction cost under budget (contingency not fully expended).
Other	70,000	Various project changes
	31,400,000	

The next quarterly finance report for 1st Quarter FY 2022 will include an overview of work in process to secure grants and low-interest funding.

FISCAL IMPACT: None.

PROPOSED MOTION: Motion to accept the FY 2021 4th Quarter Financial Report.

ATTACHMENTS:
1. Santa Cruz Water Department Financial Report

SANTA CRUZ WATER DEPARTMENT FINANCIAL REPORT

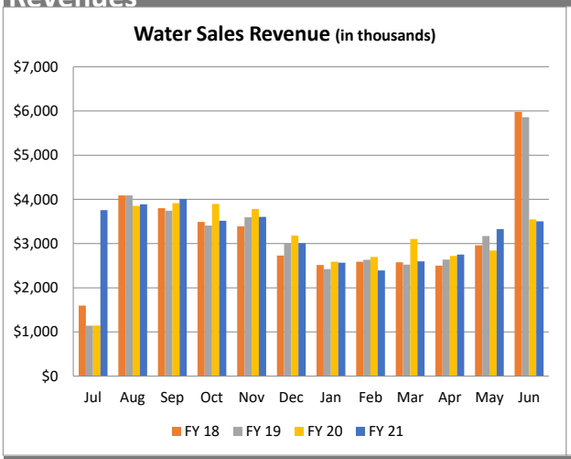
Fiscal Year 2020/21 through June 30, 2021

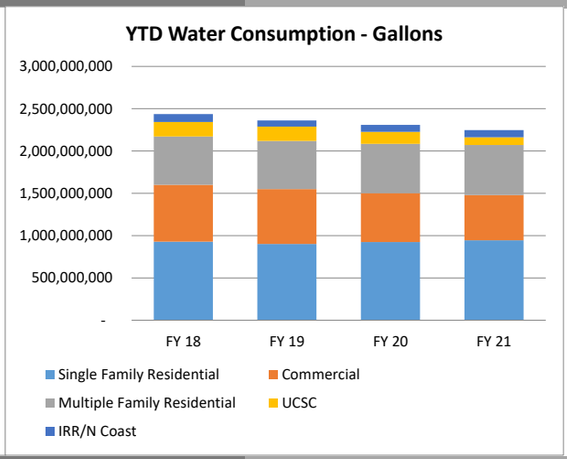
(Unaudited)

Financial Summary

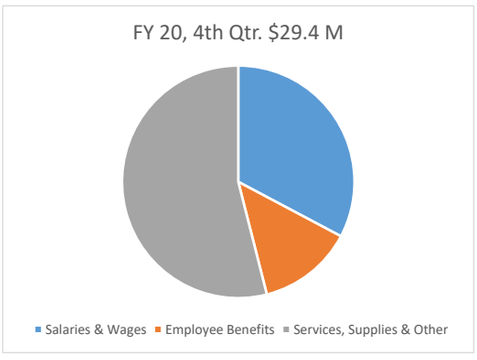
	FY 2021 Adjusted Budget	Actual	Actual vs. Budget Variance $ +/(-)	Actual vs. Budget Variance % +/(-)
Operating Revenues				
Water Sales	39,878,296	38,776,218	(1,102,078)	(3%)
Other Charges for Services	1,364,861	1,442,103	77,242	6%
Other Revenues	337,733	334,597	(3,137)	(1%)
Grants	371,595	-	(371,595)	(100%)
Investment Earnings	227,511	26,046	(201,465)	(89%)
Total Operating Revenues	42,179,996	40,578,963	(1,601,034)	(4%)
Operating Expenses				
Salaries & Wages	11,490,323	9,692,788	(1,797,535)	(16%)
Employee Benefits	4,530,286	4,056,769	(473,517)	(10%)
Services and Supplies	18,336,395	13,074,952	(5,261,443)	(29%)
Capital Outlay	573,335	383,593	(189,743)	(33%)
Debt Service - Principal & Interest	3,458,545	3,544,000	85,455	2%
Total Operating Expenses	38,388,884	30,752,101	(7,636,783)	(20%)
Net Operating Revenue (Loss)	3,791,112	9,826,861	6,035,749	159%
Debt Service Coverage (Target >= 1.50x)	2.10x	3.77x		

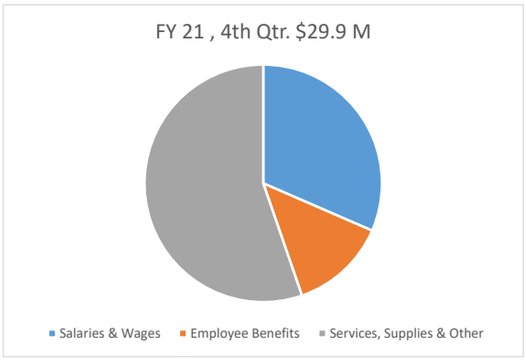
Revenues





Expenses





Cash

Fund Balances	YTD Balance	Year End Target Balance
711 - Enterprise Operations	16,381,380	8,612,960
713 - Rate Stabilization	11,044,296	10,000,000
715 - System Development Charges	7,726,259	N/A
716 - 90 Day Operating Reserve	6,887,122	8,612,960
717 - Emergency Reserve	3,328,320	3,000,000
718 - Mount Hermon June Beetle Endowment	145,041	144,000
719 - Equipment Replacement	717,344	700,000
Total		
Days' Cash (Includes only Funds 711 & 716)	243	180
Days' Cash Target	180	180

CIP Summary: Fiscal Year 2021 Year End Project Titles	Total Project Budget at Completion [1] *(escalated dollars)*	Prior Year Actuals	FY21 Actuals thru 6/30/21	Remaining to Complete	Status as of 6/30/21
WATER SUPPLY RESILIENCY & CLIMATE ADAPTATION PROJECTS					
Water Supply Augmentation Strategy					
Beltz Wellfield Aquifer Storage and Recovery					
ASR Planning	3,950,000	2,623,131	363,260	963,609	Planning
ASR Mid County Existing Infrastructure	2,360,000	-	43,219	2,316,781	Planning
ASR Mid County New Wells	22,410,000	-	-	22,410,000	Not Initiated
Santa Margarita Aquifer Storage and Recovery and In Lieu Water Transfers and Exchanges					
ASR Santa Margarita Groundwater	21,750,000	-	-	21,750,000	Not Initiated
ASR New Pipelines	42,320,000	-	-	42,320,000	Not Initiated
In Lieu Transfers and Exchanges	-	-	-	-	Not Initiated
Studies, Recycled Water, Climate Change, Aquifer Storage and Recovery					
Water Supply Augmentation	1,340,000	383,615	315,350	641,035	Planning
Recycled Water Feasibility Study	1,010,000	636,469	131,352	242,179	Planning
Subtotal Water Supply Augmentation Strategy	**95,140,000**	**3,643,215**	**853,181**	**90,643,604**	
Subtotal Water Supply Resiliency and Climate Adaptation Projects	**95,140,000**	**3,643,215**	**853,181**	**90,643,604**	
INFRASTRUCTURE RESILIENCY AND CLIMATE ADAPTATION					
Raw Water Storage Projects					
NCD I/O Replacement Project	109,570,000	18,331,907	29,971,848	61,266,246	Construction
Aerators at Loch Lomond	640,000	93,336	347,126	199,538	Construction
Subtotal Raw Water Storage Projects	**110,210,000**	**18,425,243**	**30,318,974**	**61,465,783**	
Raw Water Diversion and Groundwater System Projects					
Laguna Creek Diversion Retrofit	3,810,000	677,750	480,771	2,651,479	Construction
North Coast System Majors Diversion Retrofit	5,330,000	163,187	-	5,166,813	Not Initiated
Tait Diversion Retrofit	6,630,000	205,004	92,058	6,332,938	Planning
Coast Pump Station Rehab/Replacement	10,370,000	-	-	10,370,000	Not Initiated
Beltz 10 and 11 Rehab & Development	360,000	186,922	892	172,186	Planning
Felton Diversion Pump Station Improvements	4,270,000	167,685	33,570	4,068,745	Planning
Beltz WTP Filter Rehabilitation	450,000	-	69,525	380,475	Construction
Subtotal Raw Water Diversion and Groundwater System Projects	**31,220,000**	**1,400,548**	**676,816**	**29,142,636**	
Raw Water Transmission					
Coast Pump Station 20-inch RW Pipeline Replacement	7,140,000	2,658,858	4,220,231	260,911	Post-Construction
Newell Creek Pipeline Rehab/Replacement	1,680,000	812,525	350,292	517,182	Design
Newell Creek Pipeline Felton/GHWTP	30,650,000	-	1,065,789	29,584,211	Design
Newell Creek Pipeline Felton/Loch Lomond	40,730,000	-	-	40,730,000	Not Initiated
Brackney Landslide Area Pipeline Risk Reduction	5,640,000	66,511	511,180	5,062,308	Design
North Coast Pipeline Repair/Replacement - Planning	640,000	195,119	404,405	40,475	Planning
North Coast Pipeline Repair/Replacement - Ph 4	20,140,000	-	-	20,140,000	Not Initiated
North Coast Pipeline Repair/Replacement - Ph 5	20,870,000	-	-	20,870,000	Not Initiated
Subtotal Raw Water Transmission	**127,490,000**	**3,733,014**	**6,551,897**	**117,205,089**	
Surface Water Treatment					
GHWTP Tube Settler Replacement	1,630,000	1,309,865	149,157	170,978	Post Construction
GHWTP Flocculator Rehab/Replacement	1,980,000	278,611	1,504,428	196,961	Post Construction
GHWTP Concrete Tanks Replacement	46,210,000	5,161,044	2,251,329	38,797,627	Construction
GHWTP Facilities Improvement Project	146,170,000	4,245,433	2,267,860	139,656,707	Design
River Bank Filtration Study	7,390,000	705,682	258,053	6,426,265	Planning
Subtotal Surface Water Treatment	**203,380,000**	**11,700,635**	**6,430,827**	**185,248,537**	
Distribution System Storage, Water Main and Pressure Regulation, and Metering Projects					
University Tank No. 4 Rehab/Replacement	6,320,000	114,728	84,797	6,120,475	Planning
University Tank No. 5 Rehab/Replacement	4,310,000	4,061,397	166,707	81,896	Post Construction
Pressure Regulating Stations [2]	190,000	171,697	1,995	16,308	To close
Meter Replacement Project	13,710,000	913,729	743,128	12,053,143	Design
Engineering and Distribution Main Replacement Projects [3]	35,050,000	5,770,690	108,230	29,171,080	Ongoing
Distribution System Water Quality Improvements	90,000	17,538	6,721	65,741	Planning
Facility & Infrastructure Improvements	7,890,000	-	-	7,890,000	Ongoing
Subtotal Distribution Storage, Wmain Pressure Reg, and Metering	**67,560,000**	**11,049,778**	**1,111,578**	**55,398,643**	
Subtotal Infrastructure Resiliency and Climate Adaptation	**539,860,000**	**46,309,218**	**45,090,093**	**448,460,689**	
OTHER RISK MANAGEMENT AND RISK REDUCTION PROJECTS					
Site Safety and Security					
Security Camera & Building Access Upgrades	550,000	209,991	71,442	268,568	Construction
Water Quality Lab Upgrades	520,000	-	466,283	53,717	Post Construction
GHWTP Gate Entrance Upgrades	465,000	-	184,351	280,649	Construction
Subtotal Site Safety and Security	**1,535,000**	**209,991**	**722,075**	**602,934**	
Staff Augmentation					
Water Program Administration [4]	23,850,000	-	-	23,850,000	Ongoing
Subtotal Staff Augmentation	**23,850,000**	**-**	**-**	**23,850,000**	
Contingency					
Management Reserve [5]	47,710,000	-	-	47,710,000	Ongoing
Subtotal Contingency	**47,710,000**	**-**	**-**	**47,710,000**	
Storage for Emergency Facility and System Repair Tools and Equipment					
Bay Street Reservoir Storage Building	150,000	-	-	150,000	Design
Union/Locust Admin Building Back Up Power Generator	50,000	-	-	50,000	Design
Subtotal Storage for Emergency and System Repair	**200,000**	**-**	**-**	**200,000**	
Subtotal Other Risk Management and Risk Reduction Projects	**73,295,000**	**209,991**	**722,075**	**72,362,934**	
GRAND TOTAL	**708,295,000**	**50,162,424**	**46,665,349**	**611,467,227**	

[1] Total Project Budget at Completion is from the FY22 budget request and rounded to the nearest 10,000.

[2] Not included in FY22 budget request because project is maintenance work and will be closed.

[3] Prior Year Actuals for Main Replacements start in FY19.

[4] Staff augmentation budget appropriations and actual expenses are transferred to specific projects during year-end process. Total budget will decrease in FY23 budget.

[5] Management Reserve budget appropriations are transferred to specific projects upon approval. Total budget will decrease in FY23 budget.

WATER COMMISSION
INFORMATION REPORT

DATE: 12/3/2021

AGENDA OF: 12/06/2021

TO: Water Commission

FROM: David Baum, Chief Financial Officer
Malissa Kaping, Management Analyst

SUBJECT: FY 2022 1st Quarter Unaudited Financial Report

RECOMMENDATION: That the Water Commission accept the FY 2022 1st Quarter Unaudited Financial Report.

BACKGROUND: On June 6, 2016, the Water Commission approved the Water Department's Long-Range Financial Plan (LRFP) which created a framework to ensure financial stability and maintain the credit rating needed to debt finance major capital investments planned for the utility. An updated LRFP was approved by the Water Commission on August 23, 2021. The updated LRFP includes financial targets for debt service coverage ratio (1.5x), a combined 180 days cash on hand, $3.1 million in an Emergency Reserve, and a $10 million Rate Stabilization Reserve.

The data in the Quarterly Financial Report provides a snapshot in time and represents the time period of July 1, 2021 through September 30, 2021. The City operates on a fiscal year basis, which closes on June 30th.

In 2019, an Ad Hoc Subcommittee of the Water Commission and Water Department staff worked together to update the quarterly financial report. The purpose of the update was to provide a clearer picture of financial trends and results to the Water Commission. By conveying better information, we are able to show successes, identify problem areas and provide information to demonstrate that appropriate responses are being implemented. With each successive financial report, Department staff have updated the report to reflect Commissioners' comments and further refine the information presented.

DISCUSSION: The attached financial report presents the Department's unaudited fiscal outlook through the first quarter of FY 2022 and is a snapshot of the transactions posted during the time period of July 1, 2021 through September 30, 2021. Page 1 of the attached Financial

Report is focused on the Operating budget and Page 2 reflects the Capital budget. Noteworthy items are discussed on the following pages.

Operating Revenues

Water sales continue to reflect the impact of the COVID-19 pandemic and drought and are 20% below budgeted amounts but just 7% lower than the same quarter last year. Residential consumption is lower while commercial and UCSC consumption is slightly higher, due to re-opening of commercial business in June.

In FY 2022, staff has received $147,894 from a Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant application submitted to FEMA for the Brackney Landslide Pipeline Risk Reduction Project to address the 2017 winter storm damage. A $245,000 reimbursement claim was submitted in May 2021. Additional funds are expected to arrive in FY 2022.

In FY 2021 and the first quarter of FY 2022, Water Department staff submitted nine Drinking Water State Revolving Fund disbursement claims to the State Water Resources Control Board (SWRCB) for the Newell Creek Inlet/Outlet Pipeline replacement project totaling $50.6 million. Through 9/30/21, $32.7 million was received and $17.8 million is owed to SCWD.

A $50 million line of credit was obtained on June 15, 2021 and will supplement cash flow while SCWD awaits reimbursement from SRF. $21 million was drawn from the line of credit through 9/30/21.

On July 28, 2021, staff submitted a Letter of Interest (LOI) to the United States Environmental Protection Agency (EPA) to solicit a Water Infrastructure Finance and Innovation Act (WIFIA) Loan. If approved, the Loan would provide approximately $164 million for the Graham Hill Water Treatment Plant improvements, Newell Creek Pipeline replacement, University Tank 4 replacement, and Aquifer Storage and Recovery projects. This loan program has produced loans for other water agencies with more favorable terms than are available in traditional capital markets. The next step is an application, which is expected to be approved in Fall 2022.

The expected reimbursements, line of credit and grants described above will help improve cash flow and cash reserves contemplated by the LRFP.

Operating Expenses

Similar to the drop in revenues, operating expenses are trending 28% below the Adopted Budget. Personnel costs are down 20% due primarily to the ten vacant positions during the first quarter. The vacancy rate is approximately 9% of budgeted positions; the budget assumes no vacancies.

Significant operating expenses trending lower than the budget are as follows:

- City-charged internal services are under budget by $1.24 million. Such services represent 14 items in SCWD's budget, which include legal, insurance, real estate and information technology costs. These costs will be allocated to SCWD later in the fiscal year but have not yet been recorded by the City Finance Department. If these costs were properly

allocated, the variance in Service, Supplies and Other category would be reduced by 53%. The unrecorded City-charges would also account for the decrease in first quarter operating expenses compared to the same quarter last year (see pie charts on the attachment).

- Legal, training, printing/binding and postage are under budget by $144,000. The reduction of outside services is attributed to the COVID-19-related reduction in revenues, which reduces funds available for third-party services.

- Water, sewer and refuse fees are under budget by $89,000. These fees are incurred primarily by the water treatment plant and the pipeline distribution system. The sewer fee has not yet been recorded by the City and is approximately $140,000 every three months.

- Governmental Fees are under budget by $30,000. These fees are related to licensing for the Newell Creek Dam and the water system operator license and paid to the SWRCB in the 4th quarter of FY 22. Fees charged to this account have been reduced, which will result in future reductions to this account.

Other significant cost items, such as electricity, chemicals and system maintenance, are trending in-line with the Adopted Budget.
These fees are paid from the Services, Supplies and Other line item.

CIP Highlights

Nearly $4.5M was spent on capital projects during the first quarter of FY2022 with Newell Creek Dam Inlet/Outlet Replacement project continuing to be the bulk of the spending. Significant spending also occurred for three other projects: the Laguna Creek Diversion Retrofit project and the GHWTP Tanks Replacement project both started active construction and the Meter Replacement project started ordering materials and preparing for a January 2022 start.

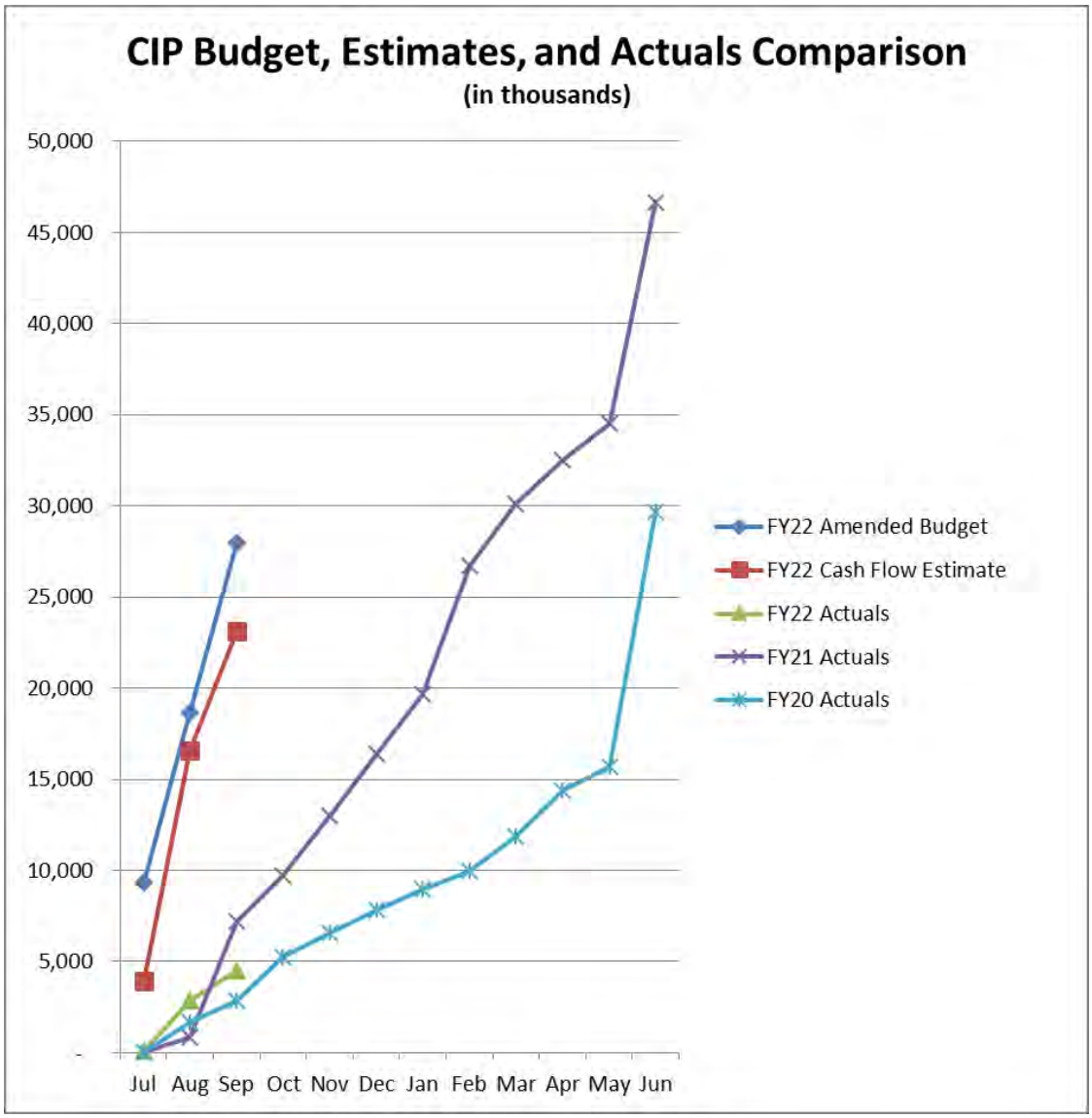
One Management Reserve Budget Adjustment (BA) was processed to return the early funding for the Laguna Creek Diversion Retrofit project that was budgeted in FY 2022 but was needed in FY 2021 to facilitate early contract execution.

Reporting Period	Project	Description of Change	Change Amount	Management Reserve Balance
				46,060,256
1st Qtr FY22	Laguna Creek Diversion Retrofit	Return of FY22 funds to Mgmt Rsv	(1,397,000)	47,457,256

Two projects were removed from the report and two projects were added during the FY 2022 budget process which reduced the Total Project Budget at Completion by $170,000 as shown below.

	FY21 4th Qtr Total Project Budget at Completion	FY22 1st Qtr Total Project Budget at Completion	Change	Explanation
Pressure Regulating Stations	190,000	-	(190,000)	Project is maintenance work and was closed
Water Quality Lab Upgrades	520,000	-	(520,000)	Project is complete and will be closed
GHWTP SCADA Radio System Replacement	-	150,000	150,000	New projects added in 4th Qtr to include in FY22 budget and will now appear in financial reports
CMMS Software Replacement - Water Share	-	390,000	390,000	
			(170,000)	

As was stated in the previous quarter's financial report, the Total Project Budget at Completion will be updated when projects are closed and upon Council approval of new appropriations (annual budget and budget adjustments). Cash flow estimates and actual spending will continue to be monitored and updated monthly and are shown in the following chart.



Analysis continues in regards to more closely aligning the budget, cash flow estimates, and actuals. The difference between actuals and the budget results in a carry-forward amount from FY 2022 to FY 2023. This carry-forward amount will be estimated in January during the FY 2023 budget development process and the carry-forward amount will result in fewer new budget appropriations needed in FY 2023. Basically, project costs are not changing but rather deferred to a future fiscal year than originally budgeted.

The Department continues to seek grant and low-interest funding for the capital program and is pleased to be recently selected by the U.S. EPA to apply for up to $163.7 Million in low-interest funding through the Water Infrastructure Finance and Innovation Act (WIFIA). These funds will support four projects: Graham Hill Water Treatment Plant (GHWTP) Facility Improvements Project (FIP), Newell Creek Pipeline Replacement (Felton-Graham Hill) Project (NCP), University Tank 4 Project (U4 Tanks), and Aquifer Storage and Recovery (ASR) Project. Development of the WIFIA application will kick off in December and will likely consist of development of a master WIFIA agreement with each project having a separate timeline to complete the required design, financial, and environmental documentation.

A parallel effort is underway to submit a Notice of Interest (NOI) to FEMA's Hazard Mitigation Grant Program (HMGP) for $27 Million in grant funding for the NCP. In March, selected projects will be invited to submit an application with the final selection occurring by fall 2022. If selected, the NCP will be removed from the WIFIA master agreement because both programs require a non-federal match.

Two Department of Water Resources (DWR) grants are also under consideration: a Sustainable Groundwater Management Act (SGMA) grant for a project in the Santa Cruz Mid-County basin and an Urban and Multibenefit Drought Relief (Drought) grant to construct an intertie with Scotts Valley Water District (SVWD). The SGMA grant is a joint effort by members of the Santa Cruz Mid County Groundwater Sustainability Agency and will likely include elements of ASR and the Pure Water Soquel projects. The grant will likely provide up to $7.6 Million in funding and the application is due in February with an award announced soon after in April 2022. The application for the intertie with SVWD is due in December and SVWD is the lead agency.

FISCAL IMPACT: None.

PROPOSED MOTION: Motion to accept the FY 2022 1st Quarter Financial Report.

ATTACHMENTS:
1. Santa Cruz Water Department Financial Report

SANTA CRUZ WATER DEPARTMENT FINANCIAL REPORT

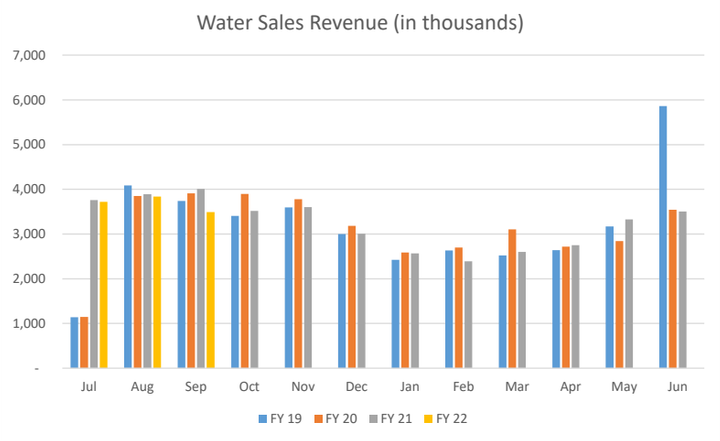
Fiscal Year 2021-22 through September 30, 2021

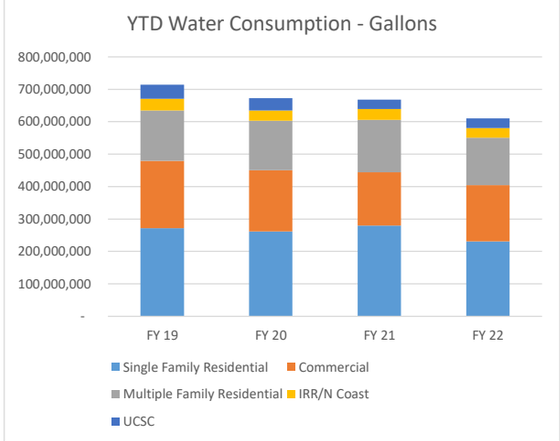
(Unaudited)

Financial Summary

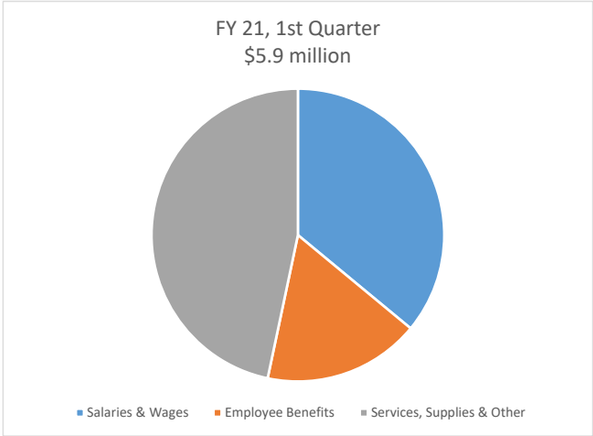
	FY 2022 Adjusted Budget	YTD Budget	Actual	Actual vs. YTD Budget Variance $ +/(-)	Actual vs. YTD Budget Variance % +/(-)
Operating Revenues					
Water Sales	42,270,994	10,567,749	8,445,829	(2,121,919)	(20%)
Other Charges for Services	1,323,299	330,825	67,306	(263,519)	(80%)
Other Revenues	362,235	90,559	43,252	(47,306)	(52%)
Grants	975,260	243,815	147,894	(95,921)	(39%)
Investment Earnings	-	-	35	35	-
Total Operating Revenues	44,931,788	11,232,947	8,704,317	(2,528,630)	(23%)
Operating Expenses					
Salaries & Wages	11,713,913	2,928,478	2,328,785	(599,693)	(20%)
Employee Benefits	4,765,330	1,191,333	970,286	(221,047)	(19%)
Services, Supplies & Other	15,874,541	3,968,635	1,608,826	(2,359,809)	(59%)
Capital Outlay	732,898	183,225	46,064	(137,160)	(75%)
Debt Service - Principal & Interest	3,829,040	957,260	1,681,761	724,501	76%
Total Operating Expenses	36,915,722	9,228,931	6,635,722	(2,593,208)	(28%)
Net Operating Revenue (Loss)	8,016,066	2,004,017	2,068,594	64,578	3%
Debt Service Coverage (Target >= 1.50x)	3.09x	3.09x	2.23x		

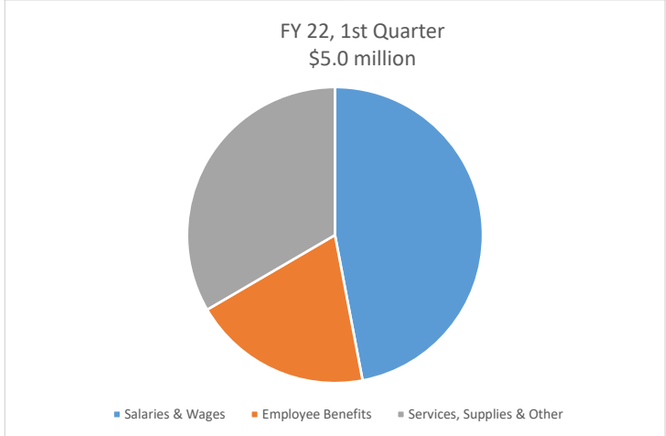
Revenues





Expenses





Cash

Fund Balances	YTD Balance	Year End Target Balance
711 - Enterprise Operations	13,729,352	8,158,360
713 - Rate Stabilization	11,973,658	10,000,000
715 - System Development Charges	5,143,591	N/A
716 - 90 Day Operating Reserve	6,892,003	8,158,360
717 - Emergency Reserve	2,483,046	3,000,000
718 - Mount Hermon June Beetle Endowment	145,041	144,000
719 - Equipment Replacement	647,855	700,000
Days' Cash (Includes only Funds 711 & 716)	227	180
Days' Cash Target	180	180

CIP Summary: Fiscal Year 2022 1st Qtr Project Titles	Total Project Budget at Completion [1] *(escalated dollars)*	Prior Year Actuals	FY22 Actuals thru 9/30/21	Remaining to Complete	Status as of 9/30/21
WATER SUPPLY RESILIENCY & CLIMATE ADAPTATION PROJECTS					
Water Supply Augmentation Strategy					
Beltz Wellfield Aquifer Storage and Recovery					
ASR Planning	3,950,000	2,986,391	120,524	843,084	Planning
ASR Mid County Existing Infrastructure	2,360,000	43,219	-	2,316,781	Planning
ASR Mid County New Wells	22,410,000	-	-	22,410,000	Not Initiated
Santa Margarita Aquifer Storage and Recovery and In Lieu Water Transfers and Exchanges					
ASR Santa Margarita Groundwater	21,750,000	-	-	21,750,000	Not Initiated
ASR New Pipelines	42,320,000	-	-	42,320,000	Not Initiated
In Lieu Transfers and Exchanges	-	-	-	-	Not Initiated
Studies, Recycled Water, Climate Change, Aquifer Storage and Recovery					
Water Supply Augmentation	1,340,000	698,965	109,793	531,242	Planning
Recycled Water Feasibility Study	1,010,000	767,821	15,323	226,857	Planning
Subtotal Water Supply Augmentation Strategy	**95,140,000**	**4,496,396**	**245,640**	**90,397,964**	
Subtotal Water Supply Resiliency and Climate Adaptation Projects	**95,140,000**	**4,496,396**	**245,640**	**90,397,964**	
INFRASTRUCTURE RESILIENCY AND CLIMATE ADAPTATION					
Raw Water Storage Projects					
NCD I/O Replacement Project	109,570,000	48,303,755	2,488,865	58,777,381	Construction
Aerators at Loch Lomond	640,000	440,462	-	199,538	Construction
Subtotal Raw Water Storage Projects	**110,210,000**	**48,744,217**	**2,488,865**	**58,976,918**	
Raw Water Diversion and Groundwater System Projects					
Laguna Creek Diversion Retrofit	3,810,000	1,158,521	652,989	1,998,490	Construction
North Coast System Majors Diversion Retrofit	5,330,000	163,187	-	5,166,813	Not Initiated
Tait Diversion Retrofit	6,630,000	297,062	1,385	6,331,553	Planning
Coast Pump Station Rehab/Replacement	10,370,000	-	-	10,370,000	Not Initiated
Beltz 10 and 11 Rehab & Development	360,000	187,814	-	172,186	Planning
Felton Diversion Pump Station Improvements	4,270,000	201,255	-	4,068,745	Planning
Beltz WTP Filter Rehabilitation	450,000	69,525	248,646	131,829	Construction
Subtotal Raw Water Diversion and Groundwater System Projects	**31,220,000**	**2,077,364**	**903,021**	**28,239,615**	
Raw Water Transmission					
Coast Pump Station 20-inch RW Pipeline Replacement	7,140,000	6,879,089	1,711	259,201	Post-Construction
Newell Creek Pipeline Rehab/Replacement	1,680,000	1,162,817	55,227	461,956	Design
Newell Creek Pipeline Felton/GHWTP	30,650,000	1,065,789	118,926	29,465,285	Design
Newell Creek Pipeline Felton/Loch Lomond	40,730,000	-	-	40,730,000	Not Initiated
Brackney Landslide Area Pipeline Risk Reduction	5,640,000	577,691	19,334	5,042,974	Design
North Coast Pipeline Repair/Replacement - Planning	640,000	599,524	5,882	34,593	Planning
North Coast Pipeline Repair/Replacement - Ph 4	20,140,000	-	-	20,140,000	Not Initiated
North Coast Pipeline Repair/Replacement - Ph 5	20,870,000	-	-	20,870,000	Not Initiated
Subtotal Raw Water Transmission	**127,490,000**	**10,284,911**	**201,080**	**117,004,009**	
Surface Water Treatment					
GHWTP Tube Settler Replacement	1,630,000	1,459,022	-	170,978	Post Construction
GHWTP Flocculator Rehab/Replacement	1,980,000	1,783,039	2,985	193,976	Post Construction
GHWTP Concrete Tanks Replacement	46,210,000	7,412,373	117,672	38,679,955	Construction
GHWTP Facilities Improvement Project	146,170,000	6,513,293	22,845	139,633,862	Design
River Bank Filtration Study	7,390,000	963,735	322	6,425,942	Planning
Subtotal Surface Water Treatment	**203,380,000**	**18,131,462**	**143,824**	**185,104,714**	
Distribution System Storage, Water Main and Pressure Regulation, and Metering Projects					
University Tank No. 4 Rehab/Replacement	6,320,000	199,525	3,804	6,116,671	Planning
University Tank No. 5 Rehab/Replacement	4,310,000	4,228,104	341	81,554	Post Construction
Meter Replacement Project	13,710,000	1,656,857	221,970	11,831,173	Design
Engineering and Distribution Main Replacement Projects [2]	35,050,000	5,878,920	689	29,170,391	Ongoing
Distribution System Water Quality Improvements	90,000	24,259	-	65,741	Planning
Facility & Infrastructure Improvements	7,890,000	-	-	7,890,000	Ongoing
Subtotal Distribution Storage, Wmain Pressure Reg, and Metering	**67,370,000**	**11,987,665**	**226,804**	**55,155,531**	
Subtotal Infrastructure Resiliency and Climate Adaptation	**539,670,000**	**91,225,618**	**3,963,594**	**444,480,788**	
OTHER RISK MANAGEMENT AND RISK REDUCTION PROJECTS					
Site Safety and Security					
Security Camera & Building Access Upgrades	550,000	281,433	-	268,567	Construction
GHWTP Gate Entrance Upgrades	465,000	184,351	250,364	30,285	Construction
GHWTP SCADA Radio System Replacement	150,000	-	-	150,000	Not Initiated
CMMS Software Replacement - Water Share	390,000	-	4,297	385,703	Not Initiated
Subtotal Site Safety and Security	**1,555,000**	**465,784**	**254,661**	**834,555**	
Staff Augmentation					
Water Program Administration [3]	23,850,000	-	-	23,850,000	Ongoing
Subtotal Staff Augmentation	**23,850,000**	**-**	**-**	**23,850,000**	
Contingency					
Management Reserve [4]	47,710,000	-	-	47,710,000	Ongoing
Subtotal Contingency	**47,710,000**	**-**	**-**	**47,710,000**	
Storage for Emergency Facility and System Repair Tools and Equipment					
Bay Street Reservoir Storage Building	150,000	-	-	150,000	Design
Union/Locust Admin Building Back Up Power Generator	50,000	-	-	50,000	Design
Subtotal Storage for Emergency and System Repair	**200,000**	**-**	**-**	**200,000**	
Subtotal Other Risk Management and Risk Reduction Projects	**73,315,000**	**465,784**	**254,661**	**72,594,555**	
GRAND TOTAL	**708,125,000**	**96,187,798**	**4,463,895**	**607,473,306**	

[1] Total Project Budget at Completion is from the FY22 budget request and rounded to the nearest 10,000.

[2] Prior year actuals for Main Replacements start in FY19

[3] Staff augmentation budget appropriations and actual expenses are transferred to specific projects during year-end process.

[4] Management Reserve budget appropriations are transferred to specific projects upon approval. Total Budget to decrease in FY23 budget process.

WATER COMMISSION
INFORMATION REPORT

DATE: 12/01/2021

AGENDA OF: 12/06/2021

TO: Water Commission

FROM: Chris Berry, Watershed Compliance Manager and Sarah Easley Perez, Principal Planner

SUBJECT: Santa Cruz Water Rights Project Final Environmental Impact Report and Project Approval Recommendation

---

RECOMMENDATION: That the Water Commission support the staff recommendation that City Council adopt a resolution certifying the Final Environmental Impact Report for the Santa Cruz Water Rights Project; and, adopt a resolution approving the Santa Cruz Water Rights Project, adopting a Mitigation, Monitoring, and Reporting Program, and adopting CEQA Findings of Fact and a Statement of Overriding Considerations.

BACKGROUND: The Santa Cruz Water Rights Project (Proposed Project) will improve flexibility in the operation of the City's water system while enhancing stream flows for local anadromous fisheries. The key elements of the project include 1) modifications to City's existing water rights to improve flexibility in the operations of the system while enhancing stream flows for local anadromous fisheries, 2) the ability to implement certain elements of the Water Supply Augmentation Strategy, and 3) improvements to surface water diversions that could be implemented after the water rights modifications are approved. Should City Council certify the Final Environmental Impact Report (Final EIR) and approve the project, staff will continue coordination with the State Water Resources Control Board (SWRCB) in their process to approve proposed water rights changes under their purview. Upon approval of those proposed changes, additional action by City Council will be sought to approve proposed water rights changes to pre-1914 water rights under the purview of the City.

The Water Commission has been presented information and updates on the Santa Cruz Water Rights Project throughout the development of both the project and the EIR. In addition to ongoing regular project updates in the Water Supply Augmentation Strategy, Quarterly Work Plan Updates, Water Commission reports specifically addressing the Proposed Project included the following:

- November 5, 2018 - Update on California Environmental Quality Act (CEQA) Processes for Various Water Projects Including the Water Rights Amendment Project,
- October 5, 2020 - Updated Project Description for the Water Rights Changes Environmental Impact Report Draft Environmental Impact Report, and

- July 12, 2021 - Santa Cruz Water Rights Project: Draft Environmental Impact Report Release.

DISCUSSION: In June 2021, the Santa Cruz Water Rights Project Draft EIR was released for a 45-day public review period. A total of six letters commenting on the Draft EIR were received during the public review period, and a seventh letter from the California Department of Fish and Wildlife was accepted late with prior approval of an extension. In total, the following comment letters were received:

- California Department of Fish and Wildlife (CDFW) (Stacy Sherman)
- San Lorenzo Valley Water District (SLVWD) (Gina Nicholls)
- Soquel Creek Water District (SqCWD) (Ron Duncan)
- San Andreas Land Conservancy (SALC) (David Kossack)
- The Valley Women's Club of San Lorenzo Valley (Kristen Sandel)
- Douglas Deitch
- Robin Rainwater

Responses to comments were sent to commenting public agencies in accordance with CEQA in November 2021. The Final EIR has been prepared including all comment letters received on the Draft EIR and provides responses to individual comments that were submitted. It also summarizes sections of the EIR document that were revised to provide corrected or clarified text, including a section on new plans available since the release of the Draft EIR, or in response to the public comments.

With the Water Commission's support of the staff recommendation, the next step would be for City Council to certify the Final EIR and approve the project. The proposed City Council Agenda Report is attached.

FISCAL IMPACT: Certification of the Final EIR and project approval has no direct fiscal implications. However, future contracts related to project construction would be required and will have fiscal impacts. Funds are available in a variety of capital projects to complete this work.

PROPOSED MOTION: To support staff's recommendation that City Council adopt a resolution certifying the Final Environmental Impact Report for the Santa Cruz Water Rights Project; and, adopt a resolution approving the Santa Cruz Water Rights Project, adoption a Mitigation, Monitoring, and Reporting Program, and adopting CEQA Findings of Fact and a Statement of Overriding Considerations.

ATTACHMENT(S):

1. Proposed City Council Agenda Report for December 14, 2021

City Council
AGENDA REPORT

DATE: 11/29/2021

AGENDA OF: 12/14/2021

DEPARTMENT: Water

SUBJECT: Santa Cruz Water Rights Project – Final Environmental Impact Report and Project Approval (WT)

RECOMMENDATION: Resolution certifying the Final Environmental Impact Report for the Santa Cruz Water Rights Project.

Resolution approving Santa Cruz Water Rights Project, adopting a Mitigation, Monitoring, and Reporting Program, and adopting CEQA Findings and a Statement of Overriding Consideration.

BACKGROUND:

Summary: The Santa Cruz Water Rights Project (Proposed Project) will improve flexibility in the operation of the City's water system while enhancing stream flows for local anadromous fisheries. The key elements of the project include 1) modifications to City's existing water rights to improve flexibility in the operations of the system while enhancing stream flows for local anadromous fisheries, 2) the ability to implement certain elements of the Water Supply Augmentation Strategy, and 3) improvements to surface water diversions that could be implemented after the water rights modifications are approved. Should City Council certify the Final Environmental Impact Report (Final EIR) and approve the project, staff will continue coordination with the State Water Resources Control Board (SWRCB) in their process to approve proposed water rights changes under their purview. Upon approval of those proposed changes, additional action by City Council will be sought to approve proposed water rights changes to pre-1914 water rights under the purview of the City.

Water Rights: There are generally two types of surface water appropriative water rights recognized in California: pre-1914 and post-1914. The City currently holds both pre-1914 and post-1914 water rights. The year 1914 is significant because, effective December 9, 1914, the California Legislature enacted a requirement that a state agency authorize new appropriations of water from surface water sources in California. Before 1914, public agencies and private individuals and entities were able to initiate appropriative water rights through their own actions, which in some cases were provided by posting notices adjacent to diversions. Changes to post-1914 water rights involve a formalized approval process through the California State Water Resources Control Board (SWRCB), including analysis under the California Environmental Quality Act (CEQA) and opportunities for public involvement. Changes to the City's pre-1914 water rights, provided the changes do not injure other legal users of water, can (and will) be made by City Council's adoption of a resolution amending those rights and generally are subject to CEQA review and therefore public comment.

Generally speaking, a water right describes the location, rate, season, annual totals, and end use(s) of water from a particular source. The City's water supply system draws water from surface water sources that include two diversions on the San Lorenzo River (the Felton Diversion in Felton and the Tait Diversion in the City) and four diversions on local North Coast streams (Laguna Creek, Reggiardo Creek, Liddell Spring, and Majors Creek), making up approximately 95% of the annual water supply. That amount is supplemented, primarily during the dry season, by limited production from groundwater wells in the Santa Cruz Mid-County Groundwater Basin in unincorporated Santa Cruz County. Finally, the City stores water in Loch Lomond Reservoir in Ben Lomond, which is formed by Newell Creek Dam to help meet dry season water demand.

The City's pre-1914 water rights authorize diversion from the North Coast steams, and post-1914 water rights authorize diversions from the San Lorenzo River and Newell Creek.

Agreed Flows: In a parallel effort, staff have been negotiating with the California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS) levels of stream flows that would better protect federally listed Central California Coast coho salmon (coho) and Central California Coast steelhead (steelhead) in all watersheds from which the City diverts water. As part of the City's pending Anadromous Fisheries Habitat Conservation Plan (ASHCP), these "Agreed Flows" will benefit local fisheries, specifically for coho and steelhead, but result in a reduction in the amount of available to the city for diversion. These Agreed Flows will be incorporated into the City water rights. However, while providing protection to local fisheries, the Agreed Flows will result in a reduction in the amount of water available for diversion to customers. It is for this reason that the City is requesting modifications to the water rights to provide flexibility of use. Elements of flexibility are described below.

Supply Augmentation: The City has also been pursuing water supply augmentation alternatives to address identified supply shortages associated with inadequate water supply during dry years and critical shortages during drought years. The Water Department is currently implementing the recommendations of the Water Supply Advisory Committee (WSAC) Final Report on Agreements and Recommendations (October 2015) which provides the alternatives to evaluate to address supply shortages. These include additional water conservation, water transfers and/or exchanges with neighboring water agencies, aquifer storage and recovery, advance-treated recycled water or desalination. Modifications to the water rights are needed to support the full implementation of water transfers and/or exchanges and aquifer storage and recovery.

DISCUSSION:

In 2018, with the Agreed Flows defined and work on implementing the supply alternatives underway, the Water Department turned its attention back to resolving outstanding water rights issues and ensuring the flexibility needed to operate the water system into the future. City staff assembled a team to assist with the further development of a comprehensive project to address these challenges and to assist with California Environmental Quality Act (CEQA) compliance and filings with the SWRCB.

The Proposed Project includes modifications to the City's existing water rights to improve flexibility in operation of the City's water system to better use limited water resources, the Agreed Flows to enhance stream flows for local anadromous fisheries, and components of water supply augmentation projects and surface water diversion improvements that could be implemented after the water rights modifications are approved that would improve water supply reliability.

The Proposed Project includes components that are considered in this EIR at a "project" level (project component) and components that are considered at a "programmatic" level (programmatic component), and therefore this EIR is both a project EIR and a programmatic EIR. Project components could proceed following the adoption of the Final EIR, approval of the project and final approval of the petitions by the SWRCB, programmatic components would include potential future activities that may occur after the City water rights are modified, but are reasonably possible to include as part of the analysis.

Table 1 below shows the project and programmatic components evaluated in the EIR.

Table 1. Project and Programmatic Components

Proposed Project Components	Project Components	Programmatic Components
WATER RIGHTS MODIFICATIONS		
Place of Use	✓	
Points of Diversion	✓	
Underground Storage and Purpose of Use	✓	
Method of Diversion	✓	
Extension of Time	✓	
Bypass Requirement (Agreed Flows)	✓	
INFRASTRUCTURE COMPONENTS		
Water Supply Augmentation		
Aquifer Storage and Recovery (ASR)		✓
New ASR Facilities at Unidentified Locations		✓
Beltz ASR Facilities at Existing Beltz Well Facilities	✓	
Water Transfers and Exchanges and Intertie Improvements		✓
Surface Water Diversion Improvements		
Felton Diversion Fish Passage Improvements		✓
Tait Diversion and Coast Pump Station Improvements		✓

CEQA Compliance: To initiate the CEQA process, Santa Cruz Water Department, as lead agency, released an Initial Study and Notice of Preparation of an Environmental Impact Report (EIR) in October 2018, initiating a 30-day public review and scoping period. Two public meetings were held during the public review period, one in Santa Cruz and one in Ben Lomond.

From 2018 into 2021, the project team worked to refine the proposed water rights modifications project description and to develop the Draft EIR including ongoing engagement with neighboring water districts, Soquel Creek Water District, San Lorenzo Valley Water District, Scotts Valley Water District, and Central Water District.

On June 10, 2021, the Santa Cruz Water Rights Project Draft EIR was released for a 45-day public review period, extending through July 26, 2021. Per the requirements of CEQA, a Notice of Availability (NOA) of a Draft EIR was prepared and distributed describing the proposed project, Draft EIR, and how to review and comment on the Draft EIR. The NOA was filed with the Santa Cruz County Clerk and submitted to the Governor's Office of Planning and Research, State Clearinghouse. The NOA, Draft EIR, and other required submittals have been posted on CEQAnet, the online database for the State Clearinghouse. The Draft EIR is also available online on the Water Department's website and Santa Cruz Public Library's website. Paper copies of the

Draft EIR are available at the Water Department Engineering Counter, by appointment, and at local library branches.

An extensive notification and outreach program was developed to encourage the public to review and comment on the Draft EIR. The NOA was run two times each in the Santa Cruz Sentinel and in the Press Banner, and posted at the City bulletin boards on Church Street, at the Planning Department, and at project component sites (Beltz Wells, Felton Diversion, and Tait Diversion); the NOA was also mailed to agencies, interested parties, and to over 3,000 residents in areas near project components; press releases, multiple postings on social media including Facebook and Next Door, and a radio interview with the Water Director, Rosemary Menard, on the KSCO morning show on June 10.

Two virtual public information meetings regarding the Proposed Project and Draft EIR were held on July 14 and July 20, 2021.

Finally, a Community Guide to the Santa Cruz Water Rights Project was prepared in both English and Spanish for release concurrent with the Draft EIR and provides an overview of the project, describes project benefits, and presents a summary of the CEQA process. The Community Guide was posted on the City's website under both the project webpage (https://www.cityofsantacruz.com/government/city-departments/water/water-rights-4231), and on the project environmental documents webpage (https://www.cityofsantacruz.com/Home/Components/BusinessDirectory/BusinessDirectory/126/2089).

The EIR includes an analysis of the following environmental issue areas:

- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Wildfire
- Hydrology and Water Quality
- Land Use, Agriculture and Forestry, and Mineral Resources
- Noise and Vibration
- Recreation
- Transportation
- Utilities and Energy
- Climate Change Considerations
- CEQA-Required Sections: Cumulative Impacts, Growth Inducement, Significant Unavoidable Impacts, Significant Irreversible Changes, and Alternatives.

Significant and unavoidable impacts were identified in the EIR related to temporary construction noise associated with well drilling at new ASR facilities and at Beltz 9 ASR facility. All other impacts were determined to be less than significant or potentially significant with mitigation measures identified to reduce those potentially significant impacts to less than significant.

A total of six letters commenting on the Draft EIR were received during the public review period, and a seventh letter from the California Department of Fish and Wildlife was accepted late with prior approval of an extension. In total, the following comment letters were received:

- California Department of Fish and Wildlife (CDFW) (Stacy Sherman)
- San Lorenzo Valley Water District (SLVWD) (Gina Nicholls)
- Soquel Creek Water District (SqCWD) (Ron Duncan)
- San Andreas Land Conservancy (SALC) (David Kossack)
- The Valley Women's Club of San Lorenzo Valley (Kristen Sandel)
- Douglas Deitch
- Robin Rainwater

Responses to comments were sent to commenting public agencies in accordance with CEQA. The Final EIR includes all comment letters received on the Draft EIR and provides responses to individual comments that were submitted. It also summarizes sections of the EIR document that were revised to provide corrected or clarified text, including a section on new plans available since the release of the Draft EIR, or in response to the public comments.

SWRCB Process: The Department has been closely engaged with the SWRCB throughout this process. Following the release of the NOP in January 2019, the Water Department submitted the necessary change petitions for its post-1914 appropriate water rights to the SWRCB. As mentioned earlier, these petitions cover a variety of changes to the City's existing post-1914 water rights including: modifying the place(s) of use and points and methods of diversion, adding flexibility to purpose of use, extension of time, and adding the Agreed Flows.

None of the requested changes increase the amount of water rather add flexibility that will both enable regional water resource management, increase supply reliability and resiliency, and improve instream flows for special-status fish species.

Once the SWRCB has reviewed the FEIR and resolved or cancelled any protests, it will determine whether a hearing will be necessary to complete the petitions process. This determination is instrumental in understanding the timeline for the rest of the project. Should a hearing not be warranted, final approval of the petitions could occur within 6 months. However, should a hearing be required, the project approval could take a year or more. If the drought continues however, the timeline could shift to prioritize SWRCB resources on more urgent issues. The figure below provides an outline of the SWRCB water rights petition approval process.

It is anticipated that changes to pre-1914 North Coast water rights regarding Agreed Flows, which the SWRCB does not have jurisdiction over, will be completed through a future Council resolution process subsequent to SWRCB final approval of the petitions currently being considered. In related matters, the full Majors Creek pre-1914 water right will be temporarily dedicated to instream flow purposes at that time to ensure continuous use and preservation of the right.[1]

The Santa Cruz Water Rights Project is consistent with the Health in All Policies pillars of equity, public health and sustainability in that its core objectives are to provide reliable, high-quality

[1] The Majors Diversion is currently inoperable due to a pipeline break. Pre-1914 water rights can be subject to forfeit after five years of consecutive non-use.

drinking water to our customers through the flexible use of resources while being protective of the natural resources.

Next Steps: The Water Commission has received information on the Proposed Project and has found the analyses to be sound. With the Water Commission's comprehensive review of the project and support of staff's recommendation, the next step would be for City Council to certify the Final EIR and approve the project. It is therefore recommended that City Council, by resolution, (1) certify the Final EIR for the Santa Cruz Water Rights Project and (2) approve the Santa Cruz Water Rights Project and adopt a Mitigation Monitoring and Reporting Program, CEQA Findings, and a Statement of Overriding Considerations.

FISCAL IMPACT: Certification of the Final EIR and project approval has no direct fiscal implications. However, future contracts related to project construction would be required and will have fiscal impacts. Funds are available in a variety of capital projects to complete this work.

Prepared By:	**Submitted By:**	**Approved By:**
Chris Berry Watershed Compliance Manager and Sarah Easley Perez Principal Planner	Heidi Luckenbach Interim Water Director	Rosemary Menard Interim City Manager

ATTACHMENTS:

1. Resolution certifying the Final Environmental Impact Report for the Santa Cruz Water Rights Project
2. Resolution approving Santa Cruz Water Rights Project, adopting a Mitigation, Monitoring, and Reporting Program, and adopting CEQA Findings of Fact and a Statement of Overriding Consideration (including two Exhibits)
3. Draft and Final Environmental Impact Report for the Santa Cruz Water Rights Project (available for review online at https://www.cityofsantacruz.com/waterenvdocs)

RESOLUTION NO. NS-xx,xxx

RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF SANTA CRUZ CERTIFYING THE FINAL
ENVIRONMENTAL IMPACT REPORT FOR THE
SANTA CRUZ WATER RIGHTS PROJECT

WHEREAS, the City of Santa Cruz (hereinafter "City") is pursuing proposed changes to its post-1914 water-right permits and licenses through the filing of change and extension petitions with the State Water Resources Control Board (SWRCB) that would result in modifications related to places of use, methods of diversion, points of diversion and rediversion, underground storage and purpose of use, extension of time and stream bypass requirements for fish habitat shown in Appendix B of the Final Environmental Impact Report ("Final EIR"), herein incorporated by reference as Exhibit A; and

WHEREAS, the City is pursuing related actions that would be implemented following modifications of the City's post-1914 permits and licenses by SWRCB, including the Beltz 8, 9, 10 and 12 Aquifer Storage and Recovery ("ASR") facilities, new ASR facilities at other sites, water transfers and exchanges with other regional water providers and associated intertie improvements, and surface water diversion improvements; and

WHEREAS, the City will subsequently pursue modifications of the City's pre-1914 water rights after the SWRCB acts on the pending change and extension petitions for its post-1914 permits and licenses; and

WHEREAS, the City, as lead agency under the California Environmental Quality Act (Pub. Res. Code Section 21000 et seq.) and the State CEQA Guidelines (14 Cal. Code Regs. Section 15000 et seq.) (collectively "CEQA"), has completed the Final Environmental Impact Report ("Final EIR") [State Clearinghouse No. 2018102039] for the Santa Cruz Water Rights Project (the "Proposed Project") in compliance with CEQA; and

WHEREAS, in accordance with Section 15082 of the CEQA Guidelines, the City released a Notice of Preparation ("NOP") for the Draft EIR for the Proposed Project on October 15, 2018 and received comments from thirteen (13) public agencies, organizations and individuals in response to the NOP (these comments are included in Appendix A of the Draft EIR, herein incorporated by reference as Exhibit A); and

WHEREAS, two (2) EIR public scoping meetings were duly noticed and held on November 7, 2018 and November 8, 2018 to solicit public and agency comments on the scope of issues to be addressed in the Draft EIR; and

WHEREAS, the Draft EIR, herein incorporated by reference as Exhibit A, was prepared and the City filed a Notice of Completion of the Draft EIR with the Governor's Office of Planning and Research State Clearinghouse on June 11, 2021, which commenced a 45-day state public

agency review period commencing on June 11, 2021 and ending on July 26, 2021; and

WHEREAS, the City filed a Notice of Availability of the Draft EIR with the Santa Cruz County Clerk on June 11, 2021, which commenced a 45-day local public review period commencing on June 11, 2021 and ending on July 26, 2021; and

WHEREAS, the Notice of Availability of the Draft EIR was also posted at the City Planning Department, and the Draft EIR document was available for review at the City's website and at eight (8) local libraries; and

WHEREAS, the City, in accordance with CEQA Guidelines Section 15088, considered and evaluated seven (7) comment letters received on the Draft EIR from members of the public, private organizations, and public agencies and subsequently prepared a comprehensive Final EIR, herein incorporated by reference as Exhibit B, which contains the comment letters and written responses addressing all significant environmental issues in these comment letters; and

WHEREAS, the comprehensive Final EIR consists of the entire EIR document, responses to comments received on the Draft EIR, modifications made to the text of the Draft EIR that are also included in the Final EIR, appendices to the Final EIR, and all documents and resources referenced and incorporated by reference in the Final EIR; and

WHEREAS, on November 22, 2021, the City provided the Final EIR to commenting agencies, thereby satisfying the City's obligations under Public Resources Code section 21092.5, subdivision (a); and

WHEREAS, the Water Commission held a duly noticed and agendized public meeting on the Proposed Project and the Final EIR on December 6, 2021 and issued recommendations to the City Council; and

WHEREAS, the City Council considered the Final EIR at a duly noticed and agendized public meeting on December 14, 2021;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Santa Cruz hereby finds and determines the following:

1. The foregoing recitals are true and correct and are included herein by reference as findings.

2. The City Council certifies that the Final EIR has been completed in compliance with CEQA, the State CEQA Guidelines, and local procedures adopted pursuant thereto.

3. The City Council hereby finds that the Final EIR reflects the independent judgment and analysis of the City, as required by Public Resources Code Section 21082.1.

4. The City Council has independently reviewed and analyzed the Final EIR and considered the information contained therein and all comments, written and oral,

received prior to approving this resolution.

5. The City Council therefore hereby certifies the Final EIR for the Project.

PASSED AND ADOPTED this_____day of_____, 2021 by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

APPROVED: _____
Mayor

ATTEST: _____
City Clerk Administrator

List of Exhibits (Incorporated by reference and available online at https://www.cityofsantacruz.com/waterenvdocs):

Exhibit A	Draft Environmental Impact Report Santa Cruz Water Rights Project
Exhibit B	Final Environmental Impact Report Santa Cruz Water Rights Project

RESOLUTION NO. NS-_____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA CRUZ APPROVING THE SANTA CRUZ WATER RIGHTS PROJECT; ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM; AND ADOPTING CEQA FINDINGS OF FACT AND A STATEMENT OF OVERRIDING CONSIDERATIONS

WHEREAS, the City Council of the City of Santa Cruz ("City Council"), by adoption of Resolution No. _____, has certified the Final Environmental Impact Report ("Final EIR") for the Santa Cruz Water Rights Project ("Project"); and

WHEREAS, prior to approving any proposed project for which an EIR has identified significant environmental effects, the City Council, as the decision-making body, is required pursuant to Public Resources Code section 21081, subdivision (a), and CEQA Guidelines section 15091, to adopt findings demonstrating that the City Council has considered and adopted all feasible mitigation measures or feasible project alternatives that can substantially lessen or avoid any significant project-related environmental effects; and

WHEREAS, pursuant to these provisions, proposed CEQA findings have been prepared for the Project, which are attached hereto as Exhibit A regarding the significant environmental effects of the Proposed Project, proposed mitigation measures identified in the Final EIR, and the feasibility of alternatives set forth in the Final EIR; and

WHEREAS, pursuant to those provisions, a Statement of Overriding Considerations, which is included within Exhibit A attached hereto, has been prepared for the Project setting forth the benefits that the City Council concludes outweigh the significant and unavoidable environmental effects of the Project, therefore justifying approval of the Project despite such effects; and

WHEREAS, the City Council is required by Public Resources Code section 21081.6, subdivision (a), to adopt a mitigation monitoring and reporting program to ensure that the mitigation measures adopted by the City Council are carried out; and

WHEREAS, pursuant to this provision, staff has prepared the Mitigation Monitoring and Reporting Program, attached hereto as Exhibit B and incorporated by reference herein, that incorporates the mitigation measures identified in the Final EIR; and

WHEREAS, the City Council has independently reviewed and considered the CEQA Findings and Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program required for approval of the Project; and

WHEREAS, the City Council finds that all elements of the Project, including changes to and extensions of the City's water rights, are necessary for the City to reliably serve the residents, other customers and members of the public who use water from the City's water system; and

WHEREAS, all of the Project's elements are necessary to meet the City's objectives of reliably serving those who rely on the City's water system while protecting sensitive fishes that

rely on the San Lorenzo River, Newell Creek, and the North Coast streams because each of the Project's elements will help to improve the water system's flexibility in light of those fishes' needs for particular streamflows; and

WHEREAS, while the City historically has relied on surface-water storage as a large part of its dry-year supplies, the history of dry years have demonstrated the need for the City to augment its storage capacity through groundwater storage; and

WHEREAS, the City continues to grapple with a history of dry years even though the City's long-term success in reducing water consumption through conservation and demand-management efforts has driven down demand to a statewide low; and

WHEREAS, in 2014 the City Council appointed the 14-member Water Supply Advisory Committee (WSAC) to assess and make recommendations about approaches to improving the reliability of the City's water supply; and

WHEREAS, the WSAC's recommendations acknowledged that a key factor affecting water supply reliability is the lack of local storage and that pursuing storage of available water during the winter in local groundwater aquifers should be explored and pursued; and

WHEREAS, climate change, which is already being experienced in Santa Cruz, is resulting in increasingly variable annual supply, which further emphasizes the need for increased storage of water in years when it is available; and

WHEREAS, as demonstrated by the City's participation in the work of local groundwater management agencies created under the Sustainable Groundwater Management Act in both the Santa Cruz Mid-County Basin and the Santa Margarita Basin, the City is committed to working with neighboring agencies to improve regional coordination of surface-water and groundwater supplies, particularly given that Santa Cruz County does not receive water supplies from any other part of the state.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Santa Cruz hereby finds and determines the following:

1. The foregoing recitals are true and correct and are included herein by reference as findings.

2. The City Council has considered the Final EIR, all information provided by City staff and consultants pertaining to the Project, and all other pertinent documents relating to the Project.

3. The City Council finds, pursuant to Public Resources Code section 21081 and CEQA Guidelines section 15091, that the proposed mitigation measures as set forth in Exhibits A and B are feasible, and will therefore become binding on the City when the Project is approved. The City Council further finds that, for the reasons set forth in Exhibit A, none of the alternatives to the Project, as set forth in the Final EIR, are feasible. The City Council hereby adopts the CEQA Findings of Fact and Statement

of Overriding Considerations attached hereto as Exhibit A and incorporated herein by reference, pursuant to Public Resources Code section 21081 and CEQA Guidelines section 15093.

4. The City Council adopts, pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097, the Mitigation Monitoring and Reporting Program attached hereto as Exhibit B and incorporated herein by reference. The City Council further determines that the Mitigation Monitoring and Reporting Program is designed to ensure that, during implementation of the Project, all other responsible parties implement the components of the Project and comply with the mitigation measures identified in the Mitigation Monitoring and Reporting Program.

5. The City Council approves the Project, as described in Resolution No. NS-xx,xxx, and therefore authorizes and directs the City to take the following actions:

   A. Implement the changes and extensions to the City's water-right permits and licenses that are part of the Project upon the related petitions' approval by the State Water Resources Control Board (SWRCB), subject to City staff presenting the SWRCB's approval orders to the City Council for further consideration and possible additional actions if those orders contain terms that are materially inconsistent with the changes and extensions that are part of the Project.

   B. Construct, implement and operate aquifer storage and recovery (ASR) facilities at the Beltz 8, 9, 10, and 12 wells as described in the Final EIR's project description (see Resolution No. NS-xx,xxx, Exhibit B) promptly upon the SWRCB approval of the necessary changes to the City's water-right permits and licenses, subject to City staff presenting the SWRCB's approval orders to the City Council for further consideration and possible additional actions if those orders contain terms that are materially inconsistent with the changes and extensions that are part of the Project.

   C. Plan new ASR facilities at other sites in the Santa Cruz Mid-County Basin, the Santa Margarita Basin or both of those basins consistent with the Project's programmatic elements described in Final EIR's project description (see Resolution No. NS-xx,xxx, Exhibit B), present further necessary environmental impact analyses, as warranted, and propose approvals of those additional facilities to the Water Commission and the City Council for their consideration.

   D. Plan other programmatic elements of the Project, including water transfers and exchanges with other regional water providers and associated intertie improvements, and surface water diversion improvements, consistent with the Project's programmatic elements described in Final EIR's project description (see Resolution No. NS-xx,xxx, Exhibit B), present further necessary

environmental impact analyses, as warranted, and propose approvals of those components to the City Council for their consideration.

E. Promptly, upon receiving the SWRCB's orders concerning the pending change and extension petitions that are part of the Project, present the Project's proposed changes to the City's pre-1914 water rights in the North Coast streams to the City Council for its consideration.

6. The City Council directs City Staff to file with the County Clerk and the Office of Planning and Research in Sacramento a Notice of Determination commencing the 30-day statute of limitations for any legal challenge to the Project based on alleged non-compliance with CEQA.

PASSED AND ADOPTED this_____day of_____2021 by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

APPROVED: _____
Mayor

ATTEST: _____
City Clerk Administrator

List of Exhibits:

Exhibit A Findings and Statement of Overriding Considerations

Exhibit B Mitigation Monitoring and Reporting Program

Exhibit A

INTENTIONALLY LEFT BLANK

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

City Council of the City of Santa Cruz

Santa Cruz Water Rights Project
Environmental Impact Report

State Clearinghouse Number 2018102039

DECEMBER 14, 2021

Table of Contents

Section **Page No.**

ACRONYMS AND ABBREVIATIONS III

1 INTRODUCTION 1

2 PROJECT DESCRIPTION 3

2.1 Project Location and Setting 3

2.2 City Water Supply Planning Background 3

2.3 Project Purpose and Objectives 4

2.4 Project Characteristics 5

2.4.1 Water Rights Modifications 6

2.4.2 Water Supply Augmentation Components 8

2.4.3 Surface Water Diversion Improvement Components 9

2.4.4 Standard Operational and Construction Practices 10

3 ENVIRONMENTAL REVIEW PROCESS 11

4 RECORD OF PROCEEDINGS 13

5 FINDINGS REQUIRED UNDER CEQA 15

6 MITIGATION MONITORING AND REPORTING PROGRAM 17

7 ENVIRONMENTAL EFFECTS AND MITIGATION MEASURES 19

7.1 Beneficial Impacts 19

7.1.1 Recreation 20

7.1.2 Utilities and Service Systems 20

7.2 Impacts Determined to be Less than Significant 20

7.2.1 Impacts Not Found to be Significant 20

7.2.2 Air Quality 20

7.2.3 Biological Resources 21

7.2.4 Cultural Resources and Tribal Cultural Resources 21

7.2.5 Geology and Soils 21

7.2.6 Greenhouse Gas Emissions 22

7.2.7 Hazards and Hazardous Materials, and Wildfire 22

7.2.8 Hydrology and Water Quality 22

7.2.9 Land Use, Agriculture and Forestry, and Mineral Resources 23

7.2.10 Noise 23

7.2.11 Recreation 23

7.2.12 Transportation 24

7.2.13 Utilities and Energy 24

7.3 Significant Impacts That Can Be Mitigated to a Less-Than-Significant Level 25

7.3.1 Biological Resources 25
7.3.2 Cultural Resources and Tribal Cultural Resources 30
7.3.3 Geology and Soils 33
7.3.4 Hazards, Hazardous Materials, and Wildfire 35
7.3.5 Hydrology and Water Quality 36
7.3.6 Land Use, Agriculture, Forestry, and Mineral Resources 39
7.3.7 Noise 40
7.4 Significant Unavoidable Impacts 41
7.4.1 Noise 41
7.4.2 Utilities and Energy 42

8 PROJECT ALTERNATIVES 45
8.1 Basis for Alternatives-Feasibility Analysis 45
8.1.1 No Project Alternative 46
8.1.2 Alternative 1: Agreed Flows Only Without Other Project Components 49
8.1.3 Alternative 2: All Project Components Except Place of Use Expansion 51
8.1.4 Alternative 3: All Project Components Except Aquifer Storage and Recovery 53

9 STATEMENT OF OVERRIDING CONSIDERATIONS 57
9.1 Significant and Unavoidable Impacts 57
9.2 Overriding Considerations 57

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
ADI	Area of Direct Impact
ASHCP	Anadromous Fisheries Habitat Conservation Plan
ASR	Aquifer Storage and Recovery
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
City	City of Santa Cruz
CHRIS	California Historical Resources Information System
CNPS	California Native Plant Society
CWD	Central Water District
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
ESA	Federal Endangered Species Act
GHG	greenhouse gas
GSP	Groundwater Sustainability Plan
HMCP	Hazardous Materials Contingency Plan
LACM	Natural History Museum of Los Angeles County
MLD	Most Likely Descendant
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NMFS	National Marine Fisheries Service
NOP	Notice of Preparation
POU	place of use
PRIMP	Paleontological Resources Impact Mitigation Program
Project	Santa Cruz Water Rights Project
SAA	Streambed Alteration Agreement
SCWD	Santa Cruz Water Department
SLF	Sacred Lands File
SLVWD	San Lorenzo Valley Water District
SqCWD	Soquel Creek Water District
SVWD	Scotts Valley Water District
SVP	Society of Vertebrate Paleontology

INTENTIONALLY LEFT BLANK

1 Introduction

The City of Santa Cruz (City), as lead agency, prepared an environmental impact report (EIR) for the Santa Cruz Water Rights Project (Project). In its entirety, the EIR consists of the June 2021 Draft EIR (Draft EIR) and the November 2021 Final EIR (Final EIR). The Project includes components that are considered in the EIR at a "project" level (project components) and components that are considered at a "programmatic" level (programmatic components), and therefore the EIR is both a project EIR and a program EIR pursuant to Section 15161 and Section 15168(a)(2) of the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.).

The underlying purpose of the Project is to improve flexibility in operation of the City's water system while enhancing stream flows for local anadromous fisheries. During the development of the City's pending Anadromous Fisheries Habitat Conservation Plan (ASHCP), the City negotiated with the California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS) to develop levels of stream flows that would better protect federally listed Central California Coast coho salmon (coho) and Central California Coast steelhead (steelhead) in all watersheds from which the City diverts water (Agreed Flows). Incorporating these Agreed Flows into all City water rights is necessary to benefit local fisheries, specifically for coho and steelhead, but would further constrain the City's limited surface water supply. Consequently, the City needs to improve operational flexibility of the water system within existing rights, permits, and licenses to allow better use of limited water resources. To do this, the City is proposing water rights modifications to its existing rights, permits, and licenses to expand the authorized place of use (POU), to better utilize existing diversions, and to extend the City's time to put water to full beneficial use. Therefore, the EIR analyses these water rights modifications and potential future activities that may occur after the City water rights are modified.

These findings, as well as the accompanying statement of overriding considerations in Section 9, have been prepared in accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and its implementing guidelines, the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.). Specifically, the findings are prepared pursuant to Public Resources Code Section 21081, subdivision (a), and CEQA Guidelines Section 15091, subdivision (a). The statement of overriding considerations has been prepared pursuant to Public Resources Code Section 21081, subdivision (b), and CEQA Guidelines Section 15093.

INTENTIONALLY LEFT BLANK

2 Project Description

2.1 Project Location and Setting

The Project involves the water system and areas served by the City of Santa Cruz (City);[1] the water service areas of San Lorenzo Valley Water District (SLVWD), Scotts Valley Water District (SVWD), Soquel Creek Water District (SqCWD), and Central Water District (CWD); and the remainder of the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin. The Project is located within Santa Cruz County and is generally bounded by the unincorporated communities of Aptos and Le Selva Beach on the east, Bonny Doon Road on the west, Boulder Creek on the north, and the Pacific Ocean on the south.

The City's water supply system draws water from surface water sources, including two diversions on the San Lorenzo River (the Felton Diversion in Felton and the Tait Diversion in the City) and four diversions on local North Coast streams (Laguna Creek, Reggiardo Creek, Liddell Spring, and Majors Creek), which make up approximately 95% of the annual supply. That amount is supplemented, primarily during the dry season, by limited production from groundwater wells in the Santa Cruz Mid-County Groundwater Basin in unincorporated Santa Cruz County. The City stores water in Loch Lomond Reservoir in Ben Lomond, which is formed by Newell Creek Dam to help meet dry-season water demand and provide back-up supply during winter storms that make river diversions problematic due to turbidity issues. The City, like other water suppliers in Santa Cruz County, has no imported water supply from outside the region. Due to limited water supply and storage, the City faces inadequate water supply during dry years and critical shortages during drought years.

2.2 City Water Supply Planning Background

Due to limited water supply and storage, the City faces inadequate water supply during dry years and critical shortages during drought years. The City has been pursuing possible new water supplies for the past several decades to address these shortages. Most recently, the Water Supply Advisory Committee (WSAC) Final Report on Agreements and Recommendations (October 2015) provides the Water Supply Augmentation Strategy portfolio elements to address the agreed upon worst-year gap of 1.2 billion gallons per year during modeled worst-year conditions identified during the WSAC planning process, including the following:

- **Element 0: Additional water conservation** with a goal of achieving an additional 200 to 250 million gallons per year (mgy) of demand reduction by 2035 by expanding water conservation programs.
- **Element 1: Passive recharge of regional aquifers** by working to develop agreements for delivering surface water to the SqCWD and/or the SVWD[2] so they can rest their groundwater wells, help the aquifers recover, and potentially store water for use by the City in drought years.
- **Element 2: Active recharge of regional aquifers** by using existing infrastructure and potential new infrastructure in the Santa Cruz Mid-County Groundwater Basin, the Santa Margarita Groundwater Basin, or in both to store water that can be available for use by the City in drought years.

[1] The City owns and operates a water system that diverts and serves water both within the City limits and outside of those limits. References to the City's water system, rights and supplies therefore refer to areas both inside and outside of the City limits.

[2] While WSAC recommendations considered only delivering surface water to SqCWD and SVWD, current conceptual-level planning considers delivering surface water to SLVWD and CWD as well.

- **Element 3: A potable water supply using advanced-treated recycled water** as its source as a supplemental or replacement supply in the event the groundwater storage strategies described above prove insufficient to meet the goals of cost-effectiveness, timeliness, or yield. In the event advanced-treated recycled water does not meet the City's needs, desalination would become Element 3.

Implementation of the Project would support Elements 1 and 2 above.

2.3 Project Purpose and Objectives

The underlying purpose of the Project is to improve flexibility in operation of the City's water system while enhancing stream flows for local anadromous fisheries. During the development of the City's ASHCP, the City negotiated with the California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS) to develop levels of stream flows that would better protect federally listed Central California Coast coho salmon (coho) and Central California Coast steelhead (steelhead) in all watersheds from which the City diverts water (Agreed Flows). Incorporating these Agreed Flows into all City water rights is necessary to benefit local fisheries, specifically for coho and steelhead, but would further constrain the City's limited surface water supply. Consequently, the City needs to improve operational flexibility of the water system within existing rights, permits, and licenses to allow better use of limited water resources. To do this, the City is proposing water rights modifications to its existing rights, permits, and licenses to expand the authorized place of use (POU), to better utilize existing diversions, and to extend the City's time to put water to full beneficial use. The objectives for the Project are as follows:

1. Improve the flexibility with which the City operates the water system to facilitate the City's ability to meet drinking water demand while providing flow conditions protective of coho and steelhead.
2. Provide flow conditions that are protective of coho and steelhead within all streams from which the City diverts water, as negotiated with CDFW and NMFS during the preparation of the pending ASHCP, which is the habitat conservation plan being developed under the federal ESA and CESA.
3. To improve the City's limited storage and support the implementation of the City's Water Supply Augmentation Strategy Element 1 (passive recharge of regional aquifers via water transfers and exchanges) and Element 2 (active recharge of regional aquifers via ASR) in order to deliver a safe, adequate, reliable and environmentally sustainable water supply.
4. Facilitate opportunities within the City and regionally for conjunctive use[3] of the City's surface water rights in combination with groundwater, including by addressing significant barriers to implementing conjunctive use due to the place of use associated with the City's water-right permits and licenses to, among other things, assist in implementation of the "Water Transfers/In Lieu Groundwater Recharge" element of the Santa Cruz Mid-County Groundwater Basin Groundwater Sustainability Plan (GSP).
5. Provide more options for where and how the City can utilize its existing appropriative water rights.
6. Provide for the underground storage of surface water primarily to support more reliable and improved water supply by allowing the City to use such stored water during dry periods and also to contribute to the protection of groundwater quality from seawater intrusion per the Santa Cruz Mid-County Groundwater Basin GSP and to allow for the implementation of the "Aquifer Storage and Recovery" element of the Santa Cruz Mid-County Groundwater Basin GSP.

[3] Conjunctive use refers to a range of actions and projects that provide for the coordinated management of surface water and groundwater supplies to increase total supplies and enhance water supply reliability. Conjunctive use actions and projects can also be used to sustainably manage groundwater supplies.

7. Remove potential operational constraints on City water rights that do not explicitly recognize direct diversion.
8. Allow additional time for the City to fully reach beneficial use under existing water-right permits at Felton.
9. Improve fish screening at the Felton Diversion and Tait Diversion and improve fish passage at the Felton Diversion. Consideration of fish passage improvements at Tait Diversion would be incorporated into future projects as required.
10. Address reliability and operational deficits at the Tait Diversion and Coast Pump Station to meet other project objectives.
11. Implement state policy favoring integrated regional water management by involving the City and other local agencies in "significantly improving" the "reliability of water supplies" by "diversifying water portfolios, taking advantage of local and regional opportunities, and considering a broad variety of water management strategies," specifically by making more extensive conjunctive use of the surface-water, groundwater and groundwater-storage resources available to the City and, when Agreed Flows and City demands are met, making excess surface water under the City's surface-water rights available to neighboring agencies who are dependent on overdrafted groundwater basins. (Water Code Section 10531(c).)
12. Consider other related actions or activities that would be foreseeable as a logical part in a chain of contemplated actions should the Project be approved, including facilities that would provide for ASR, water transfers, and water exchanges.

2.4 Project Characteristics

The Project includes proposed modifications to the City's existing water rights to improve flexibility in operation of the City's water system to better use limited water resources, while enhancing stream flows for local anadromous fisheries. The Project also includes water supply augmentation components and surface water diversion improvements that could be implemented after the water rights modifications are approved.

As shown in Table 1-1 and summarized below, the Project includes components that are considered in the EIR for the Project at a "project" level (project component) and components that are considered at a "programmatic" level (programmatic component), and therefore the EIR is both a project EIR and a programmatic EIR. The programmatic components of the Project would include potential future activities that may occur after the City water rights are modified. Because most of these activities are considered to be reasonably foreseeable as a logical part in a chain of contemplated actions, but the full physical extent and timing of these improvements are not known at this time, most of these activities are addressed in the EIR at a programmatic level. Some of these actions would be undertaken in conjunction with surrounding water districts and some would be undertaken solely by the City. If warranted, additional environmental analysis will be undertaken at the time these foreseeable future activities or actions are under active consideration. The project and programmatic components include the following:

- **Water rights modifications,** which are evaluated at a project level in this EIR, including modifications related to place of use, method of diversion, points of diversion and rediversion, underground storage and purpose of use, extension of time and stream bypass requirements for fish habitat (referred to in this EIR as Agreed Flows);
- **Water supply augmentation components**, which are evaluated at a project or programmatic level in this EIR, depending on what is known about the components, including:
    - Aquifer storage and recovery (ASR):
        - New ASR facilities at unidentified locations (referred to as "new ASR facilities" in this EIR), which are evaluated at a programmatic level.

        - Beltz ASR facilities at the existing Beltz well facilities (referred to as "Beltz ASR facilities" in this EIR), which are evaluated at a project level.
    - Water transfers and exchanges and associated intertie improvements, which are evaluated at a programmatic level in this EIR.
- **Surface water diversion improvements**, which are evaluated at a programmatic level in this EIR, including the Felton Diversion fish passage improvements and the Tait Diversion and Coast Pump Station improvements.

The subsections below further describe these project components and programmatic components.

Table 2-1. Project and Programmatic Components

Project Components	Project Components	Programmatic Components
WATER RIGHTS MODIFICATIONS		
Place of Use	✓	
Points of Diversion	✓	
Underground Storage and Purpose of Use	✓	
Method of Diversion	✓	
Extension of Time	✓	
Bypass Requirement (Agreed Flows)	✓	
INFRASTRUCTURE COMPONENTS		
Water Supply Augmentation		
Aquifer Storage and Recovery (ASR)		✓
New ASR Facilities at Unidentified Locations		✓
Beltz ASR Facilities at Existing Beltz Well Facilities	✓	
Water Transfers and Exchanges and Intertie Improvements		✓
Surface Water Diversion Improvements		
Felton Diversion Fish Passage Improvements		✓
Tait Diversion and Coast Pump Station Improvements		✓

2.4.1 Water Rights Modifications

Project components include modifications to the City's existing pre-1914 and post-1914 appropriative water rights. The City will pursue changes to its pre-1914 water rights through action by the Santa Cruz City Council and changes to its post-1914 permits and licenses through the filing of change and extension petitions with the State Water Resources Control Board (SWRCB). No change to the authorized amounts of diversions under any of the City's appropriative water rights is proposed as part of the Project. Overall, implementation of these water rights modifications would provide the City greater flexibility in the operation of the water system while enhancing stream flows for local anadromous fisheries. The water rights modifications include the following:

- **Expansion of POUs.** The Project would expand the authorized POUs of the City's pre-1914 and post-1914 appropriative water rights to include the areas served by the City, two local groundwater basins, and the service areas of neighboring water agencies. Expanded POUs are necessary for improving the potential for conjunctive use of the region's resources with adjoining water agencies and within the region's groundwater basins.

- **Method of Diversion.** The Project would result in explicit authorization of 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.
- **Points of Diversion.** To provide for the needed flexibility in the operation of the City's water system, the Project would add points of diversion and rediversion. Specifically, the Project would add the City's existing Beltz system as points of rediversion[4] into and out of groundwater storage to the City's Tait Licenses, Felton Permits and pre-1914 appropriative rights. This would provide flexibility for utilizing the City's San Lorenzo River surface water supplies for the Beltz ASR subcomponent of the Project (see below). The Project would also add the Tait Diversion as a new point of diversion on the Felton Permits, which would give the City the option of diverting water under the existing Felton Diversion water rights at either the Felton Diversion or downstream at the Tait Diversion. This would provide the ability to divert water under the Felton Permits with or without activation of the Felton Diversion inflatable dam and improve operational flexibility. Additionally, when water under the Felton Permits would be diverted at the Tait Diversion, water would remain in the San Lorenzo River longer, bypassing the Felton Diversion before being diverted at the Tait Diversion, thus providing fisheries benefits.
- **Underground Storage and Purpose of Use.** In addition to adding points of rediversion into and out of groundwater in the Beltz system, as described above, the Project would add underground storage supplements to the City's Tait Licenses and Felton Permits to allow for the proposed Beltz ASR facilities of the Project. An underground storage supplement is required to be filed with the SWRCB for post-1914 water right permits and licenses seeking to divert surface water to groundwater aquifers to artificially recharge these aquifers for further beneficial use. The underground storage supplements to allow for the Beltz ASR facilities are the only underground storage supplements being pursued now because these facilities are the only proposed ASR facilities whose locations and proposed capacities are currently known. The City would not be able to implement and operate other ASR facilities under its post-1914 permits and licenses without submitting additional underground storage supplements to those permits and licenses to the SWRCB and obtaining the SWRCB's approval. See Section 2.4.2, Water Supply Augmentation Components, for additional information about ASR. Protection of water quality would also be added as a new purpose of use to all City appropriative water rights to support the use of surface water for ASR as it contributes to the protection of groundwater quality from seawater intrusion per the Santa Cruz Mid-County GSP.
- **Extension of Time.** The Project would extend the time under the Felton Permits to December 31, 2043 in which the City could make full beneficial use of the 3,000 afy of diversion authorized by the Felton Permits. Additional time is needed by the City as (1) total water use has declined due to an extensive and successful water conservation program among other factors; (2) full implementation of the Agreed Flows (see below) necessitates increased flexibility within the water system, requiring additional time to fully reach beneficial use; and (3) water supply options that may be necessary to meet City water supply needs, including projects such as ASR, require time to implement. The extension of time, in combination with the addition of underground storage supplements on the Felton Permits, would enable those permits to serve their original function for enabling the City to supplement the Loch Lomond Reservoir's storage, but through a means that has become feasible since those permits were issued. ASR has become a viable technology over the last several decades and will enable the City to use the water available under the Felton Permits through the new, more efficient means of groundwater storage. The City's groundwater storage under the Felton Permits also will allow the City to contribute to the sustainability of the currently critically overdrafted Santa Cruz Mid-County Groundwater Basin, consistent with the Sustainable Groundwater Management Act.

[4] A point of rediversion is a point, other than the point of initial diversion, where controlled water is diverted from a natural stream or another water source. In this case, water would be rediverted into and out of groundwater storage in the Beltz system.

- **Bypass Requirements (Agreed Flows).** The Project would include modifying City water rights to incorporate the bypass requirements for each water right the City negotiated with CDFW and NMFS during development of the pending ASHCP to better protect federally listed coho and steelhead in all watersheds from which the City diverts water. The Agreed Flows would be incorporated into both pre-1914 rights on the North Coast streams and post-1914 permits and licenses on the San Lorenzo River and Newell Creek. While it is expected that Agreed Flows will become terms and conditions of permits and authorizations issued under the Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), and Section 1600 et seq. of the California Fish and Game Code, the Project would commit the City to these flows regardless of the outcomes of these processes.

2.4.2 Water Supply Augmentation Components

2.4.2.1 Aquifer Storage and Recovery

As indicated in Section 2.2, the City's Water Supply Augmentation Strategy includes active recharge of regional aquifers, referred to as aquifer storage and recovery or ASR. ASR involves using existing infrastructure and potential new infrastructure to inject surface water, treated to drinking water standards, and storage of this water during normal or wet periods in local groundwater basins, which would act as underground storage reservoirs. This stored water can then be available for use by the City in dry periods via extraction.

The Project includes the City installing and operating ASR facilities within the Santa Cruz Mid-County Groundwater Basin inside or outside the areas served by the City, and in the Santa Margarita Groundwater Basin outside the areas served by the City. ASR would include new ASR facilities at unidentified locations (referred to as "new ASR facilities" in this EIR) and Beltz ASR facilities at the existing Beltz well facilities (referred to as "Beltz ASR facilities" in this EIR). Overall, ASR is a programmatic component of the Project; however, as a subcomponent of ASR, Beltz ASR facilities are a project component of the Project.

To the extent ASR facilities and operations would occur outside of the City's existing water-right place of use, they would be enabled by the Project's expansion of the POU of the City's appropriative water rights. As described in Section 2.4.1, the Project includes the addition of underground storage supplements to the City's post-1914 appropriative permits and licenses only for the Beltz ASR facilities because those are the only proposed ASR facilities whose locations and proposed capacities are currently known.

The total ASR capacity is intended to provide sufficient capacity to address the City's agreed-upon worst-year water supply gap of 1.2 billion gallons per year, described in Section 2.2. As a subcomponent of ASR, Beltz ASR would provide only a portion of the total ASR capacity at Beltz 8, 9, 10 and 12 groundwater well facilities and would include the installation of upgrades to the existing Beltz system to allow for injection of treated water from the City's GHWTP and subsequent extraction. The remainder of the total capacity would be provided at new ASR facilities. Further planning and analysis are required to determine locations for any potential new ASR facilities. Actual capacity and operational characteristics for new ASR facilities and Beltz ASR facilities would be based on completion of ASR pilot programs, design-level groundwater modeling, and the ASR design process.

Standard operational practices for all ASR facilities would be implemented during development and operation of ASR facilities. Operation of ASR facilities would be consistent with applicable adopted existing or future GSPs and could contribute to groundwater sustainability of the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin, depending on the facilities' location. Contribution to groundwater sustainability of

the Santa Cruz Mid-County Groundwater Basin would also contribute to the protection of groundwater quality from seawater intrusion per the Santa Cruz Mid-County GSP in support of the proposed water quality beneficial use, identified in Section 2.4.1.

2.4.2.2 Water Transfers and Exchanges and Intertie Improvements

The City's Water Supply Augmentation Strategy also includes passive recharge of regional aquifers by transferring treated drinking water to other water districts in the area so they can rest their groundwater wells, help the aquifers recover, and potentially store water for use by the City in dry periods.

Modification of the City's appropriative water rights would facilitate the opportunity for potential future water transfers and exchanges with neighboring water agencies, including SVWD, SLVWD, SqCWD and CWD. Water transfers and exchanges and associated interties are evaluated as a programmatic component of the Project. Such transfers and exchanges would likely be provided for via agreements with defined terms related to timing, volume of water, water year conditions, return of water, etc., that would be developed between the City and one or more of the neighboring agencies. New or improved interties between the water systems of the City and of neighboring water agencies may be needed to facilitate future water transfers and exchanges once City water rights are modified. The Project anticipates these potential water transfers and exchanges and new and improved interties, which include new or upgraded pipelines and new or upgraded pump stations needed to transfer water between and through the service areas of the referenced water agencies. Specifically, the Project anticipates a new pipeline and pump station to intertie the water systems of the City and SVWD (referred to in this EIR as the City/SVWD intertie). Additionally, two segments of replacement piping, an upgraded pump station and two new pump stations are needed to intertie the water systems of the City, SqCWD and CWD (referred to in this EIR as the City/SqCWD/CWD intertie).

2.4.3 Surface Water Diversion Improvement Components

Improvements at the Felton Diversion and Tait Diversion and Coast Pump Station are included as programmatic components of the Project.

2.4.3.1 Felton Diversion Fish Passage Improvements

The Felton Diversion is a surface water diversion/intake on the San Lorenzo River that pumps raw water from the river to the City's Loch Lomond Reservoir. Proposed fish passage improvements at the Felton Diversion would provide for compliance with current fish passage and screening requirements. The modifications would be designed to support use of City water rights while improving passage for coho and steelhead. These improvements may include fish screen replacement, installation of a traveling brush system to keep the fish screens operating at optimum efficiency, and construction of a continuous downstream outmigration bypass route within the existing bypass channel with downstream opening slide gate.

2.4.3.2 Tait Diversion and Coast Pump Station Improvements

The Tait Diversion is located on a fairly straight, low-gradient section of the San Lorenzo River approximately 2.4 miles upstream of the mouth of the river and adjacent to the Coast Pump Station facility. Improvements at the Tait Diversion could include, but would not be limited to, (1) a new or modified intake design with increased capacity to allow the City the option of diverting water under the existing Felton Diversion water rights at either the

Felton Diversion or at the Tait Diversion, (2) upstream and/or downstream hydraulic modifications, (3) improvements to the check dam, and (4) any required fish passage upgrades to meet current state and federal fisheries protection criteria. The River Pumps at the Coast Pump Station facility would also require improvements, which could include, but would not be limited to, (1) new pumps and motors, (2) primary and backup power upgrades, which could include upgrades to the Pacific Gas & Electric substation, (3) a new or modified concrete wet well, and (4) a solids handling system.

2.4.4 Standard Operational and Construction Practices

The Project includes standard operational practices to provide for the implementation of ramping rates at all City diversion facilities. Ramping rates are diversion rates that gradually alter diversions from a stream channel to limit the downstream rate of change to stream stage, which is the water level in a stream or river. The operation of all ASR injections and extractions will be consistent with the sustainable management criteria and will avoid any undesirable results as identified in the adopted Santa Cruz Mid-County Groundwater Basin GSP and in any future revisions to the GSP. ASR facilities and associated injections and extractions in the Santa Margarita Groundwater Basin will be planned to be installed and operated after the Santa Margarita Groundwater Basin GSP is prepared, adopted, and submitted to the Department of Water Resources in January 2022. The proposed timing will provide for ASR injections and extractions consistent with the sustainable management criteria, and will avoid any undesirable results identified in the pending Santa Margarita Groundwater Basin GSP and in any future revisions to the GSP. ASR facilities will also be permitted, constructed, and operated in accordance with the SWRCB Water Quality Order 2012-0010, General Waste Discharge Requirements for Aquifer Storage and Recovery Projects that Inject Drinking Water into Groundwater, which provides for compliance with applicable regulations and policies, including the RWQCB Basin Plans and State Water Board Resolution 68-18 (the Antidegradation Policy). Additionally, stream diversions for ASR injections and to support City water transfers and/or exchanges will be avoided during certain dry conditions.

The Project also includes standard construction practices to provide for erosion control, air quality control, water quality protection, in-channel work measures including those related to dewatering, general habitat protection, and other construction practices.

3 Environmental Review Process

In accordance with Section 15082 of the CEQA Guidelines, the City issued a Notice of Preparation (NOP) of a Draft EIR on October 15, 2018. Pursuant to CEQA Guidelines Sections 15023, subdivision (c), and 15087, subdivision (f), the State Clearinghouse in the Office of Planning and Research was responsible for distributing environmental documents to state agencies, departments, boards, and commissions for review and comment. The City followed required procedures with regard to distribution of the appropriate notices and environmental documents to the State Clearinghouse. The State Clearinghouse made that information available to interested agencies for review and comment. The NOP was circulated for a 30-day review period on October 15, 2018. Additionally, two public scoping meetings regarding the scope of the analysis for the EIR were held on November 7, 2018 in the City of Santa Cruz, and on November 8, 2018 in the community of Ben Lomond. These meetings were held to receive comments regarding the scope of issues to be addressed in the EIR. The NOP and all comments received on the NOP are presented in Appendix A of the Draft EIR and summarized in Chapter 2, Introduction, of the Draft EIR. (Draft EIR p. 2-10.)

The EIR includes an analysis of the following issue areas:

- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Wildfire
- Hydrology and Water Quality
- Land Use, Agriculture and Forestry, and Mineral Resources
- Noise and Vibration
- Transportation
- Utilities and Energy
- CEQA-Required Sections: Significant Unavoidable Impacts, Growth Inducement, Cumulative Impacts (incorporated into each technical section above), and Alternatives

On June 10, 2021, the City released the Draft EIR to public agencies, other interested parties, the general public, and the State Clearinghouse for a 45-day public review period that ended on July 26, 2021. (Final EIR, p. 2-5.) The Final EIR was published on November 22, 2021. The Water Commission considered the Final EIR and the Project at a public meeting held on December 6, 2021. The City Council considered the Project and Final EIR at a regularly scheduled public meeting on December 14, 2021, and then certified the Final EIR and approved the Project.

INTENTIONALLY LEFT BLANK

4 Record of Proceedings

In accordance with Public Resources Code Section 21167.6, subdivision (e), the record of proceedings for the City's decision on the project includes the following documents:

- The NOP (October 15, 2018), including related comments from agencies, organizations, and individuals, and all other public notices issued by the City in conjunction with the Project;
- The Draft EIR for the Project (June 2021) and all appendices, as well as all documents cited or referenced therein;
- The Final EIR for the Project (November 2021) and all appendices, as well as all documents cited or referenced therein;
- Any minutes and/or verbatim transcripts of all information sessions and public meetings held by the City in connection with the Project;
- Any documentary or other evidence submitted to the City at such information sessions and public meetings;
- Any and all resolutions adopted by the City Council regarding the Project, and all staff reports, analyses, and summaries related to the adoption of those resolutions;
- Matters of common knowledge to the City, including, but not limited to federal, state, and local laws and regulations;
- Any documents expressly cited in the Draft and Final EIRs and these findings, in addition to those cited above; and
- Any other materials required for the record of proceedings by Public Resources Code Section 21167.6, subdivision (e).

The City Council has relied on all of the documents listed above in reaching its decision on the Project, even if not every document was formally presented to the City Council or City Staff as part of the City files generated in connection with the Project.

The documents constituting the record of proceedings are available for review by responsible agencies and interested members by appointment at the City of Santa Cruz Water Department Engineering Counter, located at 212 Locust Street, Suite C, Santa Cruz, California 95060.

INTENTIONALLY LEFT BLANK

5 Findings Required Under CEQA

Public Resources Code Section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" The same statute provides that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." Section 21002 goes on to provide that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

The mandate and principles announced in Public Resources Code Section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a project, the approving agency must adopt a written finding reaching one or more of three permissible conclusions. The first such finding is that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR. The second permissible finding is that such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. The third potential conclusion is that specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR. (CEQA Guidelines, § 15091, subd. (a).) Under CEQA, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors. The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715.) Moreover, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors." (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (*City of Del Mar*); see also *Cal. Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001–1002.)

For purposes of these findings, the term "avoid" refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less-than-significant level. In contrast, the term "substantially lessen" refers to the effectiveness of such measure or measures to substantially reduce the severity of a significant effect, but not to reduce that effect to a less-than-significant level. CEQA requires the lead agency to adopt feasible mitigation measures or, in some instances, feasible alternatives, to substantially lessen or avoid significant environmental impacts that would otherwise occur.

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons that the agency found the project's benefits outweigh its unavoidable adverse environmental effects. Two significant unavoidable environmental effects were identified for the Project. Impact NOI-2: Substantial Increase in Ambient Noise Levels in Excess of Standards, discussed in Section 4.10, Noise and Impact UTL-1: New or Expanded Facilities, discussed in Section 4.13, Utilities and Energy.

INTENTIONALLY LEFT BLANK

6 Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program has been prepared for the Project and is included in the Final EIR as Chapter 10. The Mitigation Monitoring and Reporting Program has been approved by the City Council by the same Resolution that adopts these findings. The City will use the Mitigation Monitoring and Reporting Program to track compliance with project mitigation measures. The Mitigation Monitoring and Reporting Program will remain available for public review during the compliance period.

INTENTIONALLY LEFT BLANK

7 Environmental Effects and Mitigation Measures

The Final EIR identified significant environmental effects (or impacts) resulting from the implementation of the Project. Specifically, significant environmental effects were identified during the construction-phase of the proposed infrastructure improvements of the Project. Most of these construction effects, however, can be avoided by the adoption of feasible mitigation measures or alternatives. Other construction effects specifically related to ASR well drilling, however, cannot be avoided by the adoption of feasible mitigation measures, and thus will be significant and unavoidable. While several alternatives avoid the significant unavoidable impacts associated with ASR well drilling, none of these alternatives were determined to be environmentally superior to the Project on an overall basis. Moreover, for reasons discussed in Section 8 below of these findings, none of the alternatives that avoid these significant unavoidable impacts is feasible in the judgment of the City Council. Moreover, these unavoidable significant effects can be substantially lessened by the adoption of feasible mitigation measures. In addition, for reasons set forth in Section 9 of this document, the City Council has determined that overriding economic, social, and other considerations outweigh these construction-phase significant, unavoidable effects of the Project.

The City's findings with respect to the project's significant effects and mitigation measures are set forth below for each significant impact. The following statement of findings does not attempt to describe the full analysis of each environmental impact contained in the EIR. Instead, it provides a summary description of each impact, describes the applicable mitigation measures identified in the Final EIR and adopted by the City, and states the City's findings on the significance of each impact after imposition of the adopted mitigation measures. Full explanations of these environmental findings and conclusions can be found in the Final EIR. These findings hereby incorporate those explanations by reference. In making these findings, the City Council ratifies, adopts, and incorporates into these findings the analysis and explanation in the Final EIR and ratifies, adopts, and incorporates in these findings the determinations and conclusions of the Final EIR relating to environmental impacts and mitigation measures.

7.1 Beneficial Impacts

While CEQA does not require the identification of beneficial impacts, such impacts were identified for the Project in the Final EIR, as such impacts would result with the Project for a few of the impact categories addressed by the identified standards of significance. This determination applies if there is a beneficial change in any of the physical conditions within the area affected by the Project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. The beneficial impacts below were identified in the EIR as a result of evaluating the identified standards of significance that were the basis for the determination of significant impacts. This list is not intended to document all beneficial impacts of the Project.

7.1.1 Recreation

Impact REC-1: Conflicts with Existing Recreational Uses. The Project will not change or conflict with existing recreational uses.[5]

7.1.2 Utilities and Service Systems

Impact UTL-2: Water Supplies. The Project will provide sufficient water supplies to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

7.2 Impacts Determined to be Less than Significant

The following impacts were evaluated in the EIR and determined to be below a level of significance due to the design, location, and scope of the Project and/or through adherence with existing laws, codes, and statutes. Based on the environmental analysis presented in the Final EIR and the comments received by the public on the Draft EIR, substantial evidence indicates that, even in the absence of mitigation, the Project would not have potentially significant impacts with respect to the environmental categories listed below. Support for the environmental impact conclusions listed below are provided throughout Chapter 4, Environmental Setting, Impacts, and Mitigation Measures, of the Final EIR.

7.2.1 Impacts Not Found to be Significant

Issues related to aesthetics, population and housing, and public services were found not to be significant.

7.2.2 Air Quality

Impact AIR-1: Conflict with an Applicable Air Quality Plan. Construction and operation of the Project will result in emissions of criteria pollutants, but will not exceed adopted thresholds of significance and therefore will not conflict with the MBARD's AQMP.

Impact AIR-2: Criteria Pollutant Emissions. Construction and operation of the Project will result in emissions of criteria pollutants, but will not exceed adopted thresholds of significance, violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, the Project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Impact AIR-3: Exposure of Sensitive Receptors. Construction and operation of the Project will not expose sensitive receptors to substantial pollutant concentrations.

Impact AIR-4: Result in Other Emissions Adversely Affecting a Substantial Number of People. Construction and operation of the Project will not result in other emissions that will adversely affect a substantial number of people.

[5] The Proposed Project will have a beneficial effect on boating in Loch Lomond Reservoir, given that it will improve conditions for boating compared to existing conditions by increasing lake levels, which will allow for a full season of boating more frequently. Given this beneficial effect, the Proposed Project will not conflict with existing recreational uses at Loch Lomond Reservoir.

Impact AIR-5: Cumulative Air Quality Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to air quality, with the exception of substantial pollutant concentrations, but the Project's contribution to this impact will not be cumulatively considerable.

7.2.3 Biological Resources

Impact BIO-4: Wildlife Movement. Construction of the Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Operation of the Project will have no adverse effects.

Impact BIO-5: Cumulative Biological Resources Impacts. Construction of the Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to biological resources, but the Project's contribution to this impact will not be cumulatively considerable. Operation of the Proposed Project would not result in a significant cumulative impact.

7.2.4 Cultural Resources and Tribal Cultural Resources

Impact CUL-4: Cumulative Cultural Resource and Tribal Cultural Resource Impacts. Construction of the Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to cultural resources and tribal cultural resources, but the Project's contribution will not be cumulatively considerable.

7.2.5 Geology and Soils

Impact GEO-2: Unstable Geologic Unit or Soils. Construction and operation of the Project will not cause adverse effects involving landslides or be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the Project, and potentially result in on- or off-site landslide, slope failure/instability, subsidence, or collapse.

Impact GEO-3: Expansive Soil. Construction of Project infrastructure components may be located on expansive soil, as defined by the 2019 California Building Code, but will not create substantial direct or indirect risks to life or property caused in whole or in part by the Project's exacerbation of the existing environmental conditions.

Impact GEO-5: Cumulative Geologic Hazards. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to geology and soils, but the Project's contribution to this impact will not be cumulatively considerable.

Impact GEO-6: Cumulative Paleontological Resources Impacts. Construction of the Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to paleontological resources, but the Project's contribution to this impact will not be cumulatively considerable.

7.2.6 Greenhouse Gas Emissions

Impact GHG-1: Greenhouse Gas Emissions. Construction and operation of the Project will not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact GHG-2: Conflict with an Applicable Greenhouse Gas Reduction Plan. Construction and operation of the Project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Impact GHG-3: Cumulative GHG Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will result in a significant cumulative impact related to greenhouse gas emissions, but the Project's contribution to this impact will not be cumulatively considerable.

7.2.7 Hazards and Hazardous Materials, and Wildfire

Impact HAZ-1: Routine Transport, Use, Production, or Disposal of Hazardous Materials. Construction and operation of the Project will require use and transportation of petroleum products and small quantities of hazardous materials but will not result in a significant hazard to the public or environment.

Impact HAZ-4: Impair Emergency Response. Construction of the Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact HAZ-5: Wildfire Hazards. Construction and operation of the Project will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, even though some programmatic components may be located in or near state responsibility areas.

Impact HAZ-6: Cumulative Hazardous Materials and Emergency Response Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to routine transport, use, disposal, or accidental release of hazardous materials, or related to interference with an adopted emergency response plan or emergency evacuation plan.

Impact HAZ-7: Cumulative Wildfire Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to exposing people or structures to a significant risk of loss, injury, or death involving wildland fires, but the Project's contribution will be less than cumulatively considerable.

7.2.8 Hydrology and Water Quality

Impact HYD-1: Surface Water Quality Standards and Waste Discharge Requirements. Construction and operation of the Project will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality. In addition, the Project will not conflict with or obstruct implementation of a water quality control plan related to surface water.

Impact HYD-4: Flood, Tsunamis, and Seiche Zones. Construction and operation of the Project in flood hazard, tsunami, or seiche zones will not risk release of pollutants due to project inundation.

Impact HYD-5: Cumulative Hydrology and Water Quality Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to hydrology and water quality.

7.2.9 Land Use, Agriculture and Forestry, and Mineral Resources

Impact LU-1: Conflicts with Land Use Plans, Policies, or Regulations. Construction and operation of the Project will not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impact LU-3: Loss of Mineral Resources. Construction of the Project could potentially result in the location of infrastructure components on lands containing mineral resources in existing quarries; however, the Project will not result in the loss of availability of a mineral resource.

Impact LU-4: Cumulative Land Use Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to conflicts with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impact LU-5: Cumulative Agriculture and Forestry Impacts. Construction of the Project, in combination with past, present, and reasonably foreseeable future development, will result in a significant cumulative impact related to loss of Farmland and forest land, but the Project's contribution will not be cumulatively considerable.

Impact LU-6: Cumulative Mineral Resource Impacts. Construction of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to loss of availability of mineral resources.

7.2.10 Noise

Impact NOI-4: Cumulative Noise Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to noise and vibration.

7.2.11 Recreation

Impact REC-2: Increased Use of Existing Parks or Recreational Facilities. Operation of the Project will not increase the use of parks or recreational facilities such that substantial physical deterioration of the facilities will occur or be accelerated.

Impact REC-3: Cumulative Recreation Impacts. Operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not change or conflict with existing recreational uses, but could increase the use of parks or recreational facilities such that substantial physical deterioration of the facilities will occur or be accelerated. However, the Project's contribution will not be cumulatively considerable.

7.2.12 Transportation

Impact TRA-1: Conflict with Program, Plan, Ordinance, or Policy Addressing the Circulation System. Construction and operation of the Project will not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Impact TRA-2: Vehicle Miles Traveled. Construction and operation of the Project will not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) or cause an increase in VMT which is greater than 15% below the regional average VMT.

I**mpact TRA-3: Geometric Design Hazards.** Construction and operation of the Project will not substantially increase hazards due to a geometric design feature or incompatible use.

Impact TRA-4: Emergency Access. Construction of the Project will not result in inadequate emergency access.

Impact TRA-5: Cumulative Transportation Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to transportation.

7.2.13 Utilities and Energy

Impact UTL-3: Wastewater Treatment Capacity. Operation of the Project will have adequate wastewater treatment capacity to serve project demand.

Impact UTL-4: Solid Waste Generation. Construction and operation of the Project will not generate solid waste in excess or state or local standards, or of the capacity of local infrastructure, or impair attainment of solid waste reduction goals.

Impact UTL-5: Compliance with Solid Waste Regulation. Construction and operation of the Project will comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impact UTL-6: Result in Wasteful, Inefficient or Unnecessary Consumption of Energy Resources. Construction and operation of the Project will not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Impact UTL-7: Conflict with an Applicable Renewable Energy or Energy Efficiency Plan. Construction and operation of the Project will not result in conflicts with or otherwise obstruct a state or local plan for renewable energy or energy efficiency.

Impact UTL-8: Cumulative Water and Wastewater Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to water and wastewater.

Impact UTL-9: Cumulative Landfill Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to landfill capacity.

Impact UTL-10: Cumulative Energy Impacts. Construction and operation of the Project, in combination with past, present, and reasonably foreseeable future development, will not result in a significant cumulative impact related to energy.

7.3 Significant Impacts That Can Be Mitigated to a Less-Than-Significant Level

The following summary describes impacts of the Project that, without mitigation, will result in significant adverse impacts. However, upon implementation of the mitigation measures provided in the EIR, these impacts will be reduced to less-than-significant levels.

7.3.1 Biological Resources

Potential Effects. Potentially significant effects were identified for the Project in the following categories for biological resources:

- **Impact BIO-1A: Special-Status Species – Fish.** Construction of the Project could have a substantial adverse effect on special-status fish, but will not interfere with the movement of special-status fish, reduce the habitat, cause a population to drop below self-sustaining levels, or substantially reduce the number or restrict the range of any special-status fish species. Operation of the Project will not have such substantial adverse effects.
- **Impact BIO-1B: Special-Status Species – Other Wildlife.** Construction of the Project could have a substantial adverse effect on other special-status wildlife, but will not interfere substantially with the movement of special-status wildlife, and will not reduce habitat, cause a population to drop below self-sustaining levels, or substantially reduce the number or restrict the range of any special-status wildlife species. Operation of the Project will not have such substantial adverse effects.
- **Impact BIO-1C: Special-Status Species – Plants.** Construction of the Project could have a substantial adverse effect on special-status plants, but will not threaten to eliminate a plant community or restrict the range of any special-status plant species. Operation of the Project will not have such substantial adverse effects.
- **Impact BIO-2: Riparian and Sensitive Vegetation Communities.** Construction of the Project could have a substantial adverse effect on riparian and sensitive vegetation communities, but will not threaten to eliminate a plant community. Operation of the Project will not have such substantial adverse effects.
- **Impact BIO-3: Jurisdictional Aquatic Resources.** Construction of the Project could have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, or hydrological interruption. Operation of the Project will not have such substantial adverse effects.

Support for these environmental impact conclusions are fully discussed in Section 4.3, Biological Resources, of the Final EIR. (Final EIR pp. 4.3-77 – 4.3-110.)

Mitigation Measures. Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts related to special-status species, sensitive vegetation communities, and jurisdictional non-wetland waters were developed for the Project and are listed below.

MM BIO-1: **Project Siting (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements and Tait Diversion and Coast Pump Station Improvements).** The City shall locate construction activities, including staging on and adjacent to current development to the maximum extent feasible. All worker parking, equipment storage, and laydown areas should occur within developed areas and maintained rights-of-way, to the extent possible. Dirt or gravel pull-offs to the side of existing roads shall not be used except for temporary staging areas. To minimize temporary disturbances, the City shall restrict all vehicle traffic to established roads, construction areas, and other designated area.

If ground disturbing activities associated with staging and work areas will occur outside existing developed areas and maintained rights-of-way, avoidance and minimization of impacts to special-status species and their habitats, sensitive vegetation communities, and jurisdictional aquatic resources shall be prioritized during the site selection process. Other Project mitigation measures will provide for compensatory mitigation to address potentially significant impacts to special-status species and their habitats (MM BIO-4 through MM-BIO-10), sensitive vegetation communities (MM BIO-11), and jurisdictional aquatic resources (MM BIO-12 through MM BIO-14).

MM BIO-2: **Instream Construction (Applies to Tait Diversion and Coast Pump Station Improvements).** All instream construction activities shall be limited to the low-flow period between June 15 through November 1, except by extension approved by the California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS). If an extension of instream construction activities is determined necessary beyond the low-flow period, then the City shall provide the CDFW and NMFS with a rationale and method that ensures protection of fish species.

MM BIO-3: **Aquatic Vertebrate Rescue and Relocation Plan (Applies to Tait Diversion and Coast Pump Station Improvements).** If native fish or native aquatic vertebrates are present during construction of a new or modified intake design, check dam modifications/notching, Coanda intake screen, and other required fish passage upgrades at the Tait Diversion facility, a native fish and aquatic vertebrate rescue and relocation plan shall be prepared. The plan shall be implemented by a qualified biologist during dewatering to ensure that significant numbers of native fish and aquatic vertebrates are not stranded.

MM BIO-4: **Preconstruction Nesting Bird Survey (Applies to New Aquifer Storage and Recovery [ASR] Facilities and Beltz ASR Facilities, Intertie Improvements, Felton Diversion Improvements, and Tait Diversion and Coast Pump Station Improvements).** During the nesting season (February 1 – August 31), no more than two weeks prior to any ground disturbing activities, including removal of vegetation and clearing and grubbing activities, a nesting bird survey shall be completed by a qualified biologist to determine if any native birds are nesting in or adjacent to the study area (including within a 50-foot buffer for passerine species and a 250-foot buffer for raptors). If any active nests of native birds are observed during surveys, an avoidance buffer around the nests shall be established in the field to ensure compliance with California Fish and Game Code Section 3503. The avoidance buffer shall be determined by a qualified biologist in coordination with City staff, based on species, location, and extent and type of planned construction activity. Impacts to active nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.

MM BIO-5: **Preconstruction Wildlife Surveys (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** A qualified biologist shall conduct preconstruction surveys of all ground disturbance areas within off-pavement project footprint areas to determine if special-status wildlife species are present prior to the start of construction. The biologist will conduct these surveys no more than 2 weeks prior to the beginning of construction.

MM BIO-6: **Exclusionary Fencing (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** High-visibility fencing for Environmentally Sensitive Areas shall be installed around all adjacent special-status species identified during the preconstruction surveys, which shall be retained and not disturbed by the Project, to preclude encroachment within the root-zone of these plants by construction crews or vehicles. A biological monitor shall also accompany the work crew during excavation and installation of exclusion fencing to prevent harm to species that may be active present and moving along the fence route. Buffers that are established around active bird nests and special-status species (including potentially active woodrat nests) to be avoided shall be delineated with flagging. Buffers and fencing for nesting birds shall be maintained until the biological monitor verifies that the birds have fledged. All other fencing shall be maintained in good repair throughout the entire construction period.

MM BIO-7: **Biological Construction Monitoring (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** A qualified biologist shall monitor vegetation removal and ground disturbing activities during all work hours for off-pavement work or once a week for all other construction activities. The monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when birds have fledged if found present before construction. The biologist shall have stop-work authority in the event that a protected species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken. These logs shall be kept on-site and made available for inspection by agency personnel.

MM BIO-8: **Species Relocation (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall capture and relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and/or National Marine Fisheries Service, as appropriate, prior to capture and relocation to obtain approval.

MM BIO-9: **Entrapment Avoidance (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** The construction contractor shall cover all construction-related holes in the ground overnight to prevent entrapment of any native wildlife species. The monitoring biologist shall inspect all construction pipes, culverts, or similar structures that are stored at the work area for one or more nights before the pipe is used or moved. If wildlife species are present, they shall be allowed to exit on their own or a qualified biologist shall move them out of the construction area to nearby habitat that has equivalent value to support the species. If special-status species are present and are federally or state-listed as threatened or endangered, the biologist shall notify the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and/or National Marine Fisheries Service, as appropriate, prior to capture and relocation to obtain approval.

MM BIO-10: **Preconstruction Special-Status Plant Surveys and Compensation (Applies to New Aquifer Storage and Recovery Facilities and Intertie Improvements).** If ground disturbing activities associated with

staging and work areas occur outside existing developed areas and maintained rights-of-way, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria. This plan shall be a component of the project's Habitat Mitigation and Monitoring Plan described in MM BIO-11:

a. A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project;
b. Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement or translocation;
c. Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement or translocation;
d. A description of proposed methods of preservation, restoration, enhancement, and/or translocation;
e. A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations;
f. A monitoring and reporting program to ensure mitigation success; and
g. A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.

MM-BIO-11 **Sensitive Vegetation Communities Compensation (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** Direct impacts to sensitive vegetation communities shall be mitigated via a combination of on-site and off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. It is anticipated that a one-time restoration effort at the completion of the project followed by monitoring and invasive weed removal for a minimum of 3 years would adequately compensate for the direct temporary impacts to these vegetation communities. Areas permanently impacted shall be mitigated through on-site enhancement activities including removal of non-native and invasive species for a minimum of 3 years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below).

Rehabilitation and enhancement activities with Zayante soils, such as along the City/Scotts Valley Water District intertie, will be revegetated with plants native to the Zayante Sandhills, such as sticky monkeyflower (*Mimulus aurantiacus*), deer weed (*Lotus scoparius*), and silver bush lupine (*Lupinus albifrons* var. *albifrons*). These native plants will provide suitable habitat conditions for special-status species that might eventually colonize the temporarily impacted portion of the impact area. These revegetated areas will not include any landscape elements that degrade habitat for the special-status species, including mulch, bark, weed matting, rock, aggregate, or turf grass.

The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will

compensate for impacts of the Project on sensitive vegetation communities and shall at a minimum include discussion of the following:

a. The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into natural regeneration of native species when applicable.
b. The specific methods to be employed for revegetation.
c. Success criteria and monitoring requirements to ensure vegetation community restoration success.
d. Remedial measures to be implemented in the event that performance standards are not achieved.

MM BIO-12: **Preconstruction Jurisdictional Delineation (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements).** If ground disturbing activities associated with staging and work areas will occur outside existing developed areas and maintained rights-of-way, a qualified biologist shall conduct a formal jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the U.S. Army Corps of Engineers, Regional Water Control Board, and/or California Department of Fish and Wildlife within the impact area.

MM BIO-13: **Jurisdictional Aquatic Resources Avoidance (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements).** Future refinements to the Project shall endeavor to avoid jurisdictional aquatic resources regulated by the U.S. Army Corps of Engineers, Regional Water Control Board, and California Department of Fish and Wildlife, to the extent practicable, through design changes or implementation of alternative construction methodologies. Where feasible and appropriate, all jurisdictional aquatic resources not directly affected by construction activities will be avoided and protected by establishing staking, flagging or fencing between the identified construction areas and aquatic resources to be avoided/preserved.

MM BIO-14: **Jurisdictional Aquatic Resources Compensation (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements)**. For unavoidable impacts to jurisdictional aquatic resources, a project-specific mitigation plan shall be developed, approved by the U.S. Army Corps of Engineers, Regional Water Control Board, and/or California Department of Fish and Wildlife, as appropriate, through their respective regulatory permitting processes, and implemented. The mitigation plan shall specify the criteria and standards by which the mitigation will compensate for impacts of the Project and include discussion of the following:

a. The mitigation objectives and type and amount of mitigation to be implemented (in-kind mitigation at a minimum mitigation ratio of 1:1);
b. The location of the proposed mitigation site(s) (within the San Lorenzo River watershed, if possible);
c. The methods to be employed for mitigation implementation (jurisdictional aquatic resource establishment, re-establishment, enhancement, and/or preservation);
d. Success criteria and a monitoring program to ensure mitigation success; and
e. Adaptive management and remedial measures in the event that performance stands are not achieved.

Finding. The City Council finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant biological resources impacts of the Project to less-than-significant levels. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that avoid the potentially significant biological resources impacts of the Project identified in the EIR.

7.3.2 Cultural Resources and Tribal Cultural Resources

Potential Effects. Potentially significant effects were identified for the Project in the following categories for cultural resources and tribal cultural resources:

- **Impact CUL-1: Historic Built Environment Resources.** Construction of some of the Project infrastructure components could cause a substantial adverse change in the significance of historical built environment resource.
- **Impact CUL-2: Archaeological Resources and Human Remains.** Construction of Project infrastructure components could cause a substantial adverse change in the significance of unique archaeological resources or historical resources of an archaeological nature, and/or disturb human remains.

  Impact CUL-3: Tribal Cultural Resources. Construction of Project infrastructure components could cause a substantial adverse change in the significance of a tribal cultural resource.

Support for these environmental impact conclusions are fully discussed in Section 4.4, Cultural Resources and Tribal Cultural Resources, of the Final EIR. (Final EIR pp. 4.4-21 – 4.4-31.)

Mitigation Measures. Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts related to historical built environment resources, archaeological resources or historical resources of an archaeological nature, human remains, and tribal cultural resources were developed for the Project and are listed below.

MM CUL-1: **Historic Era Built Environment Resources.** Potentially significant impacts to historic built environmental resources on the infrastructure component sites shall be addressed through the following measures:

a. **Identify Potential Historic Built Environment Resources (Applies to New Aquifer Storage and Recovery [ASR] Facilities and the Felton Diversion).** When new or upgraded facilities move into project-level design and those developments are being pursued by the City of Santa Cruz (City), a qualified cultural resource specialist shall review the project site and conduct a California Historical Resources Information System (CHRIS) records search. If there are no previously recorded resources or historic era buildings or structures located on the site, no further action is warranted. If these project site review efforts indicate a potential for California Environmental Quality Act (CEQA) historical resources, all buildings and structures within the component site that are 45 years or older, shall be identified and measure b shall be implemented.

b. **Evaluate Potential Built Environment Resources (Applies to New ASR Facilities, City/Soquel Creek Water District/Central Water District Intertie – Soquel Village and Park Avenue Pipelines, and the Felton Diversion).** Should potential CEQA historical resources be identified within the above programmatic infrastructure component sites, prior to project implementation, the City or other lead agency overseeing the Project shall retain a qualified architectural historian,

meeting the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations Part 61), to record such potential resources based on professional standards, to formally assess their significance under CEQA Guidelines Section 15064.5. A Historic Resources Evaluation Report (HRER) shall be prepared by the architectural historian to evaluate properties over 45 years of age under all applicable significance criteria. In consideration of the historic context for the existing water management systems in the region there is a low-likelihood that water management structures that postdate the late 1800s or early 1900s (pioneering water system era) will be found historically significant. Therefore, for existing infrastructure component sites it is likely that the HRER will find that no properties meet the significance criteria and therefore, no CEQA historical resources are likely to be present. No further work shall be required for historic era-built environment properties, buildings, or structures 45 years old or older at these sites that are not found to meet the CEQA historical significance criteria as historical resources. If a property is found to be eligible for listing under the applicable significance criteria and therefore considered a CEQA historical resource, the resource shall be avoided or preserved in place. If avoidance or preservation in place is not feasible, and the historical resource will be modified through design such that it may not be able to convey its historic significance, the City will retain a qualified architectural historian to prepare a subsequent technical report. This required report will assess the Project design plans and/or schematics in conjunction with the subject CEQA historical resource and determine whether the Project conforms with the Secretary of the Interior's Standards for the Treatment of Historic Properties, specifically, the Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Structures). The City shall modify the Project, as needed, to ensure that the Secretary of the Interior's Standards are met such that the historical resource continues to convey its historical significance.

MM CUL-2: **Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources.** Potentially significant impacts to unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources on the infrastructure component sites shall be addressed through the following measures:

a. **Identify Potential Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources (Applies to New Aquifer Storage and Recovery [ASR] Facilities and Other Components where Five Years Have Elapsed).** When new ASR facilities sites are identified and those components are being pursued by the City of Santa Cruz (City), a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, shall conduct a California Historical Resources Information System (CHRIS) records search, a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search and perform an intensive surface reconnaissance within a specifically defined Area of Direct Impact (ADI). Based on the above, all archaeological sites within or near the component site or area of potential effect shall be identified. The sensitivity of the site for discovering unknown resources, shall also be identified. The qualified archaeologist will prepare a technical report with the results of the above. The qualified archaeologist shall attempt to ascertain whether the archaeological sites qualify as unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources. If known or identified resources of these kinds are present on the site, measure c shall be implemented.

This measure shall also be implemented for any other project or programmatic components that are implemented more than five years after the CHRIS records search and NAHC SLF search were conducted.

b. **Standard Sensitivity Training and Inadvertent Discovery Clauses (Applies to all Components).** The City or other lead agency shall include a standard clause in every construction contract for the Project, which requires cultural resource sensitivity training for workers prior to conducting earth disturbance in the vicinity of a documented cultural-resource-sensitive area, should one be identified in the future. Prior to site mobilization or construction activities on the project site, a qualified archaeologist with training and experience in California prehistory and historical period archaeology shall conduct the cultural resources awareness training for all project construction personnel. The training shall address the identification of buried cultural deposits, including Native American and historical period archaeological deposits and potential tribal cultural resources, and cover identification of typical prehistoric archaeological site components including midden soil, lithic debris, and dietary remains as well as typical historical period remains such as glass and ceramics. The training must also explain procedures for stopping work if suspected resources are encountered. Any personnel joining the work crew subsequent to the training shall also receive the same training before beginning work.

   Consistent with Standard Construction Practice #24, standard inadvertent discovery clauses shall also be included in every construction contract for the Project by the City or other lead agency, which requires that in the event that an archaeological resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease until a qualified archaeologist can evaluate the find and make a recommendation for how to proceed, as specified in measure c.

c. **Evaluate Potential Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources (Applies to all Components).** For an archaeological resource that is discovered during initial site review (measure a) or during construction (measure b), the City or other lead agency shall:

   - Retain a qualified archaeologist to determine whether the resource has potential to qualify as either a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource under Public Resources Code section 21074, California Environmental Quality Act (CEQA) Guidelines Section 15064.5, or Section 106 of the National Historic Preservation Act.
   - If the resource has potential to be a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource, the qualified archaeologist, in consultation with the lead agency, shall prepare a research design and archaeological evaluation plan to assess whether the resource should be considered significant under CEQA criteria.
   - If the resource is determined significant, the lead agency shall provide for preservation in place, if feasible. If preservation in place is not feasible, the qualified archaeologist, in consultation with the lead agency, will prepare a data recovery plan for retrieving data relevant to the site's significance. The data recovery plan shall be implemented prior to, or during site development (with a 100-foot buffer around the resource). The archaeologist shall also perform appropriate technical analyses, prepare a full written report and file it with the Northwest Information Center, and provide for the permanent curation of

recovered materials. The written report will provide new recommendations, which could include, but would not be limited to, archaeological and Native American monitoring for the remaining duration of project construction.

Finding. The City Council finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant cultural resources and tribal cultural resources impacts of the Project to less-than-significant levels. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that avoid the potentially significant cultural resources and tribal cultural resources impacts of the Project identified in the EIR.

7.3.3 Geology and Soils

Potential Effects. Potentially significant effects were identified for the Project in the following categories for geology and soils:

- **Impact GEO-1: Seismic Hazards.** Construction and operation of the Project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death resulting from seismic ground shaking, landslides, or seismic related ground failure, including liquefaction and associated lateral spreading.
- **Impact GEO-4: Paleontological Resources.** Construction of the Project could potentially directly or indirectly destroy a unique paleontological resource or site during construction. However, the Project will not directly or indirectly destroy a unique geological feature.

Support for these environmental impact conclusions are fully discussed in Section 4.5, Geology and Soils, of the Final EIR. (Final EIR pp. 4.5-22 – 4.5-27 and 4.5-31 – 4.5-34.)

Mitigation Measures. Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts related to seismic hazards and paleontological resources were developed for the Project and are listed below.

MM GEO-1: **Operation of New Aquifer Storage and Recovery (ASR) Facilities in Liquefaction-Prone Areas (Applies to New ASR Facilities).** To avoid increasing the potential for liquefaction, ASR injections in new wells located in potential liquefaction zones, as depicted on Figure 4.5-3, shall be maintained and operated such that existing shallow groundwater (i.e., depth generally less than 100 feet) does not rise to within 40 feet of the ground surface. Similarly, ASR injections in potential liquefaction zones shall be maintained and operated such that existing groundwater within a depth of 40 feet or less does not rise closer to the ground surface.

MM GEO-2: **Paleontological Resources Impact Mitigation Program and Paleontological Monitoring.** Potentially significant impacts to paleontological resources on the project and programmatic infrastructure component sites shall be addressed through the following measures:

a. **Identify Potential Paleontological Resources (Applies to New Aquifer Storage and Recovery [ASR] Facilities).** When new ASR facilities sites are identified and those components are being pursued by the City or other lead agency, a qualified paleontologist pursuant to the Society of Vertebrate Paleontology (SVP) 2010 guidelines, shall conduct a paleontological records search from the Natural History Museum of Los Angeles County (LACM) and conduct a desktop geological and

paleontological research. Based on the above, all paleontological sites within or near the programmatic component site shall be identified. The sensitivity of the site for discovering unknown paleontological resources, shall also be identified. The qualified paleontologist will prepare a brief technical report with the results of the above. If known or identified resources are present on the site, or if the site has moderate to high sensitivity for paleontological resources, measures b and c shall be implemented.

b. **Develop Paleontological Resources Impact Mitigation Program (Applies to all Known Infrastructure Components and May Apply to New ASR Facilities).** Prior to commencement of any grading activity on infrastructure component sites with moderate to high paleontological sensitivity or that may have such sensitivity at depth, the City or other lead agency shall retain a qualified paleontologist pursuant to the SVP (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project. The PRIMP can be written to include all infrastructure components located in sites with moderate to high paleontological sensitivity. The PRIMP shall be consistent with the SVP (2010) guidelines and shall, at a minimum, contain the following elements:

- Introduction to the project, including project location, description of grading activities with the potential to impact paleontological resources, and underlying geologic units.
- Description of the relevant laws, ordinances, regulations, and standards pertinent to the project and potential paleontological resources.
- Requirements for preconstruction meeting attendance by the qualified paleontologist and/or their designee and worker environmental awareness training for grading contractors that outlines laws protecting paleontological resources and the types of resources that may be encountered on site.
- Identification of locations where full-time paleontological monitoring within geological units with high paleontological sensitivity is required within the project or programmatic sites based on construction plans and/or geotechnical reports.
- Requirements and frequency of paleontological monitoring spot-checks below a depth of five feet below the ground surface in areas underlain by Holocene sedimentary deposits.
- The types of paleontological field equipment the paleontological monitor shall have on-hand during monitoring.
- Discoveries treatment protocols and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils).
- Requirements for adequate reporting and collections management, including daily logs, monthly reports, and a final paleontological monitoring report that details the monitoring program and includes analyses of recovered fossils and their significance and the stratigraphy exposed during construction.
- Requirements for collection and complete documentation of fossils identified within the project site prior to construction and during construction, including procedures for temporarily halting construction within a 50-foot radius of the find while documentation and salvage occurs and allowing construction to resume once collection and documentation of the find is completed. Prepared fossils along with copies of all pertinent field notes, photos, maps, and the final paleontological monitoring report shall be deposited in a scientific institution with paleontological collections. Any curation costs shall be paid for by the City.

c. **Standard Paleontological Clauses in Construction Contracts (Applies to all Infrastructure Components).** The City or other lead agency shall include standard clauses in construction contracts for infrastructure components located in areas with moderate to high paleontological sensitivity. A standard clause shall be included that requires paleontological resource sensitivity training for workers prior to conducting earth disturbance activities. A standard inadvertent discovery clause shall also be included that indicates that in the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find.

Finding. The City Council finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant geology and soils impacts of the Project to less-than-significant levels. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that avoid the potentially significant geology and soils impacts of the Project identified in the EIR.

7.3.4 Hazards, Hazardous Materials, and Wildfire

Potential Effects. Potentially significant effects were identified for the Project in the following categories for hazards, hazardous materials, and wildfire:

- **Impact HAZ-2: Upset and Release of Hazardous Materials.** Construction of the Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- **Impact HAZ-3: Hazardous Materials Near Schools.** Construction and operation of the Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Support for these environmental impact conclusions are fully discussed in Section 4.7, Hazards, Hazardous Materials, and Wildfire, of the Final EIR. (Final EIR pp. 4.7-23 – 4.7-28.)

Mitigation Measures. Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts related to hazardous materials were developed for the Project and are listed below.

MM HAZ-1: Review of Hazardous Materials Site Databases (Applies to New Aquifer Storage and Recovery Facilities). Prior to construction where ground disturbance is required, a review of hazardous materials site databases will be conducted within 0.5 miles of the project site where the construction is proposed (project site). A search shall be conducted no more than six months prior to construction. In addition to sites identified in this environmental impact report, each new site identified within 0.5 miles of the project site will be reviewed for environmental contamination that could impact the project site, including soil, soil vapor, and groundwater contamination. If soil, soil vapor, and/or groundwater contamination is identified in the review, MM HAZ-2 will be implemented.

MM HAZ-2: Hazardous Materials Contingency Plan (Applies to New Aquifer Storage and Recovery Facilities and City of Santa Cruz/Soquel Creek Water District/Central Water District Intertie – Soquel Village

Pipeline). Prior to commencement of any construction activities, a Hazardous Materials Contingency Plan (HMCP) shall be developed that addresses known and suspected impacts in soil, soil vapor, and groundwater from releases on or near the project sites. The HMCP shall include training procedures for identification of contamination. The HMCP shall describe procedures for assessment, characterization, management, and disposal of hazardous constituents, materials, and wastes, in accordance with all applicable state and local regulations. Contaminated soils and/or groundwater shall be managed and disposed of in accordance with local and state regulations. These regulations, as further described in Section 4.7.2, Regulatory Framework, include hazardous material transportation (California Department of Transportation and Department of Toxic Substances Control [DTSC]), hazardous waste regulations (U.S. Environmental Protection Agency and DTSC), worker health and safety during excavation of contaminated materials (California Division of Occupational Safety and Health Administration), and local disposal requirements (DTSC and landfill-specific). The HMCP shall include health and safety measures, which may include but are not limited to periodic work breathing zone monitoring and monitoring for volatile organic compounds using a handheld organic vapor analyzer in the event impacted soils are encountered during excavation activities.

Finding. The City Council finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant hazardous materials impacts of the Project to less-than-significant levels. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that avoid the potentially significant hazardous materials impacts of the Project identified in the EIR.

7.3.5 Hydrology and Water Quality

Potential Effects. Potentially significant effects were identified for the Project in the following categories for hydrology and water quality:

- **Impact HYD-2: Decrease Groundwater Supplies, Interfere with Groundwater Recharge, or Conflict with Groundwater Plan.** Construction and operation of the Project will not decrease groundwater supplies or interfere substantially with groundwater recharge such that sustainable groundwater management of the basin will be impeded. However, the Project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan by potentially affecting local groundwater quality or causing restrictive effects in nearby wells.

- **Impact HYD-3: Alteration to the Existing Drainage Pattern of the Site Area.** Construction and operation of the Project could not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (a) result in substantial erosion or siltation on or off site; (b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; (c) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (d) impede or redirect flood flows.

Support for these environmental impact conclusions are fully discussed in Section 4.8, Hydrology and Water Quality of the Final EIR. (Final EIR pp. 4.8-43 – 4.8-66.)

Mitigation Measures. Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts related to groundwater supplies and alterations to existing drainage patterns were developed for the Project and are listed below.

MM HYD-1: Ammonia Monitoring (Applies to Beltz 12 Aquifer Storage and Recovery [ASR] Facility). Consistent with groundwater monitoring completed for the Beltz 12 ASR Pilot Test Project (Pueblo Water Resources 2020), monitoring for ammonia shall be completed in the Beltz 12 well and the Soquel Creek Water District (SqCWD) O'Neill Ranch well during future Beltz 12 ASR pilot tests and ASR operations. The City shall establish ammonia concentrations beginning at least 12 months prior to commencement of Beltz 12 ASR operations, by conducting quarterly sampling, and obtaining similar sampling data for the SqCWD's O'Neill Ranch well, as provided by SqCWD. During the first year of Beltz 12 ASR injection and extraction operations, the City shall conduct monthly monitoring of ammonia concentrations in groundwater. Following the first year of operations, monitoring of ammonia shall be quarterly. In the event that over a two-year sampling period after initiation of Beltz 12 ASR operations, City ammonia monitoring data, in combination with ammonia monitoring data from the SqCWD O'Neill Ranch well, indicates Beltz 12 ASR operations are not resulting in changes to ammonia concentrations that could adversely affect operations at the SqCWD's O'Neill Ranch well, ammonia sampling shall be discontinued in the Beltz 12 ASR well.

The City ammonia monitoring data, in combination with ammonia monitoring data from the SqCWD O'Neill Ranch well, shall be evaluated to determine if Beltz 12 ASR operations are resulting in changes to ammonia concentrations that could adversely affect operations at the SqCWD's O'Neill Ranch well. If ammonia levels increase above baseline, the City and SqCWD shall cooperatively develop, fund, and implement a hydrogeologic investigation to evaluate the source(s) and distribution of ammonia in the aquifer system and potential causes of the observed ammonia increases. The investigation shall include, if applicable, installation of a monitoring well cluster between the Beltz 12 ASR well and the O'Neill Ranch well to evaluate the gap in data between these two wells.

To the extent that the results of the hydrogeologic investigation indicate that Beltz 12 ASR operations are resulting in ammonia concentrations above baseline concentrations, ASR injection and/or extraction operations shall be modified until ammonia concentrations decrease to baseline (or lower) levels, as demonstrated with monthly (during the first year of operations) or quarterly monitoring data from the Beltz 12 ASR well, and the SqCWD's O'Neill Ranch well, as provided by SqCWD. The Beltz 12 ASR modifications shall be proportional to the degree of impact being caused by Beltz 12 ASR operations (versus O'Neill Ranch well operations). Quarterly monitoring reports shall be prepared to document monitoring results.

Additionally, during the next Mid-County Groundwater Sustainability Plan update process, the City shall work with other member agencies of the Mid-County Groundwater Sustainability Agency to address ammonia as a groundwater quality issue in the basin if warranted based on the outcome of monitoring and any hydrogeologic investigation performed, and incorporate the City's Beltz 12 ASR well and the SqCWD's O'Neill Ranch well into the plan update to allow for the ongoing assessment and monitoring of ammonia concentrations.

MM HYD-2: Groundwater Level Monitoring (Applies to Beltz 12 Aquifer Storage and Recovery [ASR] Facility). Consistent with restrictive effects criteria established in private well baseline assessment reports (Hydro Metrics 2015a, 2015b, 2015c, 2015d, 2015e), the private well monitoring program currently in place under the April 2015 cooperative monitoring/adaptive groundwater management agreement (cooperative groundwater management agreement) and the April 2015 stream flow and well monitoring agreement, between the City of Santa Cruz (City) and Soquel Creek Water District (SqCWD), shall be continued with respect to groundwater levels, and the City will contact and enroll any additional residents with private domestic wells within a 3,300-foot radius of the City's Beltz 12 ASR facility who want to join the program. Consistent with the existing cooperative groundwater management agreement, the City and SqCWD shall share monitoring and mitigating for impacts to third parties, such as private wells found in the area of overlap of 3,300-foot radius around SqCWD's O'Neill Ranch Well and 3,300-foot radius around the City's Beltz 12 well. Monitoring expenses shall be shared equally while mitigation expenses shall be shared proportionately. If private well monitoring reveals impacts to private wells due to the presence of restrictive effects, pump tests shall be conducted to determine proportionality. Monitoring and mitigation of impacts to private wells within a 3,300-foot radius of either the O'Neill Ranch well or Beltz 12 well, but not located in the overlap area, shall be the sole responsibility of the agency whose 3,300-foot radius encompasses the private well.

If demonstrated restrictive effects to nearby private domestic wells occur during ASR pilot testing or operations, the City and SqCWD shall cooperatively develop, fund, and implement a hydrogeologic investigation to evaluate the potential causes of the observed restricted effects in private wells. To the extent that the results of the hydrogeologic investigation indicate that Beltz 12 ASR operations are resulting in restrictive effects, ASR injection and/or extraction operations shall be modified until the corresponding undesirable effects are eliminated, as demonstrated with biannual monitoring data from the private wells. The Beltz 12 ASR modifications shall be proportional to the degree of impact being caused by Beltz 12 ASR operations (versus O'Neill Ranch well operations). Biannual and annual monitoring reports shall be prepared to document monitoring results. In the event that restrictive effects to nearby private domestic wells does not occur during ASR pilot testing or operations, for a period of five years after initiation of Beltz 12 ASR operations, the City's participation in the private well monitoring program will be discontinued. However, the five-year monitoring period will be extended, if necessary, to account for multi-year drought conditions. The determination as to whether to extend the monitoring period will be based on an evaluation of the groundwater monitoring data collected over the five-year monitoring period, in combination with a review of any drought conditions present during that period. Results of this evaluation will be shared with SqCWD and any associated comments by SqCWD will be considered in determining the need for extension of the monitoring program beyond the five-year period.

Additionally, during the next Mid-County Groundwater Sustainability Plan (GSP) update process, the City shall work with other member agencies of the Mid-County Groundwater Sustainability Agency to update information in the GSP related to private wells and the ongoing assessment and monitoring of groundwater levels at these wells, if warranted based on the outcome of monitoring and any hydrogeologic investigation performed.

MM HYD-3: **Drainage Improvements (Applies to City of Santa Cruz/Scotts Valley Water District Intertie Pump Station and City of Santa Cruz/Soquel Creek Water District/Center Water District New Intertie Pump Stations).** Final pump station designs shall include Low Impact Development features, which would: (1) reduce post-construction stormwater runoff rates to be less than or equal to existing conditions, for a 24-hour, 25-year storm event; and (2) minimize off-site runoff of stormwater pollutants through filtration features, such oil-water separators, vegetated swales, and bioretention basins. These features shall be inspected monthly to ensure functionality.

Finding. The City Council finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant groundwater supplies and drainage impacts of the Project to less-than-significant levels. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that avoid the potentially significant groundwater and drainage impacts of the Project identified in the EIR.

7.3.6 Land Use, Agriculture, Forestry, and Mineral Resources

Potential Effects. Potentially significant effects were identified for the Project in the following category for land use, agriculture, forestry, and mineral resources:

- **Impact LU-2: Conversion or Loss of Farmland or Forest Land and Conflicts with Zoning for Agricultural Land, Forest Land, or Timberland.** Construction of the Project could convert prime, unique, or important agricultural land to non-agricultural use, convert forest land to non-forest land, conflict with existing zoning for agricultural or timber production uses or conflict with a Williamson Act contract.

Support for this environmental impact conclusion is fully discussed in Section 4.9, Land Use, Agriculture, Forestry and Mineral Resources of the Final EIR. (Final EIR pp. 4.9-29 – 4.9-32.)

Mitigation Measures. Consistent with CEQA Guidelines Section 15126.4(a)(1), a feasible measure that can minimize significant adverse impacts to agriculture and forestry resources was developed for the Project and is listed below.

MM LU-1: **Avoidance of Agricultural and Forest Lands (Applies to New Aquifer Storage and Recovery [ASR] Facilities).** The following measures shall be implemented to avoid conversion of Farmland or forest/timberland, and/or conflicts with agricultural zoning in the coastal zone:

a. Locate new ASR facilities on sites that do not contain Farmland (i.e., prime, unique, or important farmland under the State Farmland Mapping and Monitoring Program) unless site-specific application of the Land Evaluation and Site Assessment model determines that the site would not result in a significant impact to agricultural lands.

b. Locate new ASR facilities on sites that do not contain forest/timber land.

c. Locate new ASR facilities on sites that are not zoned for agricultural uses in the coastal zone.

Finding. The City Council finds that the above mitigation measure is feasible, is adopted, and will reduce the potentially significant agriculture and forestry impacts of the Project to less-than-significant levels. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that avoid the potentially significant agricultural and forest land impacts of the Project identified in the EIR.

7.3.7 Noise

Potential Effects. Potentially significant effects were identified for the Project in the following categories for noise:

- **Impact NOI-1: Substantial Permanent Increase in Ambient Noise Levels.** Operation of the Project will result in generation of a substantial permanent increase in ambient noise levels during long-term operation in the vicinity of one of the programmatic infrastructure components.
- **Impact NOI-3: Groundborne Vibration.** Construction of the Project will result in the potential generation of excessive groundborne vibration or groundborne noise levels.

Support for these environmental impact conclusions are fully discussed in Section 4.10, Noise, of the Final EIR. (Final EIR pp. 4.10-24 – 4.10-28 and 4.10-34 – 4.10-36).

Mitigation Measures. Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts related to a substantial temporary increase in ambient noise levels and groundborne vibration were developed for the Project and are listed below.

MM NOI-1: **Operational Noise Levels (Applies to Coast Pump Station Improvements).** The Project shall implement the following measures to reduce the potential for exposure of nearby noise-sensitive receptors to excessive noise levels:

- Where feasible, a primary element for the selection of proposed noise-generating equipment (e.g., pumps, motors, transformers, etc.) shall be equipment that inherently does not generate an increase of +3 dB in the ambient noise levels where the existing ambient is below 60 dBA L_{dn}, or a +5 dB increase in the ambient noise levels where the existing ambient is above 65 dBA L_{dn}, as measured at the nearest sensitive receptor.
- Where this is not feasible, noise-generating equipment shall be located within a full or partial noise reduction enclosure. The effectiveness of the equipment enclosure to reduce noise level exposure to within the applicable noise level threshold shall be demonstrated through submittal of a focused acoustical assessment.

MM NOI-3: **Construction Vibration (Applies to New Aquifer Storage and Recovery Facilities and all Intertie Improvements).** The Project shall implement the following measures to reduce the potential for structural damage from groundborne noise and vibration:

- Vibratory rollers or compactors shall not be used within 15 feet of sensitive receptors.
- Heavy equipment required to operate within 9 feet of sensitive receptors shall be limited to rubber-tired equipment.

Finding. The City Council finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant noise impacts of the Project to less-than-significant levels. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that avoid potentially significant noise impacts of the Project identified in the EIR.

7.4 Significant Unavoidable Impacts

This section identifies the significant unavoidable impacts that require a statement of overriding considerations to be issued by the City Council, pursuant to Public Resources Code Section 21081, subdivision (b), and CEQA Guidelines Section 15093 if the Project is approved. Based on the analysis contained in the Final EIR, the following impacts have been determined to be significant and unavoidable:

7.4.1 Noise

Potential Effects. Potentially significant effects were identified for the Project in the following category for noise:

- **Impact NOI-2: Substantial Increase in Ambient Noise Levels in Excess of Standards.** Construction of the Project will result in generation of a substantial temporary increase in ambient noise levels in the vicinity of some project and programmatic infrastructure components in excess of applicable standards established in local general plans or noise ordinances. (Significant and Unavoidable)

Support for this environmental impact conclusion is fully discussed in Section 4.10, Noise, of the Final EIR. (Final EIR pp. 4.10-27 – 4.10-34).

Mitigation Measures. Implementation of Mitigations NOI-2 identified in the EIR will reduce the impact on noise, but not to a less-than-significant level; therefore, the impact will remain significant and unavoidable.

MM NOI-2: **Construction Noise (Applies to all Infrastructure Components).** The Project shall implement the following measures related to construction noise:

- Restrict construction activities and use of equipment that have the potential to generate significant noise levels (e.g., use of concrete saw, mounted impact hammer, jackhammer, rock drill, etc.) to between the hours of 8:00 a.m. and 5:00 p.m., unless specifically identified work outside these hours is authorized by the City's Water Director as necessary to allow for safe access to a construction site, safe construction operations, efficient construction progress, and/or to account for prior construction delays outside of a contractor's control (e.g., weather delays).
- Construction activities requiring operations continuing outside of the standard work hours of 8:00 a.m. and 5:00 p.m. (e.g., borehole drilling operations) shall locate noise generating equipment as far as possible from noise-sensitive receptors, and/or within an acoustically rated enclosure (meeting or exceeding Sound Transmission Class [STC] 27), shroud or temporary barrier as needed to prevent the propagation of sound into the surrounding areas in excess of the 60 dBA nighttime (10:00 p.m. to 8:00 a.m.) and 75 dBA daytime (8:00 a.m. to 10:00 p.m.) criteria at the nearest sensitive receptor. Noisy construction equipment, such as temporary pumps that are not submerged, aboveground conveyor systems, and impact tools will likely require location within such an acoustically rated enclosure, shroud or barrier to meet these above criteria. Impact tools, in particular, shall have the working area/impact area shrouded or shielded whenever possible, with intake and exhaust ports on power equipment muffled or suppressed. Impact tools may necessitate the use of temporary or portable, application-specific noise shields or barriers to achieve compliance.

- Portable and stationary site support equipment (e.g., generators, compressors, and cement mixers) shall be located as far as possible from nearby noise-sensitive receptors.
- Construction equipment and vehicles shall be fitted with efficient, well-maintained mufflers that reduce equipment noise emission levels at the project site. Internal-combustion-powered equipment shall be equipped with properly operating noise suppression devices (e.g., mufflers, silencers, wraps) that meet or exceed the manufacturer's specifications. Mufflers and noise suppressors shall be properly maintained and tuned to ensure proper fit, function, and minimization of noise.
- Construction equipment shall not be idled for extended periods of time (i.e., 5 minutes or longer) in the immediate vicinity of noise-sensitive receptors.

Finding. The City Council finds that the above mitigation measures are feasible, are adopted, and will substantially lessen, but not avoid, the significant noise impacts of the Project. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that substantially lessen, but do not avoid the significant noise impacts of the Project identified in the EIR. In other words, the significant impact of the Project related to construction noise cannot be mitigated to a less-than-significant level despite the imposition of Mitigations NOI-2, which has been required or incorporated into the Project. However, this impact is temporary, and the effects of this impact will only be present during construction activities associated specifically with new ASR facilities and the Beltz 9 ASR facility well drilling. The City hereby directs that this mitigation measure be adopted. Specific economic, legal, social, technological, or other considerations make infeasible any additional mitigation measures, or the project alternatives identified in the EIR that will avoid or reduce the significant impact related to construction noise to a less-than-significant level. See Section 8, Alternatives, of these findings and Section 9, Statement of Overriding Considerations, of this document for additional information.

7.4.2 Utilities and Energy

Potential Effects. Potentially significant effects were identified for the Project in the following category for utilities:

- **Impact UTL-1: New or Expanded Facilities.** Construction and operation of the Project will result in new or expanded water facilities that will result in significant impacts, but will not require or result in new or expanded wastewater treatment, storm drainage, electric power, natural gas, or telecommunications facilities or a new sewer trunk line.

Support for this environmental impact conclusion is fully discussed in Section 4.13, Utilities and Energy, of the Final EIR. The only aspect of this Impact (UTL-1) that is significant and unavoidable is associated with the construction of new ASR facilities, which, as indicated above in the discussion of Impact NOI-2, will result in significant and unavoidable temporary noise impacts from well drilling operations, which must be conducted at night. All other aspects of Impact UTL-1 are either less than significant without mitigation or less than significant with mitigation. (Final EIR pp. 4.13-26 – 4.13-29.)

Mitigation Measures. Implementation of the mitigation measures identified in other technical sections of EIR Chapter 4, Environmental Setting, Impacts, and Mitigation Measures, will reduce potentially significant impacts of the Project related to new or expanded water facilities identified in Impact UTL-1, to a less-than-significant level for most project and programmatic infrastructure components. However, as indicated in Impact UTL-1, the

new ASR facilities and the Beltz 9 ASR facility will have significant and unavoidable temporary construction noise impacts due to well drilling operations.

Finding. The City Council finds that the above-referenced mitigation measures are feasible, are adopted, and will substantially lessen, but not avoid, the significant utility impacts of the Project related to new or expanded water facilities. Accordingly, the City Council finds that, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Project that substantially lessen, but do not avoid the significant utility impacts of the Project related to new or expanded water facilities identified in the EIR. In other words, the significant impact of the Project related to new or expanded water facilities cannot be mitigated to a less-than-significant level despite the imposition of mitigation measures identified in other technical sections of EIR Chapter 4, which have been required or incorporated into the Project. However, this impact is temporary, and the effects of this impact will only be present during construction activities associated specifically with new ASR facilities and the Beltz 9 ASR facility well drilling. The City hereby directs that these mitigation measures be adopted, as previously indicated. Specific economic, legal, social, technological, or other considerations make infeasible any additional mitigation measures, or the project alternatives identified in the EIR that will avoid or reduce the significant impact related to new or expanded water facilities to a less-than-significant level. See Section 8, Alternatives, of these findings and Section 9, Statement of Overriding Considerations, of this document for additional information.

INTENTIONALLY LEFT BLANK

8 Project Alternatives

8.1 Basis for Alternatives-Feasibility Analysis

As noted earlier, Public Resources Code Section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA. Although an EIR must evaluate this range of *potentially* feasible alternatives, an agency decision-making body (here, the City Council) may ultimately conclude that a potentially feasible alternative is actually infeasible. (*Cal. Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 981, 999.) As explained earlier, grounds for such a conclusion might be the failure of an alternative to fully satisfy project objectives deemed to be important by decision-makers, or the fact that an alternative fails to promote policy objectives of concern to such decision-makers. (*Id.* at pp. 992, 1000–1003; see also *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 ["'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors"]; *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509 [upholding CEQA findings rejecting alternatives in reliance on project objectives]; *Citizens for Open Government v. City of Lodi* (2012) 296 Cal.App.4th 296, 314-315 [court upholds agency action where alternative selected "entirely fulfill" a particular project objective and "would be 'substantially less effective' in meeting" the lead agency's "goals"]; and *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166 (Bay-Delta) ["feasibility is strongly linked to achievement of each of the primary program objectives"; "a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal"].) Alternatives may also be determined to be economically infeasible and can be rejected on that ground. (*The Flanders Foundation v. City of Carmel-by-the-Sea* (2012) 202 Cal.App.4th 603, 621–623.) Thus, even if a project alternative will avoid or substantially lessen any of the significant environmental effects of a Project as mitigated, the decision-makers may reject the alternative as infeasible for such reasons.

Under CEQA Guidelines Section 15126.6, the alternatives to be discussed in detail in an EIR should be able to "feasibly attain most of the basic objectives of the project[.]" For this reason, the objectives described above in Section 3.3 of these findings provided the framework for defining possible alternatives. Based on the objectives, the City developed three alternatives in addition to the No Project Alternative that were addressed in detail in the Final EIR.

Per CEQA Guidelines Section 15126.6 and the project's objectives, the following alternatives to the Project were identified:

- No Project Alternative – Required by CEQA
- Alternative 1 – Agreed Flows Only Without Other Project Components
- Alternative 2 – All Project Components Except Place of Use Expansion
- Alternative 3 – All Project Components Except Aquifer Storage and Recovery

The City Council finds that a good faith effort was made to evaluate a range of potentially feasible alternatives in the EIR that are reasonable alternatives to the Project and could feasibly obtain most of the basic objectives of the Project, even when the alternatives might impede the attainment of the Project's objectives and might be more costly.

8.1.1 No Project Alternative

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate the specific alternative of "no project" along with its impact. As stated in this section of the CEQA Guidelines, the purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the Project with the impacts of not approving the Project. CEQA Guidelines Section 15126.6(e) generally provides that "[t]he 'no project' analysis shall discuss the existing conditions at the time the notice of preparation 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." Section 15126(e)(3)(B) provides that, where, as here, a Project is something "other than a land use or regulatory plan," the "No Project" Alternative is "the circumstance under which the project does not proceed." "[W]here failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (CEQA Guidelines Section 15126.6[e][3][B]).

Under the No Project Alternative, all conditions are generally based on those existing in 2018 and include existing water rights and existing infrastructure capacities. Unlike the 2018 baseline, however, this alternative cannot rely on the approval of a subsequent interim agreement related to bypass flows, such as is currently in place with CDFW. Additionally, none of the project and programmatic components of the Project would be implemented, including: (1) water rights modifications, including modifications related to POU, method of diversion, points of diversion and rediversion, underground storage and purpose of use, extension of time, and stream bypass requirements for fish habitat (Agreed Flows); (2) water supply augmentation components, including ASR (new ASR facilities at unidentified locations and Beltz ASR facilities at the existing Beltz well facilities), and water transfers and exchanges, and associated intertie improvements; and (3) surface water diversion improvements, including the Felton Diversion fish passage improvements and the Tait Diversion and Coast Pump Station improvements.

The Agreed Flows would not be implemented under the No Project Alternative. While they are currently expected to be required as part of the pending ASHCP and related incidental take permits, which is anticipated to be approved by late 2022 or early 2023, the ASHCP and incidental take permits would not be able to be implemented or committed to under the No Project Alternative. This is because the approval of the Project is required to ensure the Agreed Flows would be practicable and such approval was a condition precedent for the finalization of the ASHCP and submittal of applications for incidental take permits. Additionally, as noted above, this alternative cannot rely on the approval of a subsequent interim agreement related to bypass flows, such as is currently in place with CDFW, as continuation of the interim agreement related to bypass flows would not be practicable and such agreement would not be renewed. While the final Operations and Maintenance HCP (OMHCP) developed with the USFWS and associated incidental take permit includes minimum bypass flows, these flows do not encompass all life stages and therefore are not as protective as the interim bypass flows and the Agreed Flows. As such, delivery of water to customers under the No Project Alternative could lead to conflicts with species protection goals and could lead to enforcement and/or litigation regarding the scope of requirements under the FESA and CESA to avoid take of federally and state-listed species. Additionally, the fish

screening at the Felton Diversion and Tait Diversion and fish passage at the Felton Diversion would not be improved under the No Project Alternative.

Under the No Project Alternative, the existing significant barrier to implementing more conjunctive use of the City's sources of supply would remain in place without the proposed water rights modifications related to expansion of POUs, underground storage and points of rediversion. Likewise, the barriers to improving conjunctive use of the region's resources with adjoining water agencies and within the region's groundwater basins would also remain. Specifically, ASR and water transfers and exchanges and associated intertie improvements could not be implemented under the No Project Alternative. Additionally, without the other water rights modifications (relating to method of diversion, points of diversion, and extension of time), under the No Project Alternative, the operational flexibility anticipated by the Project would not be provided, such as the option of diverting water under the existing Felton Diversion water rights at either the Felton Diversion or downstream at the Tait Diversion. Therefore, the No Project Alternative would not provide the ability to divert water under the Felton Permits with or without activation of the Felton Diversion inflatable dam. The No Project Alternative therefore would not enhance the City's ability to fully utilize the 3,000 acre-feet per year diversion provided under the Felton Permits, and would not allow water to remain in the San Lorenzo River longer, bypassing the Felton Diversion before being diverted at the Tait Diversion and therefore would not provide associated fisheries benefits. Further, under the No Project Alternative, no extension of time would be provided for the City to put all of its 3,000 acre-feet per year entitlement to divert water at the Felton Diversion to full beneficial use. The lack of such an extension could result in the City losing some of its authorized diversion amount under the Felton Permits. This outcome would limit the City's ability to use the Felton Permits for their original function of augmenting Loch Lomond Reservoir storage through the new technology of ASR. The City projects that it will need that supplemental storage in the future as it implements the Agreed Flows, which will constrain its instantaneous surface-water supplies. Among other things, while the City's water conservation program has been very successful at constraining demand and therefore making supplemental storage less necessary to date, one result of that program has been that demand within the City's service area is sufficiently hardened that further conservation efforts are unlikely to generate significantly increased yield. With the Agreed Flows' implementation, the City therefore needs the increment of supplemental storage that the Felton Permits always were intended to provide.

Given the above, the No Project Alternative would not provide for any elements of the Project that would allow the City to expand its storage capacity to deliver a safe, adequate (i.e., filling the worst-year water supply gap), reliable and environmentally sustainable water supply. As a result, the No Project Alternative would require the City to prioritize and immediately pursue Water Supply Augmentation Strategy Element 3 options (i.e., recycled water or seawater desalination), which are currently considered as back-up water sources, if passive and active recharge solutions identified in Elements 1 and 2 and included in the Project are not sufficient. (Final EIR pp. 8-15 – 8-17.)

Environmental Effects. Under the No Project Alternative, the Project would not be implemented, and the project and programmatic infrastructure components would not be constructed. Therefore, the potentially significant impacts associated with constructing and/or operating new or upgraded infrastructure facilities identified in this EIR would not occur impacts related to: biological resources, cultural resources, seismic hazards, paleontological resources, hazardous materials release, conflict with a groundwater plan, alteration to drainage patterns, conversion of farmland or forest land, permanent increase in noise, permanent or temporary increase in noise in excess of standards, vibration, and new or expanded utilities. In particular, the significant unavoidable construction noise impact due to well drilling activities for the new ASR facilities and the Beltz 9 ASR facility would not occur with the No Project Alternative.

However, the No Project Alternative would also not realize the benefits of the Project to biological resources due to improved conditions for fish in the San Lorenzo River, Newell Creek and the North Coast streams with the implementation of the Agreed Flows as part of the Project, and improved fish passage and/or fish screening at the Felton Diversion and Tait Diversion. Specifically, the No Project Alternative would likely result in a significant and unavoidable impact for fish as the Agreed Flows would not be implemented and the interim bypass flow agreement with CDFW would not be renewed. The No Project Alternative would also not realize the benefits of the Project to recreational uses due to increased lake levels at Loch Lomond Reservoir. In contrast to the beneficial impact of the Project, the No Project Alternative impact on recreational uses at Loch Lomond would be potentially significant and unavoidable until an alternative source of water supply is developed (i.e., recycled water or seawater desalination). As the No Project Alternative would not include ASR or water transfers, it would not have the potential to contribute sustainability benefits in the Santa Margarita Groundwater Basin and the Santa Cruz Mid-County Groundwater Basin, whereas the Project would have such potential. Lastly, the No Project Alternative would not provide additional water supply to meet projected demand in the areas served by the City during currently constrained dry periods. In contrast to the beneficial impact of the Project, the No Project Alternative water supply impact would be potentially significant and unavoidable until an alternative source of water supply is developed.

Given that the City's water supply objectives would not be met with the No Project Alternative, the City's likely prioritization and pursuit of recycled water or seawater desalination under Water Supply Augmentation Strategy Element 3 could result in some additional impacts that would not result from the Project. For example, if seawater desalination were selected, marine biological and hydrological impacts offshore in the Monterey Bay National Marine Sanctuary would likely result, as documented in the Proposed scwd^2 Regional Seawater Desalination Project Draft Environmental Impact Report (URS 2013). The impacts of various recycled water options would be evaluated if and when one or more of the recycled water options are pursued by the City as part of Element 3 of the Water Supply Augmentation Strategy. (Final EIR pp. 8-17 – 8-18.)

Finding. The City Council rejects the No Project Alternative as infeasible, despite the fact that it would avoid the two significant and unavoidable effects of the Project (Impact NOI 2: Substantial Increase in Ambient Noise Levels in Excess of Standards; and Impact UTL-1: New or Expanded Facilities), both of which involve temporary construction-related noise. Measured against the Project, the No Project Alternative represents an undesirable policy outcome that would not meet any of the identified project objectives. In particular, the No Project Alternative would not improve the operational flexibility of the City's system, support the implementation of the City's Water Supply Augmentation Strategy Element 1 (passive recharge of regional aquifers via water transfers) and Element 2 (active recharge of regional aquifers via ASR) to deliver a safe, adequate (i.e., filling the worst-year water supply gap), reliable and environmentally sustainable water supply, and meet state policy favoring integrated regional water management (Objectives #1, #3, #7, #8, #11, and #12). The water supply gap would remain under the No Project Alternative and the City would not be able to contribute to regional conjunctive use and groundwater basin recovery in both the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin (Objectives #4, #6 and #11). Additionally, the No Project alternative would not meet the objectives related to providing improved/protective conditions for fisheries and would not address operational deficiencies at the Tait Diversion and Coast Pump Station (Objectives #2, #9 and #10). (Final EIR p. 8-18.)

In addition, the City Council agrees with the authors of the EIR that the Project is environmentally superior to the No Project Alternative, when the differing environmental impacts are given what the City Council considers to be their proper weight. Compared with all of the alternatives included in the EIR, the Project has the greatest environmental benefit to regional groundwater conditions. In addition, the Project would avoid the potentially significant and unavoidable water supply impact of all of the alternatives and the potentially significant and unavoidable recreation impact of the No Project Alternative, and would reduce all impacts to less-than-significant

levels with identified mitigation measures, with the exception of temporary construction noise impacts from ASR well-drilling activities. In the City Council's policy judgment, the groundwater benefits of the Project outweigh in importance the limited significant and unavoidable noise impacts associated with temporary ASR well-drilling activities.

8.1.2 Alternative 1: Agreed Flows Only Without Other Project Components

Alternative 1 consists of implementation of the Agreed Flows, consistent with the Project. None of the other components of the Project, as summarized above in the No Project Alternative, would be implemented under Alternative 1. All other conditions are generally based on those existing in 2018 and include existing water rights and existing infrastructure capacities, with the exception that all the City's cumulative infrastructure improvements are also included in the modeling for this Alternative, similar to the Project. These include improvements related to the Newell Creek Pipeline and the Graham Hill Water Treatment Plant.

As for the No Project Alternative, Alternative 1 would not provide for any elements of the Project that would allow the City to expand its storage capacity to deliver a safe, adequate (i.e., filling the worst-year water supply gap), reliable and environmentally sustainable water supply. As a result, Alternative 1 would require the City to prioritize and immediately pursue Water Supply Augmentation Strategy Element 3 options (recycled water or seawater desalination), which are currently considered as back-up water sources, if passive and active recharge solutions identified in Elements 1 and 2 and included in the Project are not sufficient.

While Alternative 1 would not meet the project objectives, the State Water Resources Control Board, a responsible agency, requested that such an alternative be evaluated in this EIR, during the scoping period and therefore it is included in this analysis. CEQA encourages lead agencies to include in their Draft EIRs information specifically requested by responsible agencies (CEQA Guidelines Sections 15082(b) and 15125(d)(1)(C).) Alternative 1 will be helpful to the State Water Resources Control Board as it assesses the City's water rights petitions, and should give that agency a better understanding of the water supply benefits and environmental benefits of the components of the Project not included within Alternative 1. (Final EIR pp. 8-18 through 8-19.)

Environmental Effects. Alternative 1 would have nearly identical long-term operational effects on habitat conditions for steelhead and coho as the Project and involve an improvement of habitat conditions for these species relative to baseline conditions. However, the improvement in habitat effects in Newell Creek downstream of Newell Creek Dam would be less under Alternative 1 than under the Project. As a result of less frequent reservoir spills under Alternative 1, habitat values in Newell Creek would show less improvement over the baseline compared to the Project. Alternative 1 would have the same negative effect as the Project (relative to the baseline) to rearing habitat index in wet years for coho in Laguna Creek. Additionally, there would be a decline in the adult migration index for coho downstream of the Tait Diversion in critically dry years that would not result from the Project. Similar to the Project, the above habitat effects would not likely be biologically meaningful and would not result in a significant impact under CEQA.

While Alternative 1 would realize some of the benefits of the Project to biological resources due to improved conditions for fish in the San Lorenzo River, Newell Creek and the North Coast streams with the implementation of the Agreed Flows, this Alternative would not result in improved fish passage and/or fish screening at the Felton Diversion and Tait Diversion. Additionally, given that this Alternative would not result in improved fish passage and/or fish screening at these diversions and would not result in intertie improvements, no potentially significant

construction impacts on special-status fish associated with these improvements would result and the mitigation measures identified for the Project to address construction impacts would not be required.

Other long-term operational impacts of Alternative 1 on other special-status species, riparian and sensitive habitat, jurisdictional aquatic resources, and wildlife movement are also expected to be less than significant, similar to the Project. Additionally, no potentially significant impacts would result from Alternative 1 associated with constructing new or upgraded infrastructure components, including those related to other special-status species, riparian and sensitive habitat, jurisdictional aquatic resources and the biological resource mitigation measures identified for the Project would not be required.

As the Project's infrastructure components would not be constructed or operated under Alternative 1, the other potentially significant impacts associated with constructing and/or operating new or upgraded infrastructure facilities identified in this EIR would not occur, including those related to cultural resources, seismic hazards, paleontological resources, hazardous materials release, conflict with a groundwater plan, alteration to drainage patterns, conversion of farmland or forest land, permanent increase in noise, permanent or temporary increase in noise in excess of standards, vibration, and new or expanded utilities. In particular, the significant unavoidable construction noise impact due to well drilling activities for the new ASR facilities and the Beltz 9 ASR facility would not occur with the Alternative 1.

However, Alternative 1 would not realize the benefits of the Project to recreational uses due to increased lake levels at Loch Lomond Reservoir. As compared to the beneficial impact of the Project, the impact of Alternative 1 on recreational uses at Loch Lomond Reservoir would be potentially significant and unavoidable until an alternative source of water supply is developed (i.e., recycled water or seawater desalination). As Alternative 1 would not include ASR or water transfers, it would not have the potential to contribute sustainability benefits in the Santa Margarita Groundwater Basin and the Santa Cruz Mid-County Groundwater Basin, whereas the Project would have such potential. Lastly, Alternative 1 would not provide additional water supply to meet projected demand in the areas served by the City during currently constrained dry periods. In contrast to the beneficial impact of the Project, the Alternative 1 water supply impact would be potentially significant and unavoidable until an alternative source of water supply is developed. (Final EIR pp. 8-19 – 8-21.)

Finding. The City Council rejects Alternative 1 as infeasible, despite the fact that it would avoid the two significant and unavoidable effects of the Project (Impact NOI 2: Substantial Increase in Ambient Noise Levels in Excess of Standards; and Impact UTL-1: New or Expanded Facilities), both of which involve temporary construction-related noise. Measured against the Project, Alternative 1 represents an undesirable policy outcome that would not meet what the City Council, in its legislative capacity, considers to be important project objectives. While Alternative 1 would technically meet the project objective to provide flow conditions that are protective of coho and steelhead within all streams from which the City diverts water (Agreed Flows) (Objective #2), it is possible that, without the other elements of the Project, the City would not be able to comply with the Agreed Flows at certain times and therefore Alternative 1 would only moderately meet this objective. Under Alternative 1, the City would have to rely on surface water sources in Loch Lomond Reservoir more heavily, as compared to the Project.

Alternative 1 would not meet any of the other identified project objectives. In particular, the Alternative 1 would not improve the operational flexibility of the City's system, support the implementation of the City's Water Supply Augmentation Strategy Element 1 (passive recharge of regional aquifers via water transfers) and Element 2 (active recharge of regional aquifers via ASR) to deliver a safe, adequate (i.e., filling the worst-year water supply gap), reliable and environmentally sustainable water supply, and meet state policy favoring integrated regional water management (Objectives #1, #3, #7, #8, #11 and #12). The water supply gap would remain and would likely

increase under Alternative 1 and the City would not be able to contribute to regional conjunctive use and groundwater basin recovery in both the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin (Objectives #4, #6 and #11). Alternative 1 would also not improve fish screening at the Felton Diversion and Tait Diversion and improve fish passage at the Felton Diversion or address operational deficits at the Tait Diversion and Coast Pump Station (Objectives #9 and #10). (Final EIR p. 8-22.)

In addition, the City Council agrees with the authors of the EIR that the Project is environmentally superior to Alternative 1, when the differing environmental impacts are given what the City Council considers to be their proper weight. Compared with all of the alternatives included in the EIR, the Project has the greatest environmental benefit to regional groundwater conditions. In addition, the Project would avoid the potentially significant and unavoidable water supply impact of all of the alternatives and the potentially significant and unavoidable recreation impact of Alternative 1, and would reduce all impacts to less-than-significant levels with identified mitigation measures, with the exception of temporary construction noise impacts from ASR well-drilling activities. In the City Council's policy judgment, the groundwater benefits of the Project outweigh in importance the limited significant and unavoidable noise impacts associated with temporary ASR well-drilling activities.

8.1.3 Alternative 2: All Project Components Except Place of Use Expansion

Alternative 2 includes most components of the Project, except there would be no place of use expansion focused on expanding the City's groundwater-storage capacity through a larger number of ASR sites, and on supporting regional water supply reliability in neighboring districts and groundwater basin. The places of use for the City's water rights would still be refined to ensure those rights have consistent POUs.[6] Alternative 2 would not include water transfers to neighboring water agencies and ASR would be possible only within the areas served by the City. Therefore, Alternative 2 would include Beltz ASR facilities and potentially new ASR facilities within the areas served by the City. Given the limited area to implement ASR, the modeling considers a reduced injection and extraction capacity, as described in more detail in EIR Appendix D. All other modeling conditions for Alternative 2 are consistent with the Project. (Final EIR p. 8-22.)

Environmental Effects. Alternative 2 would have nearly identical long-term operational effects on habitat conditions for steelhead and coho as the Project and involve an improvement of habitat conditions for these species relative to baseline conditions. Alternative 2 would have the same negative effect as the Project (relative to the baseline) to rearing habitat index in wet years for coho in Laguna Creek. Additionally, there would be a decline in the adult migration index for coho downstream of the Tait Diversion in critically dry years that would not result from the Project. Similar to the Project, the above habitat effects would not likely be biologically meaningful and would not result in a significant impact under CEQA.

Alternative 2 would realize some of the benefits of the Project to biological resources due to improved conditions for fish in the San Lorenzo River, Newell Creek and the North Coast streams with the implementation of the Agreed Flows. This Alternative would also result in improved fish passage and/or fish screening at the Felton Diversion and Tait Diversion during operations. As Alternative 2 would also include the Tait Diversion and Coast Pump Station

[6] The Newell Creek License (License No 9847) still would be inconsistent because its POU includes areas in the upper San Lorenzo Valley and Scotts Valley.

improvements, it would result in similar potentially significant construction impacts on special-status fish and would require the same mitigation measures as the Project to reduce the impacts to less-than-significant levels.

Other long-term operational impacts of Alternative 2 on other special-status species, riparian and sensitive habitat, jurisdictional aquatic resources, and wildlife movement are also expected to be less than significant, similar to the Project. Additionally, the potentially significant impacts associated with constructing new or upgraded infrastructure components with Alternative 2 would be somewhat reduced given that intertie improvements would not be constructed and likely fewer new ASR facilities would be constructed. These somewhat reduced potentially significant impacts include those related to other special-status species, riparian and sensitive habitat, and jurisdictional aquatic resources. Alternative 2 would require the same biological resource mitigation measures identified as the Project to reduce the potentially significant impacts to less-than-significant levels.

Under Alternative 2, most other potentially significant impacts associated with constructing and/or operating new or upgraded infrastructure facilities identified in this EIR would be somewhat reduced, including those related to cultural resources, seismic hazards, paleontological resources, hazardous materials release, conflict with a groundwater plan, conversion of farmland or forest land, permanent or temporary increase in noise in excess of standards, vibration, and new or expanded facilities. However, the potentially significant impact associated with alteration of drainage patterns would be avoided with Alternative 2. Likewise, the potentially significant impact associated with conversion of farmland and forest land would be avoided with Alternative 2, as this impact would only result with new ASR facilities located in more rural areas, which would not be construction under this alternative. Alternative 2 would require most of the same mitigation measures identified as the Project to reduce most of the above potentially significant impacts to less-than-significant levels, with the exception of the mitigation measures to address Impact HYD-3 and Impact LU-2. The significant unavoidable construction noise impact due to well drilling activities for the new ASR facilities and the Beltz 9 ASR facility would be somewhat reduced given that there would be fewer new ASR facilities; however, it would remain significant and unavoidable with the Alternative 2. Most other impacts related to the Project would also be somewhat reduced under Alternative 2, given the reduced facility construction and operation.

Similar to the Project, the impact of Alternative 2 on recreational uses at Loch Lomond Reservoir would also be beneficial given that it would improve conditions for boating compared to existing conditions; however, the improvement under Alternative 2 would be less than for the Project. Alternative 2 would not include water transfers and only limited ASR and therefore would not have as much of a potential to contribute sustainability benefits in the Santa Cruz Mid-County Groundwater Basin and would not have potential to contribute such benefits in the Santa Margarita Groundwater Basin, whereas the Project would have such potential. Lastly, Alternative 2 would not provide as much additional water supply and would therefore not meet projected demand in the areas served by the City during currently constrained dry periods. In contrast to the beneficial impact of the Project, the Alternative 2 water supply impact would also likely be potentially significant and unavoidable until an alternative source of water supply is developed. (Final EIR pp. 8-23 through 8-24.)

Finding. The City Council rejects Alternative 2 as infeasible, despite the fact that the two significant and unavoidable noise-related effects of the Project (Impact NOI 2: Substantial Increase in Ambient Noise Levels in Excess of Standards; and Impact UTL-1: New or Expanded Facilities) would be somewhat reduced compared with the Project, though they would still be significant and unavoidable. Measured against the Project, Alternative 2 represents an undesirable policy outcome that would not meet what the City Council, in its legislative capacity, considers to be important project objectives either at all or to the same degree as the Project. While Alternative 2 would technically meet the project objective to provide flow conditions that are protective of coho and steelhead within all streams from which the City diverts water (Agreed Flows) (Objective #2), it is possible that without water transfers and less ASR

operations the City would not be able to comply with the Agreed Flows at certain times and therefore Alternative 2 would only moderately meet this objective. Under Alternative 2, the City would have to rely on surface water sources in Loch Lomond Reservoir more heavily, as compared to the Project.

Alternative 2 would fully meet the project objectives regarding removal of operational constraints on City water rights that do not explicitly recognize direct diversion (Objective #7), allowance for additional time for the City to fully reach beneficial use in existing Felton water-right permits (Objective #8), and improved fish passage and/or screening at the Felton and Tait Diversions and addressing operational deficiencies at the Tait Diversion and Coast Pump Station (Objectives #9 and #10). However, given that no water transfers and exchanges and intertie improvements, and fewer new ASR facilities would be implemented under Alternative 2, it would only moderately meet objectives related to: improving the operational flexibility of the City's system (Objective #1), supporting the implementation of the City's Water Supply Augmentation Strategy (Objective #3), finding more options for where and how the City can utilize its existing appropriative water rights (Objective #5), providing for underground storage of surface water via ASR in conformance with the Santa Cruz Mid-County GSP (Objective #6), implementing state policy favoring integrated regional water management (Objective #11), and considering other related actions or activities that would be foreseeable if the Project is approved (Objective #12). Additionally, Alternative 2 would not meet the objective to facilitate opportunities within the City and regionally for conjunctive use of the City's surface water and groundwater (Objective #4), given that water transfers would not be implemented under this alternative.

Given the above, Alternative 2 would not fully support the implementation of the City's Water Supply Augmentation Strategy Element 1 (passive recharge of regional aquifers via water transfers) and Element 2 (active recharge of regional aquifers via ASR) to deliver a safe, adequate (i.e., filling the worst-year water supply gap), reliable and environmentally sustainable water supply (Objective #3). Some amount of water supply gap would remain under Alternative 2 and the City would not be able to contribute as much to regional conjunctive use, as compared to the Project. While the City could somewhat contribute to groundwater basin recovery in the Santa Cruz Mid-County Groundwater Basin through some ASR operations, with no water transfers to neighboring agencies, it would not contribute to groundwater basin recovery in the Santa Margarita Groundwater Basin under this Alternative, given that new ASR facilities could not be sited outside of the areas served by the City. (Final EIR p. 8-25.)

In addition, the City Council agrees with the authors of the EIR that the Project is environmentally superior to Alternative 2, when the differing environmental impacts are given what the City Council considers to be their proper weight. Compared with all of the alternatives included in the EIR, the Project has the greatest environmental benefit to regional groundwater conditions. In addition, the Project would avoid the potentially significant and unavoidable water supply impact of all of the alternatives, and would reduce all impacts to less-than-significant levels with identified mitigation measures, with the exception of temporary construction noise impacts from ASR well-drilling activities. In the City Council's policy judgment, the groundwater benefits of the Project outweigh in importance the limited significant and unavoidable noise impacts associated with temporary ASR well-drilling activities. Importantly, these two effects would remain significant and unavoidable with Alternative 2, though somewhat reduced.

8.1.4 Alternative 3: All Project Components Except Aquifer Storage and Recovery

Alternative 3 includes most components of the Project, except there would be no ASR. Therefore, Alternative 3 would not include Beltz ASR facilities or other new ASR facilities within or beyond the areas served by the City. Alternative 3 accordingly also would not include the City obtaining the State Water Resources Control Board's

approval of the addition of underground storage supplements on any of its water-right permits or licenses. All other modeling conditions for Alternative 3 are consistent with the Project. (Final EIR pp. 8-25 through 8-24.)

Environmental Effects. Alternative 3 would have nearly identical long-term operational effects on habitat conditions for steelhead and coho as the Project and involve an improvement of habitat conditions for these species relative to baseline conditions. Alternative 3 would have the same negative effect as the Project (relative to the baseline) to rearing habitat index in wet years for coho in Laguna Creek. Additionally, there would be a decline in the adult migration index for coho downstream of the Tait Diversion in critically dry years that would not result from the Project. Similar to the Project, the above habitat effects would not likely be biologically meaningful and would not result in a significant impact under CEQA.

Alternative 3 would realize some of the benefits of the Project to biological resources due to improved conditions for fish in the San Lorenzo River, Newell Creek and the North Coast streams with the implementation of the Agreed Flows. This Alternative would also result in improved fish passage and/or fish screening at the Felton Diversion and Tait Diversion during operations. As Alternative 3 would also include the Tait Diversion and Coast Pump Station improvements, it would result in similar potentially significant construction impacts on special-status fish and would require the same mitigation measures as the Project to reduce the impacts to less-than-significant levels.

Other long-term operational impacts of Alternative 3 on other special-status species, riparian and sensitive habitat, jurisdictional aquatic resources, and wildlife movement are expected to be less than significant, similar to the Project. However, the potentially significant impacts associated with constructing new or upgraded infrastructure components with Alternative 3 would be somewhat reduced for impacts related to special-status wildlife or nesting birds. All other potentially significant impacts associated with constructing new or upgraded infrastructure components with Alternative 3 would be similar to those of the Project; Alternative 3 would require the same mitigation measures identified as the Project to reduce these potentially significant impacts to less-than-significant levels.

Under Alternative 3, most other potentially significant impacts associated with constructing and/or operating new or upgraded infrastructure facilities identified in this EIR would be somewhat reduced with this Alternative, including those related to cultural resources, paleontological resources, hazardous materials release, alteration to drainage patterns, permanent or temporary increase in noise in excess of standards, vibration, and new or expanded utilities. The potentially significant impact associated with conflict with a groundwater plan would be avoided with Alternative 3. Likewise, the potentially significant impact associated with conversion of farmland and forest land would be avoided with Alternative 3. The significant unavoidable construction noise impact due to well drilling activities for the new ASR facilities and the Beltz 9 ASR facility would also be avoided under this alternative as no well drilling for these facilities would be required under Alternative 3. Alternative 3 would require most of the same mitigation measures identified as the Project to reduce the above potentially significant impacts to less-than-significant levels, with the exception of the mitigation measures to address Impact HYD-2 and Impact LU-2. Also, potentially significant impacts related to seismic hazards would be reduced to less than significant under Alternative 3.

Similar to the Project, the impact of Alternative 3 on recreational uses at Loch Lomond Reservoir would also be beneficial given that it would improve conditions for boating compared to existing conditions; however, the improvement under Alternative 3 would be less than for the Project. Alternative 3 would not have as much of a potential to contribute sustainability benefits in the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin, whereas the Project would have such potential. Lastly, Alternative 3 would not provide as much additional water supply and would therefore not meet projected demand in the areas served by

the City during currently constrained dry periods. In contrast to the beneficial impact of the Project, the Alternative 3 water supply impact would also likely be potentially significant and unavoidable until an alternative source of water supply is developed. (Final EIR pp. 8-26 – 8-28.)

Finding. The City Council rejects Alternative 1 as infeasible, despite the fact that it would avoid the two significant and unavoidable effects of the Project (Impact NOI 2: Substantial Increase in Ambient Noise Levels in Excess of Standards; and Impact UTL-1: New or Expanded Facilities), both of which involve temporary construction-related noise. Measured against the Project, Alternative 3 represents an undesirable policy outcome that would not meet what the City Council, in its legislative capacity, considers to be important project objectives either at all or to the same degree as the Project. While Alternative 3 would technically meet the project objective to provide flow conditions that are protective of coho and steelhead within all streams from which the City diverts water (Agreed Flows) (Objective #2), it is possible that without ASR operations the City would not be able to comply with the Agreed Flows at certain times and therefore Alternative 3 would only moderately meet this objective. Under Alternative 3, the City would have to rely on surface water sources more heavily, as compared to the Project.

Alternative 3 would fully meet the project objectives regarding facilitating opportunities within the City and regionally for conjunctive use of the City's surface water and groundwater through transfers (Objective #4), removal of operational constraints on City water rights that do not explicitly recognize direct diversion (Objective #7), and improved fish passage and/or screening at the Felton and Tait Diversions and addressing operational deficiencies at the Tait Diversion and Coast Pump Station (Objectives #9 and #10). However, given that no ASR facilities, including Beltz ASR, would be implemented under Alternative 3 it would only moderately meet objectives related to: improving the operational flexibility of the City's system (Objective #1), supporting the implementation of the City's Water Supply Augmentation Strategy (Objective #3), finding more options for where and how the City can utilize its existing appropriative water rights (Objective #5), implementing state policy favoring integrated regional water management (Objective #11) and considering other related actions or activities that would be foreseeable if the Project is approved (Objective #12). Additionally, Alternative 3 would not meet the objective to provide for underground storage of surface water via ASR in conformance with the Santa Cruz Mid-County GSP (Objective #6). Alternative 3 may not meet the objective of allowing for additional time for the City to fully reach beneficial use in existing Felton water-right permits. Water diverted to underground storage via ASR under the Felton permits may be an element of maximizing use of the Felton permits (Objective #8).

Given the above, Alternative 3 would not fully support the implementation of the City's Water Supply Augmentation Strategy Element 1 (passive recharge of regional aquifers via water transfers) and Element 2 (active recharge of regional aquifers via ASR) to deliver a safe, adequate (i.e., filling the worst-year water supply gap), reliable and environmentally sustainable water supply (Objective #3). Some amount of water supply gap would remain under Alternative 3 and the City would not be able to contribute as much to regional conjunctive use, as compared to the Project. While the City could somewhat contribute to groundwater basin recovery in both the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin under this Alternative, with the implementation of water transfers, that contribution would be limited without ASR facilities. (Final EIR p. 8-28.)

In addition, the City Council agrees with the authors of the EIR that the Project is environmentally superior to Alternative 3, when the differing environmental impacts are given what the City Council considers to be their proper weight. Compared with all of the alternatives included in the EIR, the Project has the greatest environmental benefit to regional groundwater conditions. In addition, the Project would avoid the potentially significant and unavoidable water supply impact of all of the alternatives, and would reduce all impacts to less-than-significant levels with identified mitigation measures, with the exception of temporary construction noise impacts from ASR well-drilling

activities. In the City Council's policy judgment, the groundwater benefits of the Project outweigh in importance the limited significant and unavoidable noise impacts associated with temporary ASR well-drilling activities.

9 Statement of Overriding Considerations

As set forth in the preceding sections, the Santa Cruz City Council's approval of the Project will result in significant and adverse environmental effects that cannot be avoided even with the adoption of all feasible mitigation measures; and there are no feasible project alternatives that would mitigate or substantially lessen all of these impacts. Despite the occurrence of these effects, however, the City Council, in accordance with CEQA Guidelines Section 15093, chooses to approve the Project because, in the Council's considered judgment, the economic, social, environmental, and other benefits that the Project will produce will render the significant effects acceptable.

9.1 Significant and Unavoidable Impacts

As described above in Section 7.4 of these findings, the Project will result in the following potentially significant and unavoidable impacts associated with construction well drilling for new ASR facilities and the Beltz 9 ASR facility, even with the implementation of all feasible mitigation measures:

Noise (Impact NOI 2): Substantial Increase in Ambient Noise Levels in Excess of Standards. Construction of the Project would result in generation of a substantial temporary increase in ambient noise levels in the vicinity of some project and programmatic infrastructure components in excess of applicable standards established in local general plans or noise ordinances.

Utilities and Energy (Impact UTL-1): New or Expanded Facilities. Construction and operation of the Project would result in new or expanded water facilities that would result in significant impacts, but would not require or result in new or expanded wastewater treatment, storm drainage, electric power, natural gas, or telecommunications facilities or a new sewer trunk line.

Notably, the only aspect of Impact UTL-1 that is significant and unavoidable is associated with the construction of new ASR facilities, which, as also reflected in Impact NOI-2, will result in significant and unavoidable temporary noise impacts from well drilling operations, which must be conducted at night. All other aspects of Impact UTL-1 are either less than significant without mitigation or less than significant with mitigation. (Final EIR pp. 4.13-26 – 4.13-29.)

Thus, the only two significant effects of the Project are essentially the same: temporary construction-related noise impacts. All other potentially significant effects can be rendered less than significant through the adoption of feasible mitigation measures.

9.2 Overriding Considerations

In the City Council's judgment, the Project and its benefits outweigh its unavoidable significant effects due to temporary construction-related noise. The following statement identifies the specific reasons why, in the City Council's judgment, the benefits of the project as approved outweigh these unavoidable significant effects. Any one of these reasons is sufficient to justify approval of the Project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the City Council would stand by its determination that each individual

reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings.

1. **The Project will improve the City's water supply storage and improve flexibility with which the City operates the water system, facilitating the City's ability to deliver a safe, adequate, and reliable water supply.**

   The Project will provide needed supplemental water supplies during times of identified water supply shortfalls. With the flexibility provided by the Project's water rights modifications and in combination with conjunctive management and water augmentation options, the Project will eliminate potential water shortfalls during dry and multiple-dry years to meet the projected demand in the areas served by the City. The hydrological and water supply modeling conducted for the Project includes ASR facilities and water transfers. The results show that water supplies will be adequate to meet the estimated projected demand for all customers in the City's water service area. Therefore, the Project, including all project and programmatic components, provides adequate water supplies to serve projected demand from new City staff associated with the Project and projected demand in the areas served by the City during currently constrained dry periods.

2. **The Project will provide flow conditions that are protective of coho and steelhead within all streams from which the City diverts water.**

   The Project will enhance stream flows for local anadromous fisheries. Incorporating the Agreed Flows into City water rights will benefit local fisheries, specifically for coho and steelhead. The Agreed Flows would be incorporated into both pre-1914 rights on the North Coast streams and post-1914 permits and licenses on the San Lorenzo River and Newell Creek. The Agreed Flows, as incorporated into the City's water rights, will improve instream habitat and flow conditions for these fish species in the San Lorenzo River compared to historic operations. Application of the Agreed Flows to all City surface water rights as part of the Project will limit the amount of water the City can divert.

   The Agreed Flows are not feasible for the City to implement without all of the other elements of the Project. The Project in its entirety will serve to provide additional flexibility in the use of all City water sources to address the reduced storage at Loch Lomond Reservoir while benefiting instream flows for salmonid habitat. Without such flexibility, it would not be feasible for the City to implement the Agreed Flows and meet current and future demands.

3. **The Project will facilitate opportunities within the City and region for conjunctive use of the City's surface water rights in combination with groundwater.**

   The Project will expand the POUs of the City's pre-1914 and post-1914 appropriative water rights to include the areas served by the City, two local groundwater basins, and the service areas of neighboring water agencies. A significant barrier to implementing more conjunctive use of the City's sources of supply is existing constraints on the POUs for these sources. The Project will align the POUs of all of the City's appropriative water rights to cover the same area and expand those authorized POUs to include the Santa Cruz Mid-County Groundwater Basin and Santa Margarita Groundwater Basin as well as the service areas of the SqCWD, SVWD, SLVWD, and CWD. Expanded POUs are also necessary for improving the potential for conjunctive use of the region's resources with adjoining water agencies and within the region's groundwater basins. Conjunctive use of surface and groundwater supplies through the City's ASR operations will make some additional recovered groundwater available to the City and potentially to the region during dry periods.

4. **The Project will implement state policy favoring integrated regional water management involving the City and other local agencies.**

   The Project will implement state policy favoring integrated regional water management by involving the City and other local agencies in "significantly improving" the "reliability of water supplies" by "diversifying water portfolios, taking advantage of local and regional opportunities, and considering a broad variety of water management strategies," specifically by making more extensive conjunctive use of the surface-water, groundwater and groundwater-storage resources available to the City and, when Agreed Flows and City demands are met, making excess surface water under the City's surface-water rights available to neighboring agencies who are dependent on overdrafted groundwater basins. (Water Code Section 10531[c].)

5. **The Project will contribute to the protection of groundwater quality from seawater instruction in the Santa Cruz Mid-County Groundwater GSP and will contribute to groundwater sustainability in both the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin.**

   The Project provides for operation of ASR facilities consistent with applicable adopted existing or future GSPs and could contribute to groundwater sustainability of the Santa Cruz Mid-County Groundwater Basin and the Santa Margarita Groundwater Basin, depending on the facilities' locations. Contribution to groundwater sustainability of the Santa Cruz Mid-County Groundwater Basin will also contribute to the protection of groundwater quality from seawater intrusion per the Santa Cruz Mid-County GSP in support of the proposed water quality beneficial use. Protection of water quality will be added as a new purpose of use to all City appropriative water rights to support the use of surface water for ASR as it contributes to the protection of groundwater quality from seawater intrusion per the Santa Cruz Mid-County GSP.

6. **The Project will improve fish screening and passage at surface water diversion points within the City.**

   The Project includes fish passage improvements at the Felton Diversion that will provide for compliance with current fish passage and screening requirements. Minor modifications to the existing Felton Diversion are needed to comply with the latest fish passage and screening criteria. The modifications will be designed to support use of City water rights while improving passage for coho and steelhead. These improvements may include fish screen replacement, installation of a traveling brush system to keep the fish screens operating at optimum efficiency, and construction of a continuous downstream outmigration bypass route within the existing bypass channel with downstream opening slide gate. The Project also includes improvements at the Tait Diversion that will provide for compliance with current fish screening requirements. Upgrades will be implemented to meet current state and federal fisheries protection criteria.

7. **The Project will benefit recreational uses at Loch Lomond Reservoir by increasing the lake's water level.**

   Under current conditions, during the recreational use period of Loch Lomond Reservoir, from March 1 to mid-October, on average there are approximately 12% of days under existing conditions where a full season of boating and related operations do not occur because lake levels fall below approximately 564 feet above mean sea level (amsl). In comparison, under Project conditions, on average there will be approximately 4.5% of days where a full season of boating and related operations will not occur because lake levels fall below approximately 564 feet amsl, which represents an improvement over existing the condition. Therefore, the Project will have a beneficial effect on boating in Loch Lomond Reservoir, given that the Project will improve conditions for boating compared to existing conditions by increasing lake levels, which will allow for a full season of boating more frequently.

INTENTIONALLY LEFT BLANK

Exhibit B

INTENTIONALLY LEFT BLANK

10 Mitigation Monitoring and Reporting Program

Section 15097 of the California Environmental Quality Act (CEQA) Guidelines requires that, whenever a public agency approves a project based on a mitigated negative declaration or an environmental impact report (EIR), the public agency shall establish a mitigation monitoring or reporting program to ensure that all adopted mitigation measures are implemented.

This mitigation monitoring and reporting program (MMRP) for the Santa Cruz Water Rights Project (Proposed Project) has been prepared pursuant to CEQA (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations, Chapter 3, Sections 15074 and 15097). This is a new chapter that was not included in the Draft EIR. This MMRP is intended to be used by City of Santa Cruz Water Department (SCWD) staff, its contractors and mitigation monitoring personnel to ensure compliance with mitigation measures during project construction and implementation. Mitigation measures identified in this MMRP were developed during the preparation of the EIR prepared for the Proposed Project. A master copy of this MMRP shall be kept in the office of the SCWD and shall be available for viewing upon request.

The EIR for the Proposed Project presents a detailed set of mitigation measures required for implementation. As noted above, the intent of the MMRP is to ensure the effective implementation and enforcement of all adopted mitigation measures. The MMRP includes all mitigation measures identified in the EIR and, for each measure, the party responsible for implementation and implementation timing (see Table 10-1). The MMRP also includes the City's standard operation and construction practices, which are described in Chapter 3, Project Description, and would be implemented by the City and its contractors during project operations and construction activities.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
MITIGATION MEASURES IDENTIFIED IN THE ENVIRONMENTAL IMPACT REPORT		
Biological Resources		
MM BIO-1: Project Siting (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements). The City shall locate construction activities, including staging, on and adjacent to current development to the maximum extent feasible. All worker parking, equipment storage, and laydown areas should occur within developed areas and maintained rights-of-way, to the extent possible. Dirt or gravel pull-offs to the side of existing roads shall not be used except for temporary staging areas. To minimize temporary disturbances, the City shall restrict all vehicle traffic to established roads, construction areas, and other designated area. If ground disturbing activities associated with staging and work areas will occur outside existing developed areas and maintained rights-of-way, avoidance and minimization of impacts to special-status species and their habitats, sensitive vegetation communities, and jurisdictional aquatic resources shall be prioritized during the site selection process. Other Proposed Project mitigation measures will provide for compensatory mitigation to address potentially significant impacts to special-status species and their habitats (MM BIO-4 through MM-BIO-10), sensitive vegetation communities (MM BIO-11), and jurisdictional aquatic resources (MM BIO-12 through MM BIO-14).	City responsible for limiting construction activities, including staging, to existing developed areas and restricting all vehicle traffic to designated areas. City responsible for implementing other referenced mitigation measures if ground disturbing activities will occur outside existing developed areas. City responsible for inclusion of measure in construction specifications and contracts and periodic inspection. Contractor responsible for implementation.	Include measure in construction specifications and contracts: Prior to construction. Limit construction activities to designated areas: Prior to and during construction. Periodic inspections: During construction.
MM BIO-2: Instream Construction (Applies to Tait Diversion and Coast Pump Station Improvements). All instream construction activities shall be limited to the low-flow period between June 15 through November 1, except by extension approved by the California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS). If an extension of instream construction activities is determined necessary beyond the low-flow period, then the City shall provide the CDFW and NMFS with a rationale and method that ensures protection of fish species.	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation. City responsible for providing CDFW and NMFS with a rationale and method for protection of fish	Include measure in construction specifications and contracts: Prior to construction. Limit in-stream construction to low-flow period: During construction. Coordination with CDFW and NMFS: During construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
	species, if instream construction activities need to extend beyond low-flow period.	
MM BIO-3: Aquatic Vertebrate Rescue and Relocation Plan (Applies to Tait Diversion and Coast Pump Station Improvements). If native fish or native aquatic vertebrates are present during construction of a new or modified intake design, check dam modifications/notching, Coanda intake screen, and other required fish passage upgrades at the Tait Diversion facility, a native fish and aquatic vertebrate rescue and relocation plan shall be prepared. The plan shall be implemented by a qualified biologist during dewatering to ensure that significant numbers of native fish and aquatic vertebrates are not stranded.	City responsible for inclusion of measure in construction specifications and contracts, and for hiring a qualified biologist to prepare and implement relocation plan.	Include measure in construction specifications and contracts: Prior to construction. Plan preparation: Prior to construction. Plan implementation: During construction.
MM BIO-4: Preconstruction Nesting Bird Survey (Applies to New Aquifer Storage and Recovery [ASR] Facilities and Beltz ASR Facilities, Intertie Improvements, Felton Diversion Improvements, and Tait Diversion and Coast Pump Station Improvements). During the nesting season (February 1 – August 31), no more than two weeks prior to any ground disturbing activities, including removal of vegetation and clearing and grubbing activities, a nesting bird survey shall be completed by a qualified biologist to determine if any native birds are nesting in or adjacent to the study area (including within a 50-foot buffer for passerine species and a 250-foot buffer for raptors). If any active nests of native birds are observed during surveys, an avoidance buffer around the nests shall be established in the field to ensure compliance with California Fish and Game Code Section 3503. The avoidance buffer shall be determined by a qualified biologist in coordination with City staff, based on species, location, and extent and type of planned construction activity. Impacts to active nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.	City responsible for hiring qualified biologist to conduct surveys.	Nesting bird pre-construction survey: Within 7 days prior to initiation of construction activities. Roosting bat survey: Within 30 days prior to tree removal.
MM BIO-5: Preconstruction Wildlife Surveys (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements). A qualified biologist shall conduct preconstruction surveys of all ground disturbance areas within off-pavement project footprint areas to determine if special-status wildlife species are present prior to the start of construction. The biologist will conduct these surveys no more than two weeks prior to the beginning of construction.	City responsible for hiring qualified biologist to conduct surveys.	Pre-construction survey: Two weeks prior to initiation of construction activities.
MM BIO-6: Exclusionary Fencing (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements). High-visibility fencing for Environmentally Sensitive Areas shall be installed around all adjacent special-status species identified during the preconstruction surveys, which shall be retained and not disturbed by the Project, to preclude	City responsible for inclusion of measure in construction specifications and contracts.	Include measure in construction specifications and contracts: Prior to construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
encroachment within the root-zone of these plants by construction crews or vehicles. A biological monitor shall also accompany the work crew during excavation and installation of exclusion fencing to prevent harm to species that may be active present and moving along the fence route. Buffers that are established around active bird nests and special-status species (including potentially active woodrat nests) to be avoided shall be delineated with flagging. Buffers and fencing for nesting birds shall be maintained until the biological monitor verifies that the birds have fledged. All other fencing shall be maintained in good repair throughout the entire construction period.	Contractor responsible for installing and maintaining fencing. City responsible for hiring qualified biologist to monitor work crew during installation of fencing, delineate buffers with flagging around active bird nest and special-status species, and verify that birds have fledged.	Installation of fencing: Prior to construction Delineating buffers: Prior to construction. Maintaining fencing: During construction. Fencing removal: After birds have fledged.
MM BIO-7: Biological Construction Monitoring (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements). A qualified biologist shall monitor vegetation removal and ground disturbing activities during all work hours for off-pavement work or once a week for all other construction activities. The monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when birds have fledged if found present before construction. The biologist shall have stop-work authority in the event that a protected species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken. These logs shall be kept on-site and made available for inspection by agency personnel.	City responsible for hiring qualified biologist to conduct construction monitoring.	Conduct construction monitoring: During construction.
MM BIO-8: Species Relocation (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements). If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall capture and relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and/or National Marine Fisheries Service, as appropriate, prior to capture and relocation to obtain approval.	City responsible for hiring qualified biologist to conduct surveys, identify potential release sites, monitor project activities, relocate individuals, and notify noted resource agencies if a special-status species is identified prior to relocation.	Surveys and identification of potential release sites: Prior to construction. Monitoring and species relocation: During construction.
MM BIO-9: Entrapment Avoidance (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements). The construction contractor	City responsible for inclusion of measure in	Include measure in construction specifications

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
shall cover all construction-related holes in the ground overnight to prevent entrapment of any native wildlife species. The monitoring biologist shall inspect all construction pipes, culverts, or similar structures that are stored at the work area for one or more nights before the pipe is used or moved. If wildlife species are present, they shall be allowed to exit on their own or a qualified biologist shall move them out of the construction area to nearby habitat that has equivalent value to support the species. If special-status species are present and are federally or state-listed as threatened or endangered, the biologist shall notify the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and/or National Marine Fisheries Service, as appropriate, prior to capture and relocation to obtain approval.	construction specifications and contracts. Contractor responsible for covering construction-related holes. Biologist responsible for inspection of work area.	and contracts: Prior to construction. Cover holes and inspect work area: During construction.
MM BIO-10: Preconstruction Special-Status Plant Surveys and Compensation (Applies to New Aquifer Storage and Recovery Facilities and Intertie Improvements). If ground-disturbing activities associated with staging and work areas occur outside existing developed areas and maintained rights-of-way, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria. This plan shall be a component of the project's Habitat Mitigation and Monitoring Plan described in MM BIO-11: a. A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project; b. Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement or translocation; c. Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement or translocation; d. A description of proposed methods of preservation, restoration, enhancement, and/or translocation; e. A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations; f. A monitoring and reporting program to ensure mitigation success; and g. A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.	City responsible for hiring qualified biologist to conduct surveys, prepare plan and implement rehabilitation and monitoring.	Conduct focused plant survey: Prior to construction and during appropriate bloom period. Plan preparation if special-status species are found: Prior to construction. Plan implementation: During construction.
MM BIO-11: Sensitive Vegetation Communities Compensation (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).	City responsible for hiring qualified biologist to	Plan preparation: Prior to construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
Direct impacts to sensitive vegetation communities shall be mitigated via a combination of on-site and off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. It is anticipated that a one-time restoration effort at the completion of the project followed by monitoring and invasive weed removal for a minimum of 3 years would adequately compensate for the direct temporary impacts to these vegetation communities. Areas permanently impacted shall be mitigated through on-site enhancement activities including removal of non-native and invasive species for a minimum of 3 years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below). Rehabilitation and enhancement activities with Zayante soils, such as along the City/Scotts Valley Water District intertie, will be revegetated with plants native to the Zayante Sandhills, such as sticky monkeyflower (*Mimulus aurantiacus*), deer weed (*Lotus scoparius*), and silver bush lupine (*Lupinus albifrons* var. *albifrons*). These native plants will provide suitable habitat conditions for special-status species that might eventually colonize the temporarily impacted portion of the impact area. These revegetated areas will not include any landscape elements that degrade habitat for the special-status species, including mulch, bark, weed matting, rock, aggregate, or turf grass. The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will compensate for impacts of the Proposed Project on sensitive vegetation communities and shall at a minimum include discussion of the following: a. The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into natural regeneration of native species when applicable. b. The specific methods to be employed for revegetation. c. Success criteria and monitoring requirements to ensure vegetation community restoration success. d. Remedial measures to be implemented in the event that performance standards are not achieved.	prepare plan and implement rehabilitation and monitoring.	Rehabilitation and plan implementation: After completion of construction activities. Monitoring/weed removal: At least 3 years following rehabilitation.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
MM BIO-12: Preconstruction Jurisdictional Delineation (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements). If ground disturbing activities associated with staging and work areas will occur outside existing developed areas and maintained rights-of-way, a qualified biologist shall conduct a formal jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the U.S. Army Corps of Engineers, Regional Water Control Board, and/or California Department of Fish and Wildlife within the impact area.	City responsible for hiring qualified biologist to perform jurisdictional delineation.	Conduct delineation: Prior to construction.
MM BIO-13: Jurisdictional Aquatic Resources Avoidance (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements). Future refinements to the Proposed Project shall endeavor to avoid jurisdictional aquatic resources regulated by the U.S. Army Corps of Engineers, Regional Water Control Board, and California Department of Fish and Wildlife, to the extent practicable, through design changes or implementation of alternative construction methodologies. Where feasible and appropriate, all jurisdictional aquatic resources not directly affected by construction activities will be avoided and protected by establishing staking, flagging or fencing between the identified construction areas and aquatic resources to be avoided/preserved.	City responsible for hiring qualified biologist to establish fencing or flagging to identify aquatic resources to be avoided.	Establish fencing and flagging: Prior to construction.
MM BIO-14: Jurisdictional Aquatic Resources Compensation (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements). For unavoidable impacts to jurisdictional aquatic resources, a project-specific mitigation plan shall be developed, approved by the U.S. Army Corps of Engineers, Regional Water Control Board, and/or California Department of Fish and Wildlife, as appropriate, through their respective regulatory permitting processes, and implemented. The mitigation plan shall specify the criteria and standards by which the mitigation will compensate for impacts of the Proposed Project and include discussion of the following: a. The mitigation objectives and type and amount of mitigation to be implemented (in-kind mitigation at a minimum mitigation ratio of 1:1); b. The location of the proposed mitigation site(s) (within the San Lorenzo River watershed, if possible); c. The methods to be employed for mitigation implementation (jurisdictional aquatic resource establishment, re-establishment, enhancement, and/or preservation); d. Success criteria and a monitoring program to ensure mitigation success; and e. Adaptive management and remedial measures in the event that performance stands are not achieved.	City responsible for hiring qualified biologist to prepare plan. City responsible for implementing plan.	Plan preparation: Prior to construction. Plan implementation: After completion of construction activities, or as specified in the plan.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
Cultural Resources and Tribal Cultural Resources		
MM CUL-1: Historic-Era Built Environment Resources. Potentially significant impacts to historic built environmental resources on the infrastructure component sites shall be addressed through the following measures: a. **Identify Potential Historic Built Environment Resources (Applies to New Aquifer Storage and Recovery Facilities and the Felton Diversion).** When new or upgraded facilities move into project-level design and those developments are being pursued by the City of Santa Cruz (City), a qualified cultural resource specialist shall review the project site and conduct a California Historical Resources Information System (CHRIS) records search. If there are no previously recorded resources or historic era buildings or structures located on the site, no further action is warranted. If these project site review efforts indicate a potential for California Environmental Quality Act (CEQA) historical resources, all buildings and structures within the component site that are 45 years or older, shall be identified and measure b shall be implemented. b. **Evaluate Potential Built Environment Resources (Applies to New ASR Facilities, City/Soquel Creek Water District/Central Water District Intertie – Soquel Village and Park Avenue Pipelines, and the Felton Diversion).** Should potential CEQA historical resources be identified within the above programmatic infrastructure component sites, prior to project implementation, the City or other lead agency overseeing the Proposed Project shall retain a qualified architectural historian, meeting the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations Part 61), to record such potential resources based on professional standards, to formally assess their significance under CEQA Guidelines Section 15064.5. A Historic Resources Evaluation Report (HRER) shall be prepared by the architectural historian to evaluate properties over 45 years of age under all applicable significance criteria. In consideration of the historic context for the existing water management systems in the region there is a low-likelihood that water management structures that postdate the late 1800s or early 1900s (pioneering water system era) will be found historically significant. Therefore, for existing infrastructure component sites it is likely that the HRER will find that no properties meet the significance criteria and therefore, no CEQA historical resources are likely to be present. No further work shall be required for historic era-built environment properties, buildings, or structures 45 years old or older at these sites that are not found to meet the CEQA historical significance criteria as historical resources. If a property is found to be eligible for listing under the applicable significance criteria and therefore considered a CEQA historical resource, the resource shall be avoided or preserved in place. If avoidance or preservation in place is not feasible, and the historical resource will be modified through design such that it	City responsible for hiring a qualified cultural resource specialist and architectural historian to conduct records search and evaluate potential historic built environment resources.	Conduct records search and evaluate resources: Prior to construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
may not be able to convey its historic significance, the City will retain a qualified architectural historian to prepare a subsequent technical report. This required report will assess the proposed project design plans and/or schematics in conjunction with the subject CEQA historical resource and determine whether the Proposed Project conforms with the Secretary of the Interior's Standards for the Treatment of Historic Properties, specifically, the Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Structures). The City shall modify the Proposed Project, as needed, to ensure that the Secretary of the Interior's Standards are met such that the historical resource continues to convey its historical significance.		
MM CUL-2: Historic or Unique Archaeological Resources. Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources. Potentially significant impacts to unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources on the infrastructure component sites shall be addressed through the following measures: a. **Identify Potential Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources (Applies to New Aquifer Storage and Recovery [ASR] Facilities and Other Components where Five Years Have Elapsed).** When new ASR facilities sites are identified and those components are being pursued by the City of Santa Cruz (City), a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, shall conduct a California Historical Resources Information System (CHRIS) records search, a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search and perform an intensive surface reconnaissance within a specifically defined Area of Direct Impact (ADI). Based on the above, all archaeological sites within or near the component site or area of potential effect shall be identified. The sensitivity of the site for discovering unknown resources, shall also be identified. The qualified archaeologist will prepare a technical report with the results of the above. The qualified archaeologist shall attempt to ascertain whether the archaeological sites qualify as unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources. If known or identified resources of these kinds are present on the site, measure c shall be implemented. This measure shall also be implemented for any other project or programmatic components that are implemented more than five years after the CHRIS records search and NAHC SLF search were conducted.	City responsible for hiring a qualified archaeologist to conduct records search, prepare cultural resources technical report, evaluate identified resources, and prepare and implement data recovery plan, as warranted City responsible for inclusion of inadvertent discovery clause in construction specifications and contracts. Contractor responsible for implementation of inadvertent discovery clause, which includes cultural resource sensitivity training for workers.	Include measure in construction specifications and contracts: Prior to construction. Identifying and evaluate cultural resources: Prior to construction. Training: Prior to construction and prior to new work crews coming onto the site. Evaluate potential cultural resources: Prior to and during construction, as warranted. Data recovery plan preparation and implementation: During construction if identified resource is determined to be significant.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
b. **Standard Sensitivity Training and Inadvertent Discovery Clauses (Applies to all Components).** The City or other lead agency shall include a standard clause in every construction contract for the Proposed Project, which requires cultural resource sensitivity training for workers prior to conducting earth disturbance in the vicinity of a documented cultural-resource-sensitive area, should one be identified in the future. Prior to site mobilization or construction activities on the project site, a qualified archaeologist with training and experience in California prehistory and historical period archaeology shall conduct the cultural resources awareness training for all project construction personnel. The training shall address the identification of buried cultural deposits, including Native American and historical period archaeological deposits and potential tribal cultural resources, and cover identification of typical prehistoric archaeological site components including midden soil, lithic debris, and dietary remains as well as typical historical period remains such as glass and ceramics. The training must also explain procedures for stopping work if suspected resources are encountered. Any personnel joining the work crew subsequent to the training shall also receive the same training before beginning work. Consistent with Standard Construction Practice #24, standard inadvertent discovery clauses shall also be included in every construction contract for the Proposed Project by the City or other lead agency, which requires that in the event that an archaeological resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease until a qualified archaeologist can evaluate the find and make a recommendation for how to proceed, as specified in measure c. c. **Evaluate Potential Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources (Applies to all Components).** For an archaeological resource that is discovered during initial site review (measure a) or during construction (measure b), the City or other lead agency shall: • Retain a qualified archaeologist to determine whether the resource has potential to qualify as either a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource under Public Resources Code section 21074, California Environmental Quality Act (CEQA) Guidelines Section 15064.5, or Section 106 of the National Historic Preservation Act. • If the resource has potential to be a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource, the qualified archaeologist, in consultation with the lead agency, shall prepare a research		

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
design and archaeological evaluation plan to assess whether the resource should be considered significant under CEQA criteria. • If the resource is determined significant, the lead agency shall provide for preservation in place, if feasible. If preservation in place is not feasible, the qualified archaeologist, in consultation with the lead agency, will prepare a data recovery plan for retrieving data relevant to the site's significance. The data recovery plan shall be implemented prior to, or during site development (with a 100-foot buffer around the resource). The archaeologist shall also perform appropriate technical analyses, prepare a full written report and file it with the Northwest Information Center, and provide for the permanent curation of recovered materials. The written report will provide new recommendations, which could include, but would not be limited to, archaeological and Native American monitoring for the remaining duration of project construction.		
Geology and Soils		
MM GEO-1: Operation of New Aquifer Storage and Recovery (ASR) Facilities in Liquefaction-Prone Areas (Applies to New ASR Facilities). To avoid increasing the potential for liquefaction, ASR injections in new wells located in potential liquefaction zones, as depicted on Figure 4.5-3, shall be maintained and operated such that existing shallow groundwater (i.e., depth generally less than 100 feet) does not rise to within 40 feet of the ground surface. Similarly, ASR injections in potential liquefaction zones shall be maintained and operated such that existing groundwater within a depth of 40 feet or less does not rise closer to the ground surface.	City responsible for monitoring operations to achieve this measure.	Monitoring: During operation of ASR facilities located in potential liquefaction zones.
MM GEO-2: Paleontological Resources Impact Mitigation Program and Paleontological Monitoring. Potentially significant impacts to paleontological resources on the project and programmatic infrastructure component sites shall be addressed through the following measures: a. **Identify Potential Paleontological Resources (Applies to New Aquifer Storage and Recovery [ASR] Facilities).** When new ASR facilities sites are identified and those components are being pursued by the City or other lead agency, a qualified a qualified paleontologist pursuant to the Society of Vertebrate Paleontology (SVP) 2010 guidelines, shall conduct a paleontological records search from the Natural History Museum of Los Angeles County (LACM) and conduct a desktop geological and paleontological research. Based on the above, all paleontological sites within or near the programmatic component site shall be identified. The sensitivity of the site for discovering unknown paleontological resources, shall also be identified. The qualified paleontologist will prepare a brief technical report with the results of the above. If known or	City responsible for hiring qualified paleontologist to prepare the PRIMP and conduct worker training and monitoring. City responsible for inclusion of paleontological resource protection clauses in construction specifications and contracts.	Include measure in construction specifications and contracts: Prior to construction. Identifying potential paleontological resources: Prior to construction. PRIMP preparation and worker training: Prior to site grading or excavation.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
identified resources are present on the site, or if the site has moderate to high sensitivity for paleontological resources, measures b and c shall be implemented. b. **Develop Paleontological Resources Impact Mitigation Program (Applies to all Known Infrastructure Components and May Apply to New ASR Facilities).** Prior to commencement of any grading activity on infrastructure component sites with moderate to high paleontological sensitivity or that may have such sensitivity at depth, the City or other lead agency shall retain a qualified paleontologist pursuant to the SVP (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Proposed Project. The PRIMP can be written to include all infrastructure components located in sites with moderate to high paleontological sensitivity. The PRIMP shall be consistent with the SVP (2010) guidelines and shall, at a minimum, contain the following elements: • Introduction to the project, including project location, description of grading activities with the potential to impact paleontological resources, and underlying geologic units. • Description of the relevant laws, ordinances, regulations, and standards pertinent to the project and potential paleontological resources. • Requirements for preconstruction meeting attendance by the qualified paleontologist and/or their designee and worker environmental awareness training for grading contractors that outlines laws protecting paleontological resources and the types of resources that may be encountered on site. • Identification of locations where full-time paleontological monitoring within geological units with high paleontological sensitivity is required within the project or programmatic sites based on construction plans and/or geotechnical reports. • Requirements and frequency of paleontological monitoring spot-checks below a depth of five feet below the ground surface in areas underlain by Holocene sedimentary deposits. • The types of paleontological field equipment the paleontological monitor shall have on-hand during monitoring. • Discoveries treatment protocols and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils). • Requirements for adequate reporting and collections management, including daily logs, monthly reports, and a final paleontological monitoring report that details the		Monitoring: During grading and ground disturbance as specified in the PRIMP.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
monitoring program and includes analyses of recovered fossils and their significance and the stratigraphy exposed during construction. • Requirements for collection and complete documentation of fossils identified within the project site prior to construction and during construction, including procedures for temporarily halting construction within a 50-foot radius of the find while documentation and salvage occurs and allowing construction to resume once collection and documentation of the find is completed. Prepared fossils along with copies of all pertinent field notes, photos, maps, and the final paleontological monitoring report shall be deposited in a scientific institution with paleontological collections. Any curation costs shall be paid for by the City. c. **Standard Paleontological Clauses in Construction Contracts (Applies to all Infrastructure Components).** The City or other lead agency shall include standard clauses in construction contracts for infrastructure components located in areas with moderate to high paleontological sensitivity. A standard clause shall be included that requires paleontological resource sensitivity training for workers prior to conducting earth disturbance activities. A standard inadvertent discovery clause shall also be included that indicates that in the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find.		
Hazards, Hazardous Materials, and Wildfire		
MM HAZ-1: Review of Hazardous Materials Site Databases (Applies to New Aquifer Storage and Recovery Facilities). Prior to construction where ground disturbance is required, a review of hazardous materials site databases will be conducted within 0.5 miles of the project site where the construction is proposed (project site). A search shall be conducted no more than six months prior to construction. In addition to sites identified in this environmental impact report, each new site identified within 0.5 miles of the project site will be reviewed for environmental contamination that could impact the project site, including soil, soil vapor, and groundwater contamination. If soil, soil vapor, and/or groundwater contamination is identified in the review, MM HAZ-2 will be implemented.	City responsible for review of hazardous site databases, or for hiring a qualified technician to conduct such a database review.	Review of hazardous materials site databases: Prior to construction.
MM HAZ-2: Hazardous Materials Contingency Plan (Applies to New Aquifer Storage and Recovery Facilities and City of Santa Cruz/Soquel Creek Water District/Central Water District Intertie – Soquel Village Pipeline). Prior to commencement of any construction activities, a Hazardous Materials Contingency Plan	City responsible for hiring a qualified engineer to develop plan.	Include measure in construction specifications and contracts if required by

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
(HMCP) shall be developed that addresses known and suspected impacts in soil, soil vapor, and groundwater from releases on or near the project sites. The HMCP shall include training procedures for identification of contamination. The HMCP shall describe procedures for assessment, characterization, management, and disposal of hazardous constituents, materials, and wastes, in accordance with all applicable state and local regulations. Contaminated soils and/or groundwater shall be managed and disposed of in accordance with local and state regulations. These regulations, as further described in Section 4.7.2, Regulatory Framework (Section 4.7, Hazards, Hazardous Materials, and Wildfire), include hazardous material transportation (California Department of Transportation and Department of Toxic Substances Control [DTSC]), hazardous waste regulations (U.S. Environmental Protection Agency and DTSC), worker health and safety during excavation of contaminated materials (California Division of Occupational Safety and Health Administration), and local disposal requirements (DTSC and landfill-specific). The HMCP shall include health and safety measures, which may include but are not limited to periodic work breathing zone monitoring and monitoring for volatile organic compounds using a handheld organic vapor analyzer in the event impacted soils are encountered during excavation activities.	City responsible for inclusion of plan implementation in construction specifications and contracts. Contractor to implement plan during construction.	MM HAZ-2: Prior to construction. Development of plan: Prior to initiation of construction activities. Implementation of plan: During construction.
Hydrology and Water Quality		
MM HYD-1: Ammonia Monitoring (Applies to Beltz 12 Aquifer Storage and Recovery [ASR] Facility). Consistent with groundwater monitoring completed for the Beltz 12 ASR Pilot Test Project (Pueblo Water Resources 2020), monitoring for ammonia shall be completed in the Beltz 12 well and the Soquel Creek Water District (SqCWD) O'Neill Ranch well during future Beltz 12 ASR pilot tests and ASR operations. The City shall establish ammonia concentrations beginning at least 12 months prior to commencement of Beltz 12 ASR operations, by conducting quarterly sampling, and obtaining similar sampling data for the SqCWD's O'Neill Ranch well, as provided by SqCWD. During the first year of Beltz 12 ASR injection and extraction operations, the City shall conduct monthly monitoring of ammonia concentrations in groundwater. Following the first year of operations, monitoring of ammonia shall be quarterly. In the event that over a two-year sampling period after initiation of Beltz 12 ASR operations, City ammonia monitoring data, in combination with ammonia monitoring data from the SqCWD O'Neill Ranch well, indicates Beltz 12 ASR operations are not resulting in changes to ammonia concentrations that could adversely affect operations at the SqCWD's O'Neill Ranch well, ammonia sampling shall be discontinued in the Beltz 12 ASR well. The City ammonia monitoring data, in combination with ammonia monitoring data from the SqCWD O'Neill Ranch well, shall be evaluated to determine if Beltz 12 ASR operations are resulting in changes to ammonia concentrations that could adversely affect operations at the SqCWD's O'Neill Ranch well. If ammonia levels increase above baseline, the City and SqCWD shall cooperatively develop, fund, and implement a hydrogeologic investigation to evaluate the source(s) and distribution of ammonia in the	City responsible for specified ammonia monitoring at Beltz 12 ASR. City and SqCWD responsible for cooperatively implementing hydrogeologic investigation, as warranted. City responsible for modifying ASR injection and/or extraction operations if hydrogeologic investigation indicates that Beltz 12 ASR operations are resulting in ammonia concentrations above baseline concentrations.	Establish baseline ammonia concentrations: at least 12 months prior to operations. Conduct monthly monitoring of ammonia concentrations: during first year of operations. Conduct quarterly monitoring of ammonia concentrations: after first year of operations. Discontinue monitoring: if two-year sampling period of City and SqCWD ammonia monitoring data indicates operations are not resulting in changes to ammonia concentrations that could adversely affect operations at SqCWD's O'Neill Ranch well.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
aquifer system and potential causes of the observed ammonia increases. The investigation shall include, if applicable, installation of a monitoring well cluster between the Beltz 12 ASR well and the O'Neill Ranch well to evaluate the gap in data between these two wells. To the extent that the results of the hydrogeologic investigation indicate that Beltz 12 ASR operations are resulting in ammonia concentrations above baseline concentrations, ASR injection and/or extraction operations shall be modified until ammonia concentrations decrease to baseline (or lower) levels, as demonstrated with monthly (during the first year of operations) or quarterly monitoring data from the Beltz 12 ASR well, and the SqCWD's O'Neill Ranch well, as provided by SqCWD. The Beltz 12 ASR modifications shall be proportional to the degree of impact being caused by Beltz 12 ASR operations (versus O'Neill Ranch well operations). Quarterly monitoring reports shall be prepared to document monitoring results. Additionally, during the next Mid-County Groundwater Sustainability Plan update process, the City shall work with other member agencies of the Mid-County Groundwater Sustainability Agency to address ammonia as a groundwater quality issue in the basin if warranted based on the outcome of monitoring and any hydrogeologic investigation performed, and incorporate the City's Beltz 12 ASR well and the SqCWD's O'Neill Ranch well into the plan update to allow for the ongoing assessment and monitoring of ammonia concentrations.		
MM HYD-2: Groundwater Level Monitoring (Applies to Beltz 12 Aquifer Storage and Recovery [ASR] Facility). Consistent with restrictive effects criteria established in private well baseline assessment reports (Hydro Metrics 2015a, 2015b, 2015c, 2015d, 2015e), the private well monitoring program currently in place under the April 2015 cooperative monitoring/adaptive groundwater management agreement (cooperative groundwater management agreement) and the April 2015 stream flow and well monitoring agreement, between the City of Santa Cruz (City) and Soquel Creek Water District (SqCWD), shall be continued with respect to groundwater levels, and the City will contact and enroll any additional residents with private domestic wells within a 3,300-foot radius of the City's Beltz 12 ASR facility who want to join the program. Consistent with the existing cooperative groundwater management agreement, the City and SqCWD shall share monitoring and mitigating for impacts to third parties, such as private wells found in the area of overlap of 3,300-foot radius around SqCWD's O'Neill Ranch Well and 3,300-foot radius around the City's Beltz 12 well. Monitoring expenses shall be shared equally while mitigation expenses shall be shared proportionately. If private well monitoring reveals impacts to private wells due to the presence of restrictive effects, pump tests shall be conducted to determine proportionality. Monitoring and mitigation of impacts to private wells within a 3,300-foot radius of either the O'Neill Ranch well or Beltz 12 well, but not located in the overlap area, shall be the sole responsibility of the agency whose 3,300-foot radius encompasses the private well.	City and SqCWD are responsible for groundwater level monitoring and implementing a hydrogeologic investigation, as necessary. City is responsible to contact and enroll additional residents with private domestic wells within 3,300 of the Beltz 12 ASR facility. City responsible for modifying ASR injection and/or extraction operations if hydrogeologic investigation indicates that Beltz 12 ASR	Contact and enroll additional residents: Prior to Beltz 12 ASR operations. Monitoring of private wells: During Beltz 12 ASR operations. Discontinue monitoring: five years after initiation of Beltz 12 ASR operations, unless monitoring period is extended, as specified.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
If demonstrated restrictive effects to nearby private domestic wells occur during ASR pilot testing or operations, the City and SqCWD shall cooperatively develop, fund, and implement a hydrogeologic investigation to evaluate the potential causes of the observed restricted effects in private wells. To the extent that the results of the hydrogeologic investigation indicates that Beltz 12 ASR operations are resulting in restrictive effects, ASR injection and/or extraction operations shall be modified until the corresponding undesirable effects are eliminated, as demonstrated with biannual monitoring data from the private wells. The Beltz 12 ASR modifications shall be proportional to the degree of impact being caused by Beltz 12 ASR operations (versus O'Neill Ranch well operations). Biannual and annual monitoring reports shall be prepared to document monitoring results. In the event that restrictive effects to nearby private domestic wells does not occur during ASR pilot testing or operations, for a period of five years after initiation of Beltz 12 ASR operations, the City's participation in the private well monitoring program will be discontinued. However, the five-year monitoring period will be extended, if necessary, to account for multi-year drought conditions. The determination as to whether to extend the monitoring period will be based on an evaluation of the groundwater monitoring data collected over the five-year monitoring period, in combination with a review of any drought conditions present during that period. Results of this evaluation will be shared with SqCWD and any associated comments by SqCWD will be considered in determining the need for extension of the monitoring program beyond the five-year period. Additionally, during the next Mid-County Groundwater Sustainability Plan (GSP) update process, the City shall work with other member agencies of the Mid-County Groundwater Sustainability Agency to update information in the GSP related to private wells and the ongoing assessment and monitoring of groundwater levels at these wells, if warranted based on the outcome of monitoring and any hydrogeologic investigation performed. However, the five-year monitoring period will be extended, if necessary, to account for multi-year drought conditions. The determination as to whether to extend the monitoring period will be based on an evaluation of the groundwater monitoring data collected over the five-year monitoring period, in combination with a review of any drought conditions present during that period. Results of this evaluation will be shared with SqCWD and any associated comments by SqCWD will be considered in determining the need for extension of the monitoring program beyond the five-year period.	operations are resulting in restrictive effects.	
MM HYD-3: Drainage Improvements (Applies to City of Santa Cruz/Scotts Valley Water District Intertie Pump Station and City of Santa Cruz/Soquel Creek Water District/Center Water District New Intertie Pump Stations). Final pump station designs shall include Low Impact Development features, which would: (1) reduce post-construction stormwater runoff rates to be less than or equal to existing conditions, for a 24-hour, 25-year storm event; and (2) minimize off-site runoff of stormwater pollutants	City responsible for hiring qualified engineer to design Low Impact Development (LID) features.	Include measure in design and construction specifications and contracts: Prior to construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
through filtration features, such oil-water separators, vegetated swales, and bioretention basins. These features shall be inspected monthly to ensure functionality.	City responsible for inclusion of LID requirements in design and construction specifications and contracts. Contractor to implement LID designs during construction. City responsible for monthly inspections.	Development of LID designs: Prior to construction. Implementation of LID designs: During construction. Inspections: During operations.
Land Use, Agriculture and Forestry, and Mineral Resources		
MM LU-1: Avoidance of Agricultural and Forest Lands (Applies to New Aquifer Storage and Recovery [ASR] Facilities). The following measures shall be implemented to avoid conversion of Farmland or forest/timberland, and/or conflicts with agricultural zoning in the coastal zone: • Locate new ASR facilities on sites that do not contain Farmland (i.e., prime, unique, or important farmland under the State Farmland Mapping and Monitoring Program) unless site-specific application of the Land Evaluation and Site Assessment model determines that the site would not result in a significant impact to agricultural lands. • Locate new ASR facilities on sites that do not contain forest/timber land. • Locate new ASR facilities on sites that are not zoned for agricultural uses in the coastal zone.	City to implement measure during site selection for new ASR facilities.	Avoid agricultural and forest lands: Prior to construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
Noise		
MM NOI-1: Operational Noise Levels (Applies to Coast Pump Station Improvements). The Proposed Project shall implement the following measures to reduce the potential for exposure of nearby noise-sensitive receptors to excessive noise levels: • Where feasible, a primary element for the selection of proposed noise-generating equipment (e.g., pumps, motors, transformers, etc.) shall be equipment that inherently does not generate an increase of +3 dB in the ambient noise levels where the existing ambient is below 60 dBA L_{dn}, or a +5 dB increase in the ambient noise levels where the existing ambient is above 65 dBA L_{dn}, as measured at the nearest sensitive receptor. • Where this is not feasible, noise-generating equipment shall be located within a full or partial noise reduction enclosure. The effectiveness of the equipment enclosure to reduce noise level exposure to within the applicable noise level threshold shall be demonstrated through submittal of a focused acoustical assessment.	City responsible for inclusion of operational noise requirements in design and construction specifications and contracts. Contractor responsible for selecting equipment or locating equipment within enclosure and providing focused acoustical assessment. City responsible for review of equipment and focused acoustical assessment.	Include measure in design and construction specifications and contracts: Prior to construction. Review of equipment and focused acoustical assessment: Prior to design approval.
MM NOI-2: Construction Noise (Applies to all Infrastructure Components). The Proposed Project shall implement the following measures related to construction noise: • Restrict construction activities and use of equipment that have the potential to generate significant noise levels (e.g., use of concrete saw, mounted impact hammer, jackhammer, rock drill, etc.) to between the hours of 8:00 a.m. and 5:00 p.m., unless specifically identified work outside these hours is authorized by the City's Water Director as necessary to allow for safe access to a construction site, safe construction operations, efficient construction progress, and/or to account for prior construction delays outside of a contractor's control (e.g., weather delays). • Construction activities requiring operations continuing outside of the standard work hours of 8:00 a.m. and 5:00 p.m. (e.g., borehole drilling operations) shall locate noise generating equipment as far as possible from noise-sensitive receptors, and/or within an acoustically rated enclosure (meeting or exceeding Sound Transmission Class [STC] 27), shroud or temporary barrier as needed to prevent the propagation of sound into the surrounding areas in excess of the 60 dBA nighttime (10:00 p.m. to 8:00 a.m.) and 75 dBA daytime (8:00 a.m. to 10:00 p.m.) criteria at the nearest sensitive receptor. Noisy construction equipment, such as temporary pumps that are not submerged, aboveground conveyor systems, and impact tools will likely require location within	City responsible for inclusion of construction noise requirements in construction specifications and contracts. Contractor responsible for implementation during construction.	Include measure in construction specifications and contracts: Prior to construction. Implementation of measure: During construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
such an acoustically rated enclosure, shroud or barrier to meet these above criteria. Impact tools, in particular, shall have the working area/impact area shrouded or shielded whenever possible, with intake and exhaust ports on power equipment muffled or suppressed. Impact tools may necessitate the use of temporary or portable, application-specific noise shields or barriers to achieve compliance. • Portable and stationary site support equipment (e.g., generators, compressors, and cement mixers) shall be located as far as possible from nearby noise-sensitive receptors. Construction equipment and vehicles shall be fitted with efficient, well-maintained mufflers that reduce equipment noise emission levels at the project site. Internal-combustion-powered equipment shall be equipped with properly operating noise suppression devices (e.g., mufflers, silencers, wraps) that meet or exceed the manufacturer's specifications. Mufflers and noise suppressors shall be properly maintained and tuned to ensure proper fit, function, and minimization of noise. • Construction equipment shall not be idled for extended periods of time (i.e., 5 minutes or longer) in the immediate vicinity of noise-sensitive receptors.		
MM NOI-3: Construction Vibration (Applies to New Aquifer Storage and Recovery Facilities and all Intertie Improvements). The Proposed Project shall implement the following measures to reduce the potential for structural damage from groundborne noise and vibration: • Vibratory rollers or compactors shall not be used within 15 feet of sensitive receptors. • Heavy equipment required to operate within 9 feet of sensitive receptors shall be limited to rubber-tired equipment.	City responsible for inclusion of construction vibration requirements in construction specifications and contracts. Contractor responsible for implementation during construction.	Include measure in construction specifications and contracts: Prior to construction. Implementation of measure: During construction.
STANDARD OPERATIONAL PRACTICES INCLUDED IN THE PROPOSED PROJECT		
1. Ramping rates[1] developed during the pending ASHCP process and agreed to by CDFW and NMFS will be implemented at all City diversion facilities as follows: • During changes in diversion rates, a ramping rate will be implemented at the Laguna Diversion, Liddell Diversion, Majors Diversion, and Tait Diversion to limit downstream flow reductions below the diversions such that the change in stage is no greater than 0.16 feet	City responsible for implementing all operational practices, including ramping rates.	Throughout operation of all City diversion facilities.

[1] Ramping rates are diversion rates that gradually alter diversions from a stream channel to limit the downstream rate of change to stream stage. Stage is the water level in a stream or river defined in reference to a certain height.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
per hour when fry may be present (January 15 through May 31) and no greater than 0.3 feet per hour at all other times. • During changes in bypass rates downstream of Newell Creek Dam, a ramping rate will be implemented to limit flow reductions in Newell Creek such that the change in stage is no greater than 0.16 feet per hour when fry may be present (January 15 through May 31) and no greater than 0.3 feet per hour at all other times. • During inflation and deflation of the dam at Felton Diversion, a ramping rate will be implemented such that during inflation of the dam, downstream stage decreases will be limited to no more than 0.55 feet per hour, and during deflation of the dam, downstream stage increases below the diversion will be limited to no more than 1.68 feet per hour.		
2. Operation of the ASR injections and extractions anticipated by the Proposed Project will be consistent with the sustainable management criteria, and will avoid any undesirable results identified in the adopted Santa Cruz Mid-County Groundwater Basin GSP and in any future revisions to the GSP. ASR facilities and associated injections and extractions in the Santa Margarita Groundwater Basin will be planned to be installed and operated after the Santa Margarita Groundwater Basin GSP is prepared, adopted, and submitted to the Department of Water Resources in January 2022. The proposed timing will allow ASR injections and extractions to be consistent with the sustainable management criteria, and avoid any undesirable results identified, in the adopted Santa Margarita Groundwater Basin GSP and in any future revisions to the GSP. To avoid any undesirable results in both groundwater basins, minimum thresholds identified in both GSPs will not be exceeded during operation of ASR, as measured at representative monitoring points based on a five-year average, which under the Sustainable Groundwater Management Act will provide for avoidance of undesirable effects and achievement and maintenance of groundwater basin sustainability. To support the achievement of minimum thresholds in the long-term, any early management action triggers identified in the GSPs (e.g., chloride concentration and groundwater elevation triggers in the Mid-County GSP) will also be used in the short-term during ASR operations to identify the need for implementation of early management actions, if any such actions are identified in the GSPs.	City responsible for implementing all operational practices, including operation of ASR injections and extractions consistent with the applicable GSP.	Throughout operation of ASR injections and extractions. Monitoring minimum thresholds: During operations based on a five-year running average. Monitoring early management action triggers: During operations based on short-term data (e.g., 30-day running average).
3. ASR facilities will be permitted, constructed, and operated in accordance with the SWRCB Water Quality Order 2012-0010, General Waste Discharge Requirements for Aquifer Storage and Recovery Projects that Inject Drinking Water into Groundwater. This Order provides consistent regulation of ASR projects state-wide; provides a streamlined review and permitting process for	City responsible for implementing all operational practices, including compliance with	Throughout project operations.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
ASR projects; and ensures compliance with applicable regulations and policies, including the RWQCB Basin Plans and State Water Board Resolution 68-18 (the Antidegradation Policy). The Order addresses possible elevated concentrations of naturally occurring or anthropogenic constituents in the aquifer, as well as the potential effects of mixing water from different sources, which may cause geochemical reactions in the aquifer that can improve or degrade groundwater quality. The Order requires groundwater monitoring of the injection/extraction wells and monitoring wells to evaluate the potential for groundwater quality changes. In accordance with this Order, a technical report will be required in association with ASR permitting, including a hydrogeologic evaluation (e.g., injected aquifer characteristics) and water quality evaluation (e.g., potential impact to ongoing remediation efforts, mobilization of contaminants). A Monitoring and Reporting Program will be required, including requirements for monitoring of injected water quality, groundwater quality, and groundwater elevation/gradient.	SWRCB Water Quality Order 2012-0010. City responsible for preparation of a hydrogeologic evaluation and water quality evaluation, and Monitoring and Reporting Program.	
4. Diversions from surface streams to provide water for ASR injections will be limited by the following: • No diversions to provide water for ASR injections will occur in months classified as Hydrologic Condition 5 (driest) as defined in the Agreed Flows (Table 3-5a).	City responsible for implementing all operational practices, including water diversions from surface streams for ASR injections.	Throughout project operations.
5. Diversions by the City from surface streams to support City water transfers and/or exchanges to neighboring agencies will be limited by the following: • The City will not divert water from surface streams to transfer to neighboring agencies pursuant to the Proposed Project in months classified as Hydrologic Condition 4 (dry) or Hydrologic Condition 5 (driest) as defined in the Agreed Flows (Table 3-5a).	City responsible for implementing all operational practices, including water diversions from surface streams for water transfers and/or exchanges.	Throughout project operations.
6. At times when the Loch Lomond Reservoir is spilling during late spring and summer when surface temperatures in the reservoir are warmer and the cooler 1 cfs fish release below the dam (generally between 11°C and 14°C) may not be sufficient to maintain temperatures in Newell Creek below 21°C, which is within the suitable range for steelhead and coho, the City will release additional flow through the fish release to achieve a maximum instantaneous temperature of less than 21°C as measured in the anadromous reach of Newell Creek and verified at the City stream gage in Newell Creek below the dam.	City responsible for releasing additional flow to achieve specified water temperature at the City stream gage in Newell Creek below the dam.	Throughout project operations.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
STANDARD CONSTRUCTION PRACTICES INCLUDED IN THE PROPOSED PROJECT		
Erosion and Air Quality Control		
1. Implement erosion control best management practices for all construction activities occurring in or adjacent to jurisdictional aquatic resources (resources subject to permitting under Clean Water Act Section 404, Clean Water Act Section 401, Porter-Cologne Water Quality Act Section 13000 et seq., and/or California Fish and Game Code Section 1600). These measures may include, but are not limited to, (1) installation of silt fences, fiber or straw rolls, and/or bales along limits of work/construction areas and from the edge of the water course; (2) covering of stockpiled spoils; (3) revegetation and physical stabilization of disturbed graded and staging areas; and (4) sediment control including fencing, dams, barriers, berms, traps, and associated basins.	City responsible for inclusion of measure in construction specifications and contracts and periodic inspection. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
2. Provide stockpile containment and exposed soil stabilization structures (e.g., Visqueen plastic sheeting, fiber or straw rolls, gravel bags, and/or hydroseed).	City responsible for inclusion of measure in construction specifications and contracts and periodic inspection. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
3. Provide runoff control devices (e.g., fiber or straw rolls, gravel bag barriers/chevrons) used during construction phases conducted during the rainy season. Following all rain events, runoff control devices shall be inspected for their performance and repaired immediately if they are found to be deficient.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
4. Implement wind erosion (dust) controls, including the following: • Use a water truck; • Water active construction areas as necessary to control fugitive dust; • Hydro seed and/or apply non-toxic soil binders to exposed areas after cut and fill operations; • Cover inactive storage piles; • Cover all trucks hauling dirt, sand, or loose materials off site; and • Install appropriately effective track-out capture methods at the construction site for all exiting trucks.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
Water Quality Protection		
5. Locate and stabilize spoil disposal sites and other debris areas such as concrete wash sites. Sediment control measures shall be implemented so that sediment is not conveyed to waterways or jurisdictional resources (resources subject to permitting under Clean Water Act Section 404, Clean Water Act Section 401, and/or California Fish and Game Code Section 1600).	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
6. Minimize potential for hazardous spills from heavy equipment by not storing equipment or fueling within a minimum of 65 feet of any active stream channel or water body unless approved by permitting agencies along with implementation of additional spill prevention methods such as secondary containment and inspection.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
7. Ensure that gas, oil, or any other substances that could be hazardous to aquatic life or pollute habitat are prevented from contaminating the soil or entering waters of the state or of the United States by storing these types of materials within an established containment area. Vehicles and equipment will have spill kits available, be checked daily for leaks, and will be	City responsible for inclusion of measure in construction specifications	Prior to construction, include measure in construction specifications and contracts.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
properly maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. Any gas, oil, or other substance that could be considered hazardous shall be stored in water-tight containers with secondary containment. Emergency spill kits shall be on site at all times.	and contracts, and periodic inspections. Contractor responsible for implementation.	Implement measure during construction. Periodic inspection during construction to ensure no violations.
8. Prevent equipment fluid leaks through regular equipment inspections.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
9. Implement proper waste/trash management.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
In-Channel Work and Fish Species Protection		
10. For facilities that are in or adjacent to streams and drainages, avoid activities in the active (i.e., flowing) channel whenever possible. New ASR facilities shall avoid streams and drainages.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
11. Isolate work areas as needed and bypass flowing water around work site (see dewatering measures below).	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
12. Personnel shall use the appropriate equipment for the job that minimizes disturbance to the channel bed and banks. Appropriately tired vehicles, either tracked or wheeled, shall be used depending on the situation.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
General Habitat Protection		
13. Avoid disturbance of retained riparian vegetation to the maximum extent feasible when working in or adjacent to an active stream channel.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
14. Restore all temporarily disturbed natural communities/areas by replanting native vegetation using a vegetation mix appropriate for the site.	City responsible for replanting.	Upon completion of construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
15. Require decontamination of any used tools and equipment prior to entering water ways.	City responsible for inclusion of measure in construction specifications and contracts, and periodic inspections. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction. Periodic inspection during construction to ensure no violations.
16. A qualified biologist shall conduct a training-educational session for project construction personnel prior to any mobilization-construction activities within the project sites to inform personnel about species that may be present on site. The training shall consist of basic identification of special-status species that may occur on or near the project site, their habitat, their basic habits, how they may be encountered in the work area, and procedures to follow when they are encountered. The training will include a description of the project boundaries; general provisions of the Migratory Bird Treaty Act, California Fish and Game Code, and federal and state Endangered Species Acts; the necessity for adhering to the provision of these regulations; and general measures for the protection of special-status species, including breeding birds and their nests. Any personnel joining the work crew later shall receive the same training before beginning work.	City responsible for hiring qualified biologist or trained designee to conduct training.	Training: Prior to construction and prior to new work crews coming onto the site.
Dewatering		
17. Prior to the start of work or during the installation of temporary water diversion structures, capture native aquatic vertebrates in the work area and transfer them to another reach as determined by a qualified biologist. Capture and relocation of aquatic native vertebrates is not required at individual project sites when site conditions preclude reasonably effective operation of capture gear and equipment, or when the safety of the biologist conducting the capture may be compromised.	City responsible for hiring qualified biologist to be present during dewatering and to implement capture and relocation plan if needed. (Coordinate with the provisions of MM BIO-3 and MM BIO-8.)	Biologist to be present during installation of coffer dam and dewatering. (Coordinate with the provisions of MM BIO-3 and MM BIO-8.)
18. When work in a flowing stream is unavoidable, isolate the work area from the stream. This may be achieved by diverting the entire streamflow around the work area by a pipe or open channel. Coffer dams shall be installed upstream and downstream, if needed, of the work areas at locations determined suitable based on site-specific conditions, including proximity to the construction zone	City responsible for inclusion of measure in construction specifications and contracts and periodic	Prior to construction, include measure in construction specifications and contracts.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
and type of construction activities being conducted. Coffer dam construction shall be adequate to prevent seepage to the maximum extent feasible into or from the work area. Where feasible, water diversion techniques shall allow stream flows to flow by gravity around or through the work site. If gravity flow is not feasible, stream flows may be pumped around the work site using pumps and screened intake hoses. Sumps or basins may also be used to collect water, where appropriate (e.g., in channels with low flows). The work area will remain isolated from flowing water until any necessary erosion protection is in place. All water shall be discharged in a non-erosive manner (e.g., gravel or vegetated bars, on hay bales, on plastic, on concrete, or in storm drains when equipped with filtering devices).	inspection during implementation. Contractor responsible for implementation.	Implement measure during construction when work in flowing stream is unavoidable. Periodic inspection during construction to ensure no violations.
19. If a bypass will be of open channel design, the berm confining the channel may be constructed of material from the channel.	City responsible for inclusion of measure in construction specifications and contracts and periodic inspection during implementation. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction when work in flowing stream is unavoidable. Periodic inspection during construction to ensure no violations.
20. Diversions shall maintain ambient flows below the diversion, and waters discharged below the project site shall not be diminished or degraded by the diversion. All imported materials placed in the channel to dewater the channel shall be removed when the work is completed. Dirt, dust, or other potential discharge material in the work area will be contained and prevented from entering the flowing channel. Normal flows shall be restored to the affected stream as soon as is feasible and safe after completion of work at that location.	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation. City responsible for periodic and post-construction inspection to ensure all imported materials are removed.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction when work in flowing stream is unavoidable. Periodic inspection to confirm compliance with the measure. Post-construction inspection.
21. To the extent that streambed design changes are not part of the Proposed Project, return the streambed, including the low-flow channel, to as close to pre-project condition as possible unless the pre-existing condition was detrimental to channel condition as determined by a qualified biologist or hydrologist.	City responsible for inclusion of measure in construction specifications and contracts.	Prior to construction, include measure in construction specifications and contracts.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
	Contractor responsible for implementation. City responsible for post-construction inspection.	Implement measure during construction when work in flowing stream is unavoidable. Post-construction inspection.
22. Remove all temporary diversion structures and the supportive material as soon as reasonably possible, but no more than 72 hours after work is completed.	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation. City responsible for post-construction inspection to ensure all imported materials are removed.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction when work in flowing stream is unavoidable. Post-construction inspection.
23. Completely remove temporary fills, such as for access ramps, diversion structures, or coffer dams upon finishing the work.	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation. City responsible for post-construction inspection to ensure all imported materials are removed.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction when work in flowing stream is unavoidable. Post-construction inspection.
Other Practices		
24. In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Proposed Project, immediately stop all construction work occurring within 100 feet of the find until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find, and whether the archaeological resources qualify as unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources. The archaeologist will determine whether additional study is warranted. Should it be required, the archaeologist may install	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction.

Table 10-1. Mitigation Monitoring and Reporting Program

Mitigation Measures and Standard Practices	Party Responsible for Implementation	Implementation Timing
temporary flagging around a resource to avoid any disturbances from construction equipment. Depending upon the significance of the find under CEQA (14 CCR 15064.5[f]; California Public Resources Code, Section 21082), the archaeologist may record the find to appropriate standards (thereby addressing any data potential) and allow work to continue. If the archaeologist observes the discovery to be potentially significant under CEQA, preservation in place or additional treatment may be required.	(Coordinate with the provisions of MM CUL-2.)	(Coordinate with the provisions of MM CUL-2.)
25. In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found, immediately notify the lead agency staff and the County Coroner of the discovery. The coroner will provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, Native American, the coroner will notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the Most Likely Descendant from the deceased Native American. Within 48 hours of this notification, the Most Likely Descendant will recommend to the lead agency her/his preferred treatment of the remains and associated grave goods.	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction.
26. Notify adjacent property owners of nighttime construction schedules. A Construction Noise Coordinator will be identified. The contact number for the Construction Noise Coordinator will be included on notices distributed to neighbors regarding planned nighttime construction activities. The Construction Noise Coordinator will be responsible for responding to any local complaints about construction noise. When a complaint is received, the Construction Noise Coordinator shall notify the City within 48 hours of the complaint, determine the cause of the noise complaint, and implement as possible reasonable measures to resolve the complaint, as deemed acceptable by the City.	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction.
27. For construction on undeveloped sites or sites with surrounding trees and other vegetation, internal combustion engine equipment shall include spark arrestors, fire suppression equipment (e.g., fire extinguishers and shovels) must be stored onsite during use of such mechanical equipment, and construction activities may not be conducted during red flag warnings issued by the California Department of Forestry and Fire Protection (CAL FIRE). Red flag warnings and fire weather watches are issued by CAL FIRE based on weather patterns (low humidity, strong winds, dry fuels, etc.) and listed on their website (https://www.fire.ca.gov/programs/communications/red-flag-warnings-fire-weather-watches/).	City responsible for inclusion of measure in construction specifications and contracts. Contractor responsible for implementation.	Prior to construction, include measure in construction specifications and contracts. Implement measure during construction.

INTENTIONALLY LEFT BLANK

This Page Intentionally Left Blank