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

WATER COMMISSION

Regular Meeting

March 1, 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://zoom.us/j/98100431888
- **Facebook:** https://www.facebook.com/SantaCruzWaterDepartment/?epa=SEARCH_BOX

PUBLIC COMMENT:
If you wish to comment during on items 1-8 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.**
  +1 669 900 9128
  +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: **981 0043 1888**
- 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 – 4.3) 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 (Page 1.1)

   Accept the City Council actions affecting the Water Department

2. Water Commission Minutes from February 1, 2021 (Pages 2.1 – 2.7)

   Approve the February 1, 2021 Water Commission Minutes.

3. FY 21 2nd Quarterly Financial Report (Pages 3.1 - 3.6)

   Accept the unaudited FY21 2nd Quarterly Financial Report

4. Information Item - Water Department's Comments on UCSC Long Range Development Plan (Pages 4.1 - 4.3)

Acknowledge the receipt of the Water Department's comments on the Draft Environmental Impact Report for the University of California Santa Cruz 2021 Long Range Development Plan.

Items Removed from the Consent Agenda

General Business (Pages 5.1 – 8.8) 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.

5. Rate Structure Alternatives and Residential Tiers (Pages 5.1 - 5.27)

Receive information about various water rate structures and options for tiers that might be incorporated into rates for various customer classes and provide feedback to City staff and the Raftelis consultant team.

6. Laguna Creek Diversion Retrofit Project, Water Commission Consideration and Recommendation (Pages 6.1 - 64)

Take action to support staff's recommendation to City Council to certify the Final Environmental Impact Report for the Laguna Creek Diversion Retrofit Project; adopt Findings of Fact and a Mitigation, Monitoring, and Reporting Program; and approve the Laguna Creek Diversion Retrofit Project.

7. Urban Water Management Plan – Approach to Water Service Reliability and Drought Risk Assessment (Pages 7.1 – 7.10)

Accept a presentation on the approach to the water service reliability and drought risk assessment in the 2020 Urban Water Management Plan.

8. Reimagining Water Conservation (Pages 8.1 – 8.8)

Receive information analyzing the effectiveness of Santa Cruz Water Department's water conservation programs and policies and provide feedback to staff on ideas to consider related to the future of water conservation.

Subcommittee/Advisory Body Oral Reports

9. Santa Cruz Mid-County Groundwater Agency

10. Santa Margarita Groundwater Agency

Director's Oral Report

Information Items

Adjournment

WATER COMMISSION
INFORMATION REPORT

DATE: 2/23/2021

AGENDA OF: March 1, 2021

TO: Water Commission

FROM: Rosemary Menard, 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:

February 12, 2021

No agenda items to report.

February 26, 2021

Agreement to Extend the Term of the Cooperative Water Transfer Pilot Project for Groundwater Recharge and Water Resource Management Between the City of Santa Cruz and Soquel Creek Water District (WT)

Motion **carried** to authorize the City Manager to execute an extension of the 2016 Agreement for the Cooperative Water Transfer and Purchase and Water Resource Management Pilot Project between the City of Santa Cruz and Soquel Creek Water District in a form approved by the City Attorney, including extending the term of the agreement to May 1, 2026 and increasing the price per million gallons of water transferred from $1,000 to $1,930.

Update of Santa Cruz's Water Shortage Contingency Plan (WT)

Motion **carried** to adopt the 2021 Interim Update of the Santa Cruz Water Shortage Contingency Plan.

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

ATTACHMENTS: None.

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

Water Department

Summary of a Water Commission Meeting

Call to Order: 7:00 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: R. Menard, Water Director (via Zoom); D. Baum, Water Chief Financial Officer (via Zoom); C. Coburn, Deputy Director/Operations Manager (via Zoom); K. Crossley, Senior Professional Engineer (via Zoom); N. Dennis, Principal Management Analyst (via Zoom); M. Kaping, Management Analyst (via Zoom); L. Kay, Associate Professional Engineer (via Zoom); H. Luckenbach, Deputy Director/Engineering Manager (via Zoom); J. Martinez-McKinney, Associate Planner (via Zoom); K. Petersen, Customer Sevice Manager (via Zoom); S. Perez, Principal Planner (via Zoom); B. Pink, Environmental Programs Analyst II (via Zoom); Isidro Rivera, Associate Professional Engineer (via Zoom); K. Fitzgerald, Administrative Assistant III (via Zoom)

Others: Eight members of the public (via Zoom)

1. Election of Officers

Commissioner Engfer opened nominations for Chair of the Water Commission for 2021.

Commissioner Wadlow nominated Commissioner Ryan as Chair of the Water Commission.

Commissioner Schwarm moved to close nominations for Chair. Commissioner Burns seconded.

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

Commissioner Engfer called the vote for Commissioner Ryan as Chair of the Commission for 2021.

VOICE VOTE: MOTION CARRIED

AYES: All
NOES: None
ABSTAIN: None

Commissioner Ryan opened nominations for Vice-Chair of the Water Commission for 2021.

Commissioner Engfer nominated Commissioner Wadlow as Vice-Chair of the Water Commission.

Commissioner Burns moved to close nominations for Chair. Commissioner Páramo seconded.

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

Commissioner Ryan called the vote for Commissioner Wadlow as Vice-Chair of the Water Commission for 2021.

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

Presentation: None.

Statements of Disqualification: None.

Oral Communications: One member of the public spoke.

Announcements: Commissioner Engfer thanked former Commissioner Jim Mekis for his service and contributions to the Water Commission and community.

Consent Agenda

2. City Council Items Affecting the Water Department

3. Water Commission Minutes From February 1, 2021

Commissioner Schwarm moved the Consent Agenda. Commissioner Wadlow seconded.

VOICE VOTE: MOTION CARRIED
AYES: All
NOES: None
ABSTAIN: J. Burks and T. Burns abstained from the February 1, 2021 Minutes.

Items Pulled from the Consent Agenda - None

General Business

4. Summer Water Supply Forecast – First Look

Ms. Menard introduced Mr. Ben Pink for the presentation and discussion of the Summer Water Supply Forecast.

Does the construction at the Newell Creek Dam alter the response to the current rainfall patterns?

- No. We're not keeping the reservoir higher or lower than we otherwise would due to the construction project. That said, there have been several instances this year where reliance on the reservoir was necessary due to construction going on in other parts of the system and this has probably resulted in the reservoir being somewhat lower than it would have been had this not been the case. This affected the lake elevation levels for a short period but there were no other notable side effects.

How is staff preparing to communicate possible restrictions during the summer months to customers?

- We will have an opportunity to introduce this matter to the public when we present the Water Shortage Contingency Plan to City Council in March, but we do not plan to begin any necessary full-scale communications with the public until after the final forecast for the upcoming peaking season has been prepared and presented to the Water Commission and City Council in early April. Should it be necessary to curtail demand based on that forecast, a major communication initiative using multiple approaches will be launched.

Ms. Menard commented that she will be providing an update on the current water supply situation to City Council at the February 9th meeting.

No public comments were received.

5. Preliminary Long-Term Water Demand Forecast Update

Ms. Menard introduced Mr. David Mitchell (M.Cubed) for the presentation and discussion of the Preliminary Long-Term Water Demand Forecast Update.

How is UCSC intending to use local groundwater on its campus?

- The DEIR's hydrology section includes a discussion of a possible use the karst groundwater resource underlying the UCSC campus to augment potable water use on the campus in the future. City staff will be commenting on this section of the DEIR noting that there is a potential for negative impacts to the lower reaches of the San Lorenzo river should the karst groundwater source be tapped to offset UCSC's water demand from the City. Of particular concern would be higher river temperatures should the summertime cold water from karst flows be reduced.

What are potential changes to water demand and use from golf courses?

- Mr. Mitchell responded that since the Pasatiempo Golf Course (Pasatiempo) transitioned to using recycled nonpotable water for irrigation there have been water quality issues that may cause them to shift back to City water at least for a time. Such a shift is not included in this forecast.

Ms. Menard added that the City understands there are issues with the quality of the secondary effluent that may be affecting Pasatiempo's ability to treat it with the new facilities they have invested in so that it meets standards for use as irrigation water.

Ms. Menard commented that the 2015 water demand forecast included a line item for additional long-term conservation and that this is not included in this forecast. This presents a unique set of issues for the City that will be discussed in greater detail at the March Water Commission meeting.

How do anticipated future water rate increases factor into this demand forecast?

- Mr. Mitchell responded that the CIP scenario used in this forecast incorporates rate escalation from the recommended scenario the Water Commission ad hoc subcommittee put together and that the full Commission will be considering in Item 7 later in the agenda. These ad hoc subcommittee's recommended revenue forecast assumptions were used through 2032, the time frame that the CIP work is underway, and following 2032 and through to 2045 the forecast assumes that rates will match inflation.

One public comment was received specifically asking about how equity of access and affordability issues are being considered in the rate planning work.

- Ms. Menard responded that the issue of equity of access and affordability in water rates was discussed during the Water Commission meeting last December and are definitely issues that are being considered in the ongoing work. That said, Prop 218, the state constitutional amendment regulating the process of setting fees and charges for property-related services, prohibits charging customers more than the cost of providing service to their property in order to provide funds to subsidize the cost of providing services to another similarly situated property.

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

6. Presentation of 2021 Capital Investment Projects (CIP)

Ms. Menard introduced Ms. Heidi Luckenbach and Mr. Kevin Crossley for the presentation of the 2021 Capital Investment Projects.

Ms. Jessica Martinez-McKinney presented the Laguna Creek Dam Retrofit project.

What strategies do staff use to avoid conflicting permit requirements from the various regulatory agencies that are involved in this project and what is the status of each?

- Over the last year, we have worked to build relationships with the various regulators where we had the opportunity to provide each one with an overview of our planned projects and the challenges we expected to face with each.
- For this project, a pre-application meeting was held with most of the regulators and allowed us to iron out most foreseen issues before permit applications were submitted. This effort has resulted in having few or no conflicting permit requirements.

- Some of the permits are still in process but we expect to have them issued by the bidding date. We may have to attach them as addenda to the bidding documents if they are completed after the bidding period begins.

Can staff provide Commissioners with the comments and responses to the Draft EIR for the project?

- Yes. The comments and responses will also be included in the final EIR.

What is the purpose of permitting for lighting?

- Lighting is a small component of the project and the purpose is to provide lighting for staff or contractors who need access to the site at night in emergencies.

Have geologists been consulted on whether the project should be delayed due to debris flow risk from the CZU Lightning Complex fire?

- This issue has been considered and we will continue to monitor conditions at the site through the winter and into spring. The infrastructure is being designed to withstand debris flow hazards as well as those that can occur naturally on active channels such as fallen trees.

Mr. Isidro Rivera presented the Newell Creek Dam Inlet/Outlet project.

What are the budget impacts of moving to 24/7 dredging?

- None. We were able to work with the construction management team to shift schedules to avoid any budgetary impacts.

Can the concrete-encased pipe withstand a wildfire?

- Yes, however, only a portion of the pipe is encased in concrete but the remainder of the PVC pipe is buried deep enough into the ground so that it would not be impacted should a fire move through the area.

What are the benefits of partnering with a "Dispute Resolution Board" (DRB) and what is the process for addressing a dispute?

- We preemptively meet with the DRB regularly to keep communication lines with the project team open so that conflicts can be avoided or addressed quickly and civilly. Thus far there have been no major disputes.

Commissioners commended Mr. Rivera and staff on the progress of the Newell Creek Dam project given the major challenges with the coronavirus pandemic and wildfire that occurred last year.

Mr. Lewis Kay presented the Transmission Pipelines: Newell Creek Pipeline (NCP), Coast Pump Station Rehabilitation projects.

What will be the impacts to traffic during the pipeline realignment along Graham Hill Road?

- As might be expected, construction of a pipeline within a Graham Hill Road alignment likely would have impacts on traffic, though the specific characteristics and magnitude of those impacts are not yet known. We will be conducting further studies as the project planning progresses and this information will be used in further planning, design and analysis work. We hope to gain some input from the public scoping meeting that will be held virtually tomorrow at 5:30 pm.

Will the pipeline realignment along Graham Hill Road affect habitats and require additional mitigation measures?

- Environmental field investigations are underway so potential impacts to the surrounding habitat are not fully known at this time.

One public comment was received.

Mr. Kyle Petersen presented the AMI Meter Replacement project.

Could the geo-coding used during the meter box field inventory be used to encourage customers to locate their meters?

- Yes.

After replacing all meters in the system in a short period of time, what will the challenges be for this system after they have been in service for 15-20 years?

- In 15-20 years, the system will have reached the end of its useful life and will again require reinvestment in replacement equipment.

One public comment was received relating to the technology being planned as part of the project.

- Mr. Petersen responded that meter readings have been received through radio signals from transmitters located within meterboxes for many years. These radio transmitters are past their useful life and need replacement; the new transmitters will have the ability to provide data at more frequent intervals which allows for more accurate readings.

7. Recommendations from the Water Commission Ad Hoc Committee on Future Revenue Requirements for Use in Developing Water Rates

Ms. Menard introduced Commissioner Páramo who presented the results and recommendations from the Ad Hoc Committee on Future Revenue Requirements for Use in Developing Water Rates.

When referencing the entire CIP, is staff referring to the project list provided in the agenda packet?

- The analysis the Ad Hoc Committee developed was based on the entire list of CIP projects which includes maintenance projects that are smaller in scale such as the aerators replacement in the Loch Lomond reservoir as well as those that are larger and more complex.

What is the timeline for developing water rates?

- The Cost of Service analysis was completed in 2020 and the next step will be to take the future revenue requirements and allocate costs to each of the customer classes based on how they each use the system. This process defines the amount of revenue that needs to be generated by each customer class, which requires some decision-making on rate design and rate structures. The rate design and rate structure conversation begins in March and will continue through the spring. The current timeline has the Water Commission making recommendations on rates to the City Council in early August and the Council action to initiate the Prop. 218 process in late August. Final action on rates for the next 5 year period would occur in late October.

Does the table of potential future rates reflect the elimination of outside-city surcharge?

- No it does not because it uses the current Inside City rates as a point of departure for the calculations. When draft rates for the future are developed and presented, the elimination of the Outside-City surcharge will be reflected.

Commissioners commended staff for their efforts and participation in this work and that staff continues to remain reflexible should new funding opportunities arise that will mitigate rate increases on customers.

One public comment related to affordability was received.

- Ms. Menard responded that the City is constrained by the regulations of Prop 218 that do not allow for one customer class to subsidize the rates for another customer class. The Water Department does not have a stable source of non-rate revenue to use to support subsidies for low-income customers.

Commissioner Engfer moved the Ad Hoc Subcommittee's recommendation that the Water Commission incorporate scenario 4 into the ongoing work for rate design and development. Commissioner Wadlow seconded.

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

Subcommittee/Advisory Body Oral Reports

8. Santa Cruz Mid-County Groundwater Agency (MGA)
Ms. Menard reported that the MGA has not met and that Councilmember Justin Cummings is the newly appointed City elected official representative on the board and David Baskin will continue to be the second representative. The next MGA meeting will be held on March 18, 2021.

9. Santa Margarita Groundwater Agency (SMGWA)
Commissioner Engfer reported that there was a meeting on January 23, 2021 and groundwater modeling results are being reviewed and will likely lead to the selection of a new climate model. There is also additional work on establishing the problem statement.

Director's Oral Report: Ms. Menard reported that a letter was received from Rick Longinotti related to the Water Department's review of the UCSC Long Range Development Plan (LRDP) and that the Department will not be providing comments on issues regarding LAFCO, as referenced in Mr. Longinotti's letter.

Adjournment Meeting adjourned at 10:05 PM.

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WATER COMMISSION
INFORMATION REPORT

DATE: 2/25/2021

AGENDA OF: March 1, 2021

TO: Water Commission

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

SUBJECT: FY 2021 2nd Quarter Unaudited Financial Report

RECOMMENDATION: That the Water Commission accept the FY 2021 2nd 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. The 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 $10.0 million Rate Stabilization reserve. The Department's LRFP will be updated as a component of the Cost of Service Analysis currently underway and will include Scenario 4 ($650 million CIP over 15 years) developed by the Water Commission's Ad Hoc Subcommittee on Revenue Forecasting and Financial Scenario Planning and approved by the Water Commission.

The data in the Quarterly Financial Report provides a snapshot in time and represents the time period of July 1, 2020 through December 31, 2020. 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 second quarter of FY 2020 and is a snapshot of the transactions posted during the time period of July 1, 2020 through December 31, 2020. 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 are 17% below budgeted amounts. As expected, residential consumption is higher while commercial and UCSC consumption is lower. It is important to note budgeted revenues were based upon the fifth year of rate increases. A six percent increase was scheduled to go into effect on July 1st. 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 expects to receive $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. And a $4,000 grant from the City's Carbon Fund for a water bottle filling station at the Loch Lomond Recreation area slated to be completed this fiscal year.

On December 1, 2020, Water Department staff submitted two 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 $23.5 million. These revenues will be reflected in the 3rd Quarter Financial Report as will the last draw of the remaining $7 million in the 2019 Green water revenue bonds.

The expected reimbursements and grants described above will help improve cash flow and cash reserves.

Operating Expenses

Similar to the drop in revenues, operating expenses are trending 22% below the Adopted Budget. Personnel costs are down due to the unbudgeted 10% unpaid furlough and the eight currently vacant positions. The vacancy rate is approximately 7% of budgeted positions; the budget assumes no vacancies.

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

- Facility rental – internal – is approximately $70,000 under budget. The City Finance Department is making adjustments to allocate the Water Department's rent to the proper account in alignment with the budget.
- Training, Travel and Meetings are under budget by $106,000. Due to COVID-19, this line item is expected to finish the year significantly under budget. Training and meetings are now conducted online, which significantly reduces the cost.
- Governmental Fees are under budget by $116,000. These fees are related to licensing for the Newell Creek Dam, San Lorenzo River and the water utility. Largest fees are paid to the SWRCB and the United States Geological Survey.
- Postage is down $110,000 reflecting a greater reliance on technology due to COVID-induced alternative remote communications.

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

CIP Budget

The pace of CIP spending increased slightly compared to the 1st quarter of FY21 with $7.2M spent in the 1st quarter and an additional $9.2M spent in the 2nd quarter. The largest expenses came from:

- The Newell Creek Dam Inlet/Outlet Replacement Project completed nearly $5.7M in work, consisting mostly of dredging work which started in October.
- The Coast Pump Station 20-inch Raw Water Pipeline Replacement Project completed $1.7M in work with the microtunnel work completed in December.
- The GHWTP Flocculator Rehab/Replacement commenced after a slight delay and completed $346K in work during the 2nd quarter.
- The GHWTP Facility Improvement Project spent $285K primarily on work to finalize the Request For Proposals (RFP) and draft agreement. The RFP was issued to prequalified Design-Builders in December with proposals due in April.

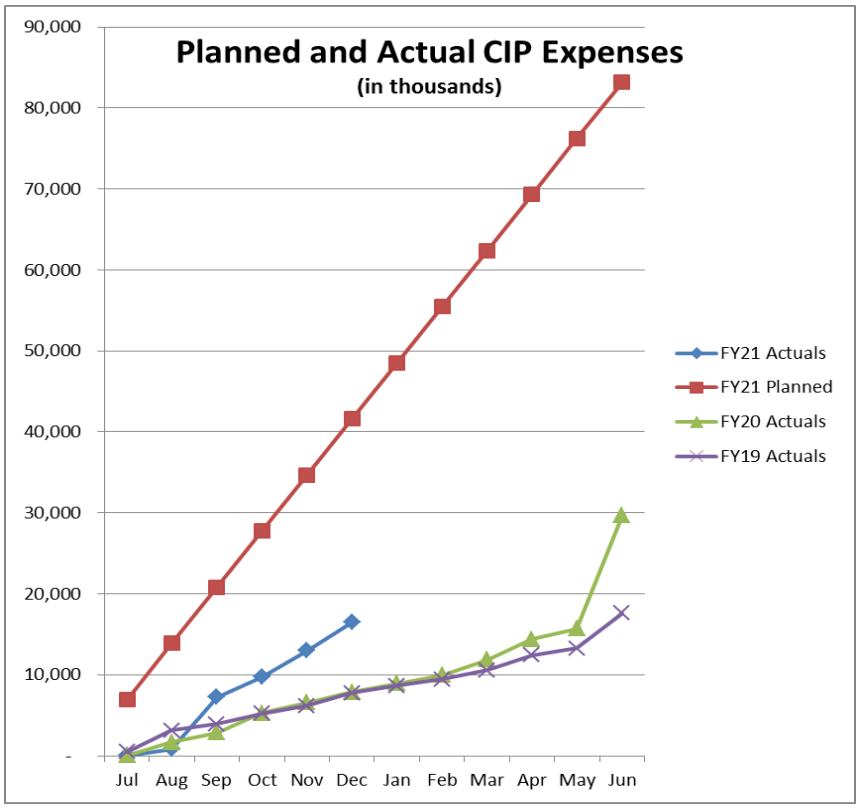
It's worth noting that other projects reached notable milestones during the 2nd quarter:

- Contracts for the design for replacement and realignment of the Felton/Graham Hill and Brackney segments of the Newell Creek Pipeline were awarded. The Brackney segment is our first project to be funded through the Hazard Mitigation Grant Program (HMGP) which may establish us as a viable recipient for future HMGP funding.
- A contract was awarded to Anderson Pacific for construction of the Loch Lomond Reservoir Aeration System foundation.
- Bids were received for the Concrete Tanks Replacement Projects with all bids coming under the engineer's estimate.

Regarding our position of actuals versus budget, actuals remain well under budget and no significant adjustments in total project costs were made during the 2nd quarter as shown below. In January, preliminary work began to create the FY22 CIP budget and such work includes an analysis of the total Budget At Completion (BAC) and planned FY21 expenditures to determine if adjustments should be made. As mentioned above, only a few changes were made to the BAC in the 2nd quarter as shown below:

Project Titles	Previous Budget at Completion	Current Project Budget at Completion	Change increase (descrease)	Reason
Management Reserve	50,000,000	49,650,000	(350,000)	Budget transferred to fund new gate project
GHWTP Gate Entrance Upgrades	-	350,000	350,000	New project
Programmable Logic Controllers	239,057	-	(239,057)	Completed project removed from report
Total change in the Total Budget at Completion			**(239,057)**	

The expectation is that both the total BAC and the planned FY21 expenditures will be adjusted in the 3rd quarter to align with actual work performed in the 1st and 2nd quarters. Currently, the planned FY21 expenditures through 12/31/20 of $41.5M exceed actuals by $25.1M as shown in the following chart.



FISCAL IMPACT: None.

PROPOSED MOTION: Motion to accept the FY 2021 2nd Quarter Financial Report.

ATTACHMENTS:
1. Santa Cruz Water Department Financial Report

SANTA CRUZ WATER DEPARTMENT FINANCIAL REPORT

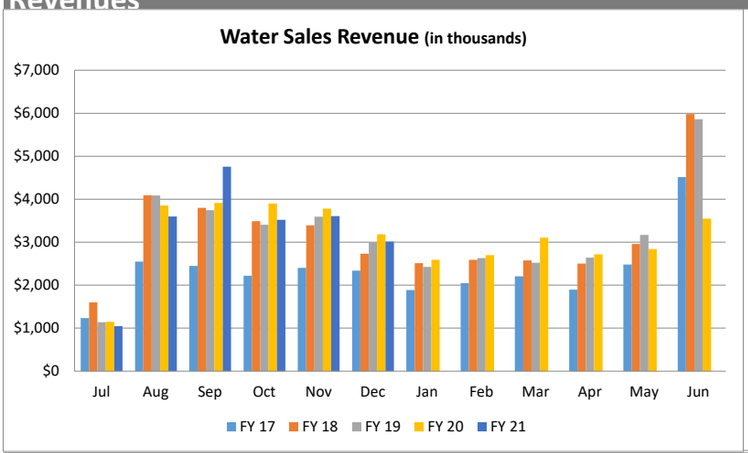
Fiscal Year 2020/21 through December 31, 2020

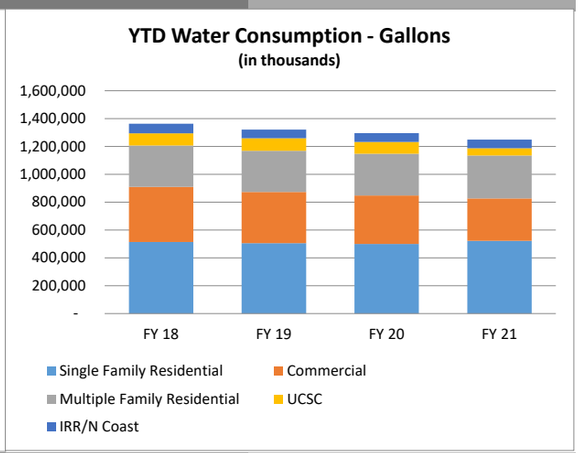
(Unaudited)

Financial Summary

	FY 2021 Adjusted Budget	YTD Budget	Actual	Actual vs. YTD Budget Variance $ +/(-)	Actual vs. YTD Budget Variance % +/(-)
Operating Revenues					
Water Sales	43,969,758	21,984,879	18,746,757	(3,238,122)	(15%)
Other Charges for Services	1,364,861	682,431	594,174	(88,257)	(13%)
Other Revenues	1,020,278	454,733	117,738	(336,995)	(74%)
Grants	375,595	187,798	-	(187,798)	(100%)
Investment Earnings	227,510	113,755	-	(113,755)	(100%)
Total Operating Revenues	46,958,002	23,423,595	19,458,669	(3,964,926)	(17%)
Operating Expenses					
Salaries & Wages	10,591,891	5,295,946	4,680,456	(615,489)	(12%)
Employee Benefits	5,633,192	2,816,596	2,027,417	(789,179)	(28%)
Services and Supplies	16,977,086	8,488,543	6,007,838	(2,480,705)	(29%)
Capital Outlay	281,235	140,618	105,219	(35,399)	(25%)
Debt Service - Principal & Interest	3,317,718	1,658,859	1,593,327	(65,532)	(4%)
Total Operating Expenses	36,801,122	18,400,561	14,414,257	(3,986,304)	(22%)
Net Operating Revenue (Loss)	10,156,880	5,023,034	5,044,413	21,379	0%
Debt Service Coverage (Target >= 1.50x)	3.06x	3.03x	3.17x		

Revenues





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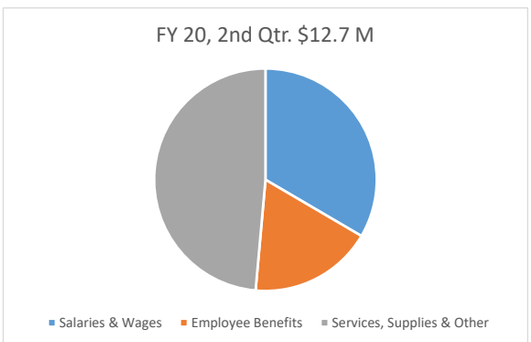

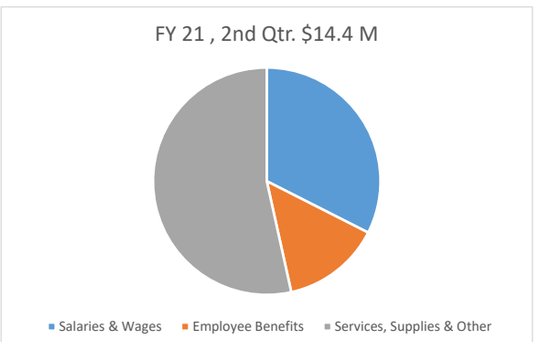

Cash

Fund Balances	YTD Balance	Year End Target Balance
711 - Enterprise Operations	(5,204,061)	8,127,690
713 - Rate Stabilization	9,786,131	10,000,000
715 - System Development Charges	4,217,890	N/A
716 - 90 Day Operating Reserve	6,878,115	8,127,690
717 - Emergency Reserve	3,317,927	3,100,000
718 - Mount Herman June Beetle Endowment	144,749	144,000
719 - Equipment Replacement	716,408	700,000
Days' Cash (Includes only Funds 711 & 716)	21.2	161.2
Days' Cash Target	180.0	180.0

CIP Summary: 2nd Qtr Fiscal Year 2021 Project Titles	Total Project Budget at Completion *(escalated dollars)*	Prior Expenditures thru 6/30/20	Current FY Actuals thru 12/31/20	Remaining Budget	Current Status
WATER SUPPLY RESILIENCY & CLIMATE ADAPTATION PROJECTS					
Water Supply Augmentation Strategy					
Beltz Wellfield Aquifer Storage and Recovery					
ASR Planning	2,038,495	2,623,131	53,561	(638,197)	Planning
ASR Mid County Existing Infrastructure	2,541,849	-	3,883	2,537,966	Planning
ASR Mid County New Wells	20,984,419	-	-	20,984,419	Not Initiated
Santa Margarita Aquifer Storage and Recovery and In Lieu Water Transfers and Exchanges					
ASR Santa Margarita Groundwater	19,572,856	-	-	19,572,856	Not Initiated
ASR New Pipelines	38,430,294	-	-	38,430,294	Not Initiated
In Lieu Transfers and Exchanges	-	-	-	-	Planning
Studies, Recycled Water, Climate Change, Aquifer Storage and Recovery					
Water Supply Augmentation	853,719	383,615	74,638	395,466	Planning
Recycled Water Feasibility Study	890,440	636,469	42,376	211,595	Planning
River Bank Filtratation Study	7,237,233	705,682	134,541	6,397,009	Planning
Subtotal Water Supply Augmentation Strategy	**92,549,305**	**4,348,897**	**309,000**	**87,891,407**	
Subtotal Water Supply Resiliency and Climate Adaptation Projects	**92,549,305**	**4,348,897**	**309,000**	**87,891,407**	
INFRASTRUCTURE RESILIENCY AND CLIMATE ADAPTATION					
Raw Water Storage Projects					
NCD I/O Replacement Project	108,173,686	18,331,907	11,174,205	78,667,574	Construction
Aerators at Loch Lomond	658,840	93,336	7	565,497	Design
Subtotal Raw Water Storage Projects	**108,832,526**	**18,425,243**	**11,174,212**	**79,233,071**	
Raw Water Diversion and Groundwater System Projects					
Laguna Creek Diversion Retrofit	3,152,548	677,750	185,982	2,288,816	Design
North Coast System Majors Diversion Rehab	5,261,308	163,187	-	5,098,121	On-hold
Tait Diversion Rehab/Replacement	6,514,353	205,004	6,978	6,302,371	PD/Feasibility
Coast Pump Station Rehab/Replacement	9,410,810	-	-	9,410,810	Planning
Beltz 10 and 11 Rehab & Development	392,604	186,922	892	204,791	Planning
Felton Diversion PS Assessment	4,194,412	167,685	-	4,026,727	Planning
Beltz WTP Filter Rehabilitation	100,000	-	6,156	93,844	
Subtotal Raw Water Diversion and Groundwater System Projects	**29,026,036**	**1,400,548**	**200,008**	**27,425,480**	
Raw Water Transmission					
Coast Pump Station 20-inch RW Pipeline Replacement	6,633,602	2,658,858	2,484,145	1,490,599	Construction
Newell Creek Pipeline Rehab/Replacement	1,040,180	812,525	50,628	177,027	Environmental
Newell Creek Pipeline Felton/GHWTP	31,043,897	-	33,831	31,010,066	Environmental
Newell Creek Pipeline Felton/Loch Lomond	34,692,061	-	-	34,692,061	Not Initiated
Brackney Landslide Area Pipeline Risk Reduction	5,467,121	66,511	27,494	5,373,116	Planning
North Coast Pipeline Repair/Replacement - Planning	838,000	195,119	3,483	639,397	Planning
North Coast Pipeline Repair/Replacement - Ph 4	17,135,321	-	-	17,135,321	Not Initiated
North Coast Pipeline Repair/Replacement - Ph 5	17,745,746	-	-	17,745,746	Not Initiated
Subtotal Raw Water Transmission	**114,595,928**	**3,733,014**	**2,599,581**	**108,263,333**	
Surface Water Treatment					
GHWTP Tube Settler Replacement	1,662,288	1,309,865	804	351,620	Post Construction
GHWTP Flocculator Rehab/Replacement	1,849,164	278,611	376,442	1,194,111	Construction
GHWTP Concrete Tanks Replacement	50,716,935	5,161,044	133,107	45,422,784	Design
GHWTP Facilities Improvement Project	143,052,542	4,245,433	388,104	138,419,006	Environmental
Subtotal Surface Water Treatment	**197,280,930**	**10,994,953**	**898,456**	**185,387,521**	
Distribution System Storage, Water Main and Pressure Regulation, and Metering Projects					
University Tank No. 4 Rehab/Replacement	6,547,230	114,728	21,377	6,411,125	Planning
University Tank No. 5 Rehab/Replacement	3,958,564	4,061,397	92,964	(195,797)	Post Construction
Pressure Regulating Stations	192,189	171,697	1,995	18,497	Post Construction
Meter Replacement Project	13,068,961	913,729	294,932	11,860,300	Ongoing
Engineering and Distribution Main Replacement Projects	21,155,168	5,770,690	29,098	15,355,381	Ongoing
Distribution System Water Quality Improvements	75,000	17,538	165	57,297	Planning
Facility & Infrastructure Improvements	9,223,400	-	-	9,223,400	Ongoing
Subtotal Distribution Storage, Wmain Pressure Reg, and Metering	**54,220,512**	**11,049,778**	**440,531**	**42,730,203**	
Subtotal Infrastructure Resiliency and Climate Adaptation	**503,955,931**	**45,603,536**	**15,312,787**	**443,039,609**	
OTHER RISK MANAGEMENT AND RISK REDUCTION PROJECTS					
Site Safety and Security					
Security Camera & Building Access Upgrades	499,227	209,991	63,203	226,034	Ongoing
Newell Creek Access Rd Bridge	312,310	287,407	4,743	20,160	Post Constr
Water Quality Lab Upgrades	542,700	-	5,452	537,248	Post Constr
GHWTP Gate Entrance Upgrades *NEW*	350,000	-	-	350,000	Design
Subtotal Site Safety and Security	**1,704,237**	**497,398**	**73,398**	**1,133,442**	
Staff Augmentation					
Water Program Administration [(1)]	27,046,895	-	715,734	26,331,161	Ongoing
Subtotal Staff Augmentation	**27,046,895**	**-**	**715,734**	**26,331,161**	
Contingency					
Management Reserve [(2)]	49,650,000	-	-	49,650,000	Ongoing
Subtotal Contingency	**49,650,000**	**-**	**-**	**49,650,000**	
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	Not Initiated
Subtotal Storage for Emergency and System Repair	**200,000**	**-**	**-**	**200,000**	
Subtotal Other Risk Management and Risk Reduction Projects	**78,601,132**	**497,398**	**789,132**	**77,314,603**	
GRAND TOTAL	**675,106,368**	**50,449,831**	**16,410,919**	**608,245,619**	

[(1)] *Staff augmentation costs are transferred to specific projects during year-end process.*

[(2)] *Management Reserve budget will decrease rather than showing actual expenses.*

WATER COMMISSION
INFORMATION REPORT

DATE: 2/24/2021

AGENDA OF: March 1, 2021

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: Water Department's Comments on UCSC Long Range Development Plan

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RECOMMENDATION: Acknowledge the receipt of the Water Department's comments on the Draft Environmental Impact Report for the University of California Santa Cruz 2021 Long Range Development Plan.

BACKGROUND: University of California Santa Cruz has released the Draft 2021 Long Range Development Plan (LRDP) that will guide the physical development of new academic, housing, and support uses necessary to achieve the campus' mission. The 2021 LRDP establishes a land use framework for academic and administrative space needs, housing, open space, circulation and other land uses that ultimately facilitate the siting of capital projects. Pursuant to the California Environmental Quality Act, a Draft Environmental Impact Report (DEIR), which evaluates the environmental impacts of the 2021 LRDP, has also been released for public review. Comments on the DEIR are due to the university by March 8, 2021.

DISCUSSION: Staff has reviewed and prepared comments on the Draft Environmental Impact Report for the 2021 LRDP. These comments have been provided to the City's Planning and Community Development Department for incorporation into a letter for submittal to the university documenting City comments on the DEIR.

PROPOSED MOTION: Acknowledge the receipt of the Water Department's comments on the Draft Environmental Impact Report for the University of California Santa Cruz 2021 Long Range Development Plan.

ATTACHMENT:
1. Water Department's comments on the Draft Environmental Impact Report for the University of California Santa Cruz 2021 Long Range Development Plan

Santa Cruz Water Department Comments on the
Draft Environmental Impact Report for the
University of California Santa Cruz Long Range Development Plan
February 23, 2021

All city comments are to be compiled into a single letter for submittal as a formal comment on the Draft Environmental Impact Report (DEIR) for the University of California Santa Cruz (UCSC) Long Range Development Plan (LRDP). The Water Department is providing the following comments:

While the DEIR provides a fairly detailed discussion of historic karst geologic and hydrogeologic issues, it is relatively silent on recent developments in natural resource protection planning related to karst. Since the previous environmental review process related to the UCSC LRDP, the San Lorenzo River has been listed for temperature impairment under the Clean Water Act, the City has become obligated to provide additional instream flow for the protection of special-status species, and development of County of Santa Cruz Karst Protection Zone policies has begun.

Specifically, the following issues should be further evaluated in the Final EIR:

-Relationship of the area proposed for potential groundwater development to the regional karst aquifer dynamics warrants more discussion in Chapter 3.10 of the DEIR. The DEIR states: "the assignment of surface water runoff to a particular watershed is based on topographic features of the main residential campus; however, flows captured by the natural subsurface karst aquifer drainage system or by the UC Santa Cruz storm water drainage system may be transferred from one watershed to another in some cases." This is a very important and valid point that understandably exacerbates the evaluation of impacts of the proposed project. On a related note, there have been several significant rainfall years (1998, 2017) and surface runoff from the University has likely changed dramatically since the hydrogeologic investigation in 1989. There is the potential that subsurface flow dynamics have also changed since that time. Furthermore, it also appears that the historic hydrogeologic studies did not identify all karst features in the vicinity; therefore, the evaluation of karst-related impacts is incomplete. For example, seeps at the headwaters of Redwood Creek – a significant lower San Lorenzo River tributary – do not appear to be identified. Finally, there were field and mapping studies performed in order to support recent County of Santa Cruz karst protection efforts that may provide additional background on hydrogeologic dynamics in the region (Nolan 2016). Reference to them in Chapter 3.10 should be included, if only for completeness' sake.

-Water pollution impacts related to stormwater discharge into the karst aquifer and receiving waters' water quality and increased stormwater discharge effects on karst aquifer morphology and flow paths warrant further evaluation in Chapter 3.10. The DEIR clearly states that "New development under the 2021 LRDP could potentially cause new runoff to be diverted to sinkholes." Discharge of any additional runoff could be considered significant in the context of karst protection – especially since some new development is proposed for the area immediately upgradient of the Pogonip Springs. While the DEIR focuses on erosion, additional flow into sinkholes can cause significant changes to flow patterns underground. Communication with surface flow to the karst aquifer is very similar to a surface water system – whereby polluted runoff is effectively directly discharged to receiving waters. Given the aforementioned difficulty in understanding subsurface hydrogeologic dynamics and incomplete data on karst features, the analysis of impacts – specifically with regard to the lower San Lorenzo River and its associated beneficial uses – needs further evaluation.

-County of Santa Cruz Karst Protection Zone policies warrant exploration in Chapter 3.11. These policies – while in their infancy – have recently begun to be implemented in the County code and should be evaluated for relevance to the project. For more information please see the following link: http://santacruzcountyca.iqm2.com/Citizens/Detail_LegiFile.aspx?ID=2578&highlightTerms=karst

-Potential use of karst-derived groundwater warrants exploration in Chapter 3.11. As the DEIR correctly states repeatedly, karst groundwater often flows through solution channels. Given the stark differences in production potential of the various wells (as reported in the DEIR and also as anecdotally accounted by Dr. Gerald Weber), it is quite likely that monitoring wells identified for groundwater extraction potential on the campus are located within these solution channels. Given that California Water Law requires valid water rights in order to put water that flows through confined channels into beneficial use, the status of the San Lorenzo River and tributaries as a fully-appropriated system (with regard to water rights), and the potential impacts on other, senior water rights holders in areas affected by reduction in flow from the karst aquifer underlying the University (such as the City of Santa Cruz), evaluation of the University's water rights obligations seems appropriate.

-Groundwater extraction impacts on lower San Lorenzo River biotic resources warrants further evaluation in Chapter 3.5. Dry season and dry year hydrology, as well as dry season water temperatures in the lower river can be limiting to special-status species such as coho salmon and steelhead trout. Again, given the aforementioned difficulty in understanding subsurface hydrogeologic dynamics and incomplete data on karst features, the analysis of impacts – specifically with regard to the lower San Lorenzo River instream flows and temperature dynamics – needs further evaluation.

-Impacts on the City of Santa Cruz water system related to potential reduction in karst springs discharge to the lower San Lorenzo River also seems warranted in Chapter 3.17. Again, the San Lorenzo River is a fully-appropriated stream (with regard to water rights) during the dry season. Reduction in flow from Pogonip and Redwood Creeks (as well as smaller karst-derived tributary flows to the lower San Lorenzo River) could have negative effects on the City's ability to divert at our primary diversion at Tait Street (also known as the Tait Diversion or Crossing Street Diversion). While it may be that the proposed use of groundwater on campus is ultimately determined to have negligible effects on San Lorenzo River flows and water quality, it is not clear from the existing analysis that is so.

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WATER COMMISSION
INFORMATION REPORT

DATE: 2/25/2021

AGENDA OF: March 1, 2021

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: Water Rate Structures and Rate Tiers

RECOMMENDATION: That the Water Commission receive information about various water rate structures and options for tiers that might be incorporated into rates for various customer classes and provide feedback to City staff and the Raftelis consultant team.

BACKGROUND: During much of calendar year 2020, Water Commissioners worked with City staff and the Raftelis Consulting team staff on an update to the water cost of service analysis along with providing inputs on key policy issues such as inside-outside surcharges, elevation surcharges, and system development charges. Following the Water Commission's action at its February 1, 2021 meeting to recommend a revenue forecast for the next five-year rate period, work can now begin on developing water rates for the various customer classes.

DISCUSSION: Over the coming months, Commissioners will be presented with information about the Water Department's existing rate structure as well as have an opportunity to learn about, discuss and provide feedback on the existing and various alternate water rate structures that could be considered as potential strategies for meeting the priority water pricing objectives that the Water Commission worked on last spring. An additional and similar topic for presentation and discussion is tier structures.

At the March 1, 2021 meeting, the Raftelis consulting team will provide a presentation on rate structures and options for rate tiers. From this discussion, Commissioners will be asked to *select at least one additional* rate structure option that will be used in developing draft rates for Commission review. The results from this work will be presented at the Water Commission meeting in May, by which time information gleaned from the customer panels and customer portal efforts will be available for presentation and discussion by Commissioners. The current schedule would have the Water Commission taking action on recommendations to the City Council on a rate structure and proposed rates in August.

FISCAL IMPACT: None at this time

PROPOSED MOTION: No motion needed – receive presentation and provide feedback to City staff and the Raftelis Consulting team on water rate structures and options for water rate tiers.

ATTACHMENTS:
1. Raftelis Presentation

City of Santa Cruz

Water Cost of Service and Rate Study

Water Commission Meeting

March 1, 2021

RAFTELIS

CITY OF SANTA CRUZ

Agenda

1. Rate Structure Alternatives
2. Residential Tiers
3. Policy Discussion

Rate Structure Alternatives

Current Rate Structure

Fixed Components

- Ready-to-serve charge
  - Based on meter size
- Private fire ready-to-serve charge
  - Flat charge per month

An Outside City surcharge of 14.5% is applied to all components, except for the rate stabilization fee

Variable Components

- Quantity charge / infrastructure fee
  - Residential – 4 tiers
  - Commercial, North Coast, UCSC – uniform
  - Irrigation – 3 tiers based on water budget
- Elevation surcharge
- Rate stabilization fee

Review of Pricing Objectives

Importance Rankings	Sub-Objectives	Average	Variance
Most Important	Supports affordability for essential use	3.6	2
	Enhances revenue sufficiency	4.6	5
	Facilitates equitable access to water	5.1	3
Very Important	Allocates capital costs equitably	6.9	4
	Meets the terms and conditions for the Long Term Financial Plan	7.0	6
	Promotes efficient water use	7.7	4
	Maintain transparency regarding capital needs	7.9	4
	Provides tool for drought management action plan	8.1	3
Important	Is simple to communicate	9.1	2
	Promotes rate stability	9.1	2
	Promotes conservation	9.7	4
	Enhances revenue stability	10.1	3
Least Important	Minimizes overall customer impacts	12.4	3
	Is based on best practices and industry standard methodologies	14.4	2
	Accounts for individual needs	14.9	4
	Eases implementation	14.9	3
	Eases administration	15.3	1

Policy Themes

- Policy themes were identified in Most Important and Very Important objectives
  1. Ensures water for essential use is affordable to all customers
  2. Maintains transparency and equity for capital and water reliability needs
  3. Provides sufficient revenues to meet operating, capital, and customer service level needs

- Concern of staff is administrative ease given limited resources

Potential Alternatives

- Raftelis will develop rates under the current rate structure and selected alternative rate structures
- Alternatives include:
  - Increasing the fixed charge
  - Charging the Infrastructure Reinvestment Fee (IRF) on the property tax roll, based on meter size
  - Individualized fixed peak charge
  - Zero tier allotment

Increasing Fixed Charge

- Currently, less than 10% of revenues are from fixed charges, which exposes the utility to revenue instability
- Increasing the fixed charge can provide revenue stability in instances of:
  - Reduced water use due to drought conditions
  - Fluctuations in water consumption patterns
- However, this can potentially increase impacts to lower volume users

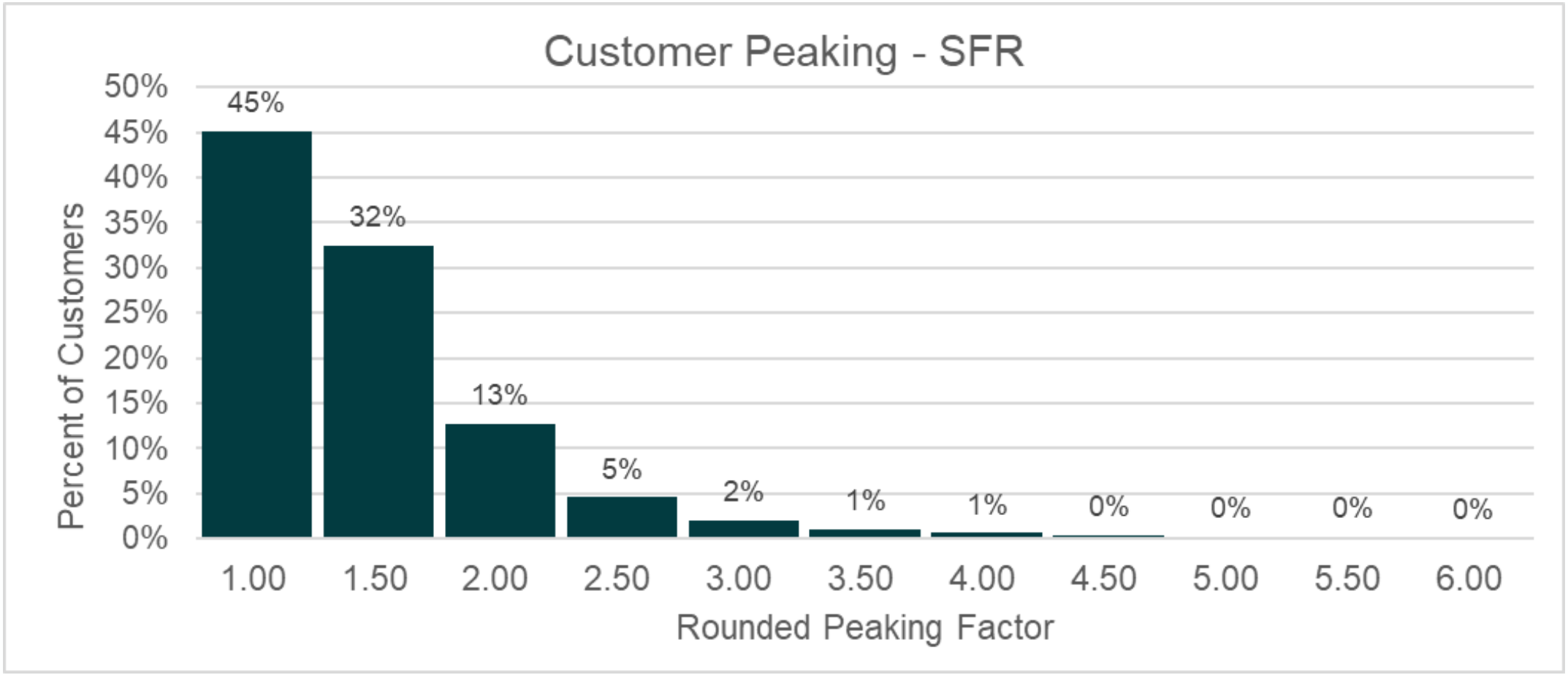
Infrastructure Reinvestment Fee

- The IRF supports reinvestment in critical infrastructure projects and is currently a volume-based charge
- Infrastructure reinvestment costs can be recovered through a fixed, meter-based charge on the property tax roll, which can:
  - Increase revenue stability
  - Reduce water bills for most vulnerable households
  - Ensure the City recovers sufficient revenue to fund infrastructure needs
  - Enhance credit rating of the agency
- Potential concerns with implementing a charge on the tax roll

Individualized Fixed Peak Charge

- Option to include an additional fixed charge (separate from ready-to-serve charge) based on individualized peaking for each customer
- Customers that peak in the summer will pay for the required capacity throughout the year, which can:
  - Address equity concerns with summer rentals / large summer users
    - Currently these customers get a “break” during the winter month as high percentage of the bill is from the consumption charge
  - Address affordability / conservation concerns
    - Individuals that use a low amount of water will see a lower high throughout the year
  - Be difficult to administer and implement

Individualized Fixed Peak Charge



Zero Tier Allotment

- A “zero tier allotment” provides some units of water that is included in the ready-to-serve charge, which can:
  - Provide affordable water for essential use
  - Cause issues with defensibility under Proposition 218

- Proposition 218 requires that the costs to provide service are aligned with the rates charged to customers
  - A zero tier allotment means that customers are paying for water that they might not use in their ready-to-serve charge

Policy Ranking of Rate Options

Policy Objectives	Increasing Fixed Charge	IRF on Tax Roll	Individualized Peaking Charge	Zero Tier Allotment
Affordability for essential use	★	★★	★★★	★★
Transparency and equity	★★	★★	★★	★★
Revenue sufficiency and stability	★★★	★★★	★★★	★
Ease of administration	★★★	★★	★	★★★

Residential Tiers

Proposition 218 Requirements

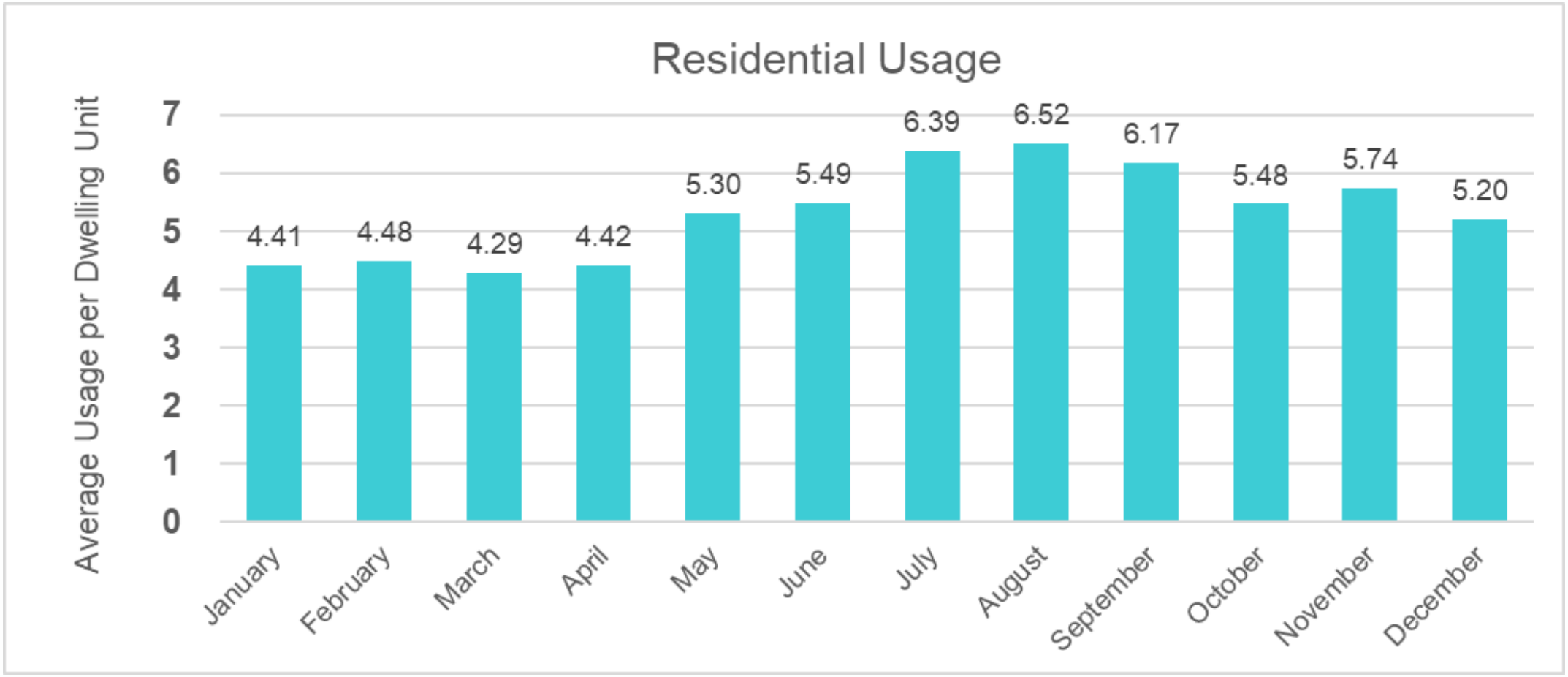
- Compliance with Proposition 218 requires that the rates charged to each customer are aligned with the cost to provide water service to that customer
- This “nexus” applies to customer classes, but also to tiers
  - Tier definitions should not be arbitrary, but rather be based on a clear and defensible methodology
  - Tiers are treated as a “sub-class” within a cost of service analysis

Existing Residential Tiers

Tiers	Tier Definition	Current Tiers
Tier 1	Average Winter	0 to 5 ccf
Tier 2	Average Spring/Fall	6 to 7 ccf
Tier 3	Average Summer	7 to 9 ccf
Tier 4	Above Tier 3	10 ccf and above

- Tier definitions were developed in prior rate study
- Residential tiers are based on per dwelling unit usage

Average Usage by Month (FY 2019)



Alternative Tier Options

- Three tiers based on average winter and summer use per dwelling unit
  - Winter = usage in December through February
  - Summer = usage in June through August
- Two tiers based on median water use per dwelling unit
- Tier 1 based on household density
  - Aligned with water shortage contingency plan

Household Size Challenge

- Santa Cruz's transient population creates challenges in determining household size each year
- An example involves students at UCSC:
  - Current enrollment – approximately 19,000 students
  - Approximately 50% live off campus
  - Resulting in 9,500 people moving almost every year
  - Population of Santa Cruz is approximately 64,500
  - Meaning: 15% of Santa Cruz's population moving every year – only accounting for students at UCSC

Alternative Tiers

Tiers	Current Tiers	Three Tier Option	Two Tier Option	Household Size
Tier 1	0 to 5 ccf	0 to 5 ccf	0 to 4 ccf	40 gpcd x household size
Tier 2	6 to 7 ccf	6 to 7 ccf	5 ccf and above	Above this amount
Tier 3	7 to 9 ccf	8 ccf and above		
Tier 4	10 ccf and above			

- Three Tier option
  - Tier 1 = average winter
  - Tier 2 = average summer
- Two Tier option
  - Tier 1 = median use

Policy Discussion

Policy – Rate Structure Alternatives

- Besides the current rate structure, which rate structure alternative should Raftelis evaluate?
  1. Increase fixed charge
  2. IRF based on meter size, charged on property tax roll
  3. Individualized fixed peaking charge
  4. Zero tier allotment

Policy – Residential Tiers

- Which residential tier option should Raftelis evaluate?
  1. Three tier option based on average winter/summer use
  2. Two tier option based on median annual use
  3. Tier 1 based on household size

RAFTELIS

Thank you!

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Usage in Tiers (FY 2019)

Tiers	Current Use (ccf)	Current % of Total	Three Tier Use (ccf)	Three Tier % of Total	Two Tier Use (ccf)	Two Tier % of Total
Tier 1	1,538,755	79%	1,538,755	79%	1,383,091	71%
Tier 2	182,362	9%	182,362	9%	571,205	29%
Tier 3	92,503	5%	233,179	12%	0	0%
Tier 4	140,676	7%	0	0%	0	0%
Total	**1,954,296**	**100%**	**1,954,296**	**100%**	**1,954,296**	**100%**

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WATER COMMISSION
INFORMATION REPORT

DATE: 02/25/2021

AGENDA OF: March 1, 2021

TO: Water Commission

FROM: Jessica Martinez-McKinney, Associate Planner

SUBJECT: Laguna Creek Diversion Retrofit Project, Water Commission Consideration and Recommendation

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RECOMMENDATION: That the Water Commission take action to support staff's recommendation to City Council to certify the Final Environmental Impact Report for the Laguna Creek Diversion Retrofit Project; adopt Findings of Fact and a Mitigation, Monitoring, and Reporting Program; and approve the Laguna Creek Diversion Retrofit Project.

BACKGROUND: Since 2019, staff has been implementing an agreed-upon approach whereby the Commission provides, as appropriate, recommendations to the City Council on project elements prior to subsequent action by City Council. At its February 2021 meeting, the Commission received a staff report, aligned with the approach, on the Laguna Creek Diversion Retrofit Project whose environmental documents are ready for City Council approval. The Laguna Creek Diversion Retrofit Project final Environmental Impact Report will be on the Council's March 9th agenda.

DISCUSSION: At the February 1st Commission meeting, staff presented the project as part of Agenda Item 6, Presentation of 2021 Capital Investment Projects. The Commissioners asked several questions about the item (the staff report is provided for reference as Attachment 1); staff responses are captured in the meeting minutes.

Attached is the City Council Staff report for the project and two resolutions. With these documents, the Water Commission has received information on the purpose, need, cost, scope, schedule, and environmental impacts of the project. With the Commission's recommendation, the project should proceed as scheduled, the next step of which would be for City Council to certify the Final EIR and approve the project. The project would be put out to bid in March, following City Council action to approve the plans and specifications.

FISCAL IMPACT: There is no fiscal impact associated with this item and the requested action. The cost of the project is being incorporated into the Department's financial planning efforts.

PROPOSED MOTION: Take action to support staff's recommendation to City Council to certify the Final Environmental Impact Report for the Laguna Creek Diversion Retrofit Project; adopt Findings of Fact and a Mitigation, Monitoring, and Reporting Program; and approve the Laguna Creek Diversion Retrofit Project.

ATTACHMENT(S):

1. Item 6 of the February 1, 2021 Water Commission Meeting: https://ecm.cityofsantacruz.com/OnBaseAgendaOnline/Documents/ViewDocument/1.INFORMATION%20REPORT%2C%20LAGUNA%20CREEK%20DIVERSION%20RETROFIT%20PROJECT%2C%20APPROVAL%20PROCESS.pdf?meetingId=1608&documentType=Agenda&itemId=11266&publishId=12724&isSection=false
2. City Council Staff Report, Laguna Creek Diversion Retrofit Project – Final Environmental Impact Report, Project Approval, and Authorization to Bid
    a. Figure 3-2, excerpted from the Environmental Impact Report
    b. Resolution certifying the Final Environmental Impacts Report for the Laguna Creek Diversion Retrofit Project
    c. Resolution adopting Findings of Fact and a Mitigation Monitoring and Reporting Program and approving the Laguna Creek Diversion Retrofit Project
    d. Draft and Final Environmental Impact Report for the Laguna Creek Diversion Retrofit Project (available for review online at https://www.cityofsantacruz.com/waterenvdocs)
    e. Project Plans, Specifications, and Contract documents - Available online https://www.cityofsantacruz.com/government/city-departments/water/engineering/santa-cruz-water-program

CITY COUNCIL
AGENDA REPORT

DATE: February 25, 2020

AGENDA OF: March 9, 2020

DEPARTMENT: Water

SUBJECT: Laguna Creek Diversion Retrofit Project – Final Environmental Impact Report, Project Approval, and Authorization to Bid (WT)

RECOMMENDATION: Resolution certifying the Final Environmental Impact Report for the Laguna Creek Diversion Retrofit Project.

Resolution adopting Findings of Fact and a Mitigation, Monitoring, and Reporting Program and approving Laguna Creek Diversion Retrofit Project.

Motion to approve the Plans and Specifications for Laguna Creek Diversion Retrofit Project, authorize staff to advertise for bids, and authorize the Water Director to approve change orders within the approved project budget. The City Manager is hereby authorized and directed to execute the contract as authorized by Resolution No. NS-27,563.

BACKGROUND:
The City's Laguna Creek Diversion Facility (Facility) is an important source of raw water to the North Coast System, which provides a combined 15 to 35 percent of the City's overall water supply and enhances system-wide operational flexibility due its favorable water quality and year-round reliability.

The Facility was constructed in 1890 and originally included a dam and diversion flume constructed from native stone and a pipeline constructed of cast iron. Within a few years of construction the issue of sedimentation became apparent, and today the dam continues to impound sediment and debris due to intermittently clogged sediment control bypass valves, and the streambed has aggraded to the crest of the dam. Existing strategies to address sedimentation is labor-intensive and can impact habitat complexity in the downstream reaches of Laguna Creek. In addition, the existing intake screen panels are aged and were installed prior to current regulatory requirements for screening of nonanadromous fish species. Other Facility constraints include the lack of permanent fall-protection infrastructure for use by staff during dam maintenance. Finally, the City's Draft Anadromous Salmonid Habitat Conservation Plan (HCP) lists improvements at the Facility as a biological objective and requires implementation of a project within 10 years of the signed Incidental Take Permit. The proposed Laguna Creek Diversion Retrofit Project (Proposed Project) is intended to address the environmental, operational and safety constraints at the site as well as the biological objective in the draft HCP.

In 2018, Council authorized execution of a professional services agreement in the amount of $512,039, which was awarded to Dudek to provide environmental review and permitting support including the preparation of standalone technical studies, field surveys, and analysis to satisfy the requirements of California Environmental Quality Act (CEQA) and project permitting.

In 2018 Council authorized execution of a professional services agreement in the amount of $173,000, which was awarded to Black and Veatch, to conduct a condition assessment and conceptual design for improvements at two City diversion facilities – at Laguna Creek and Majors Creek. The following contract amendments were subsequently authorized:

- July 2019: Amendment 1 in the amount of $299,740 to provide detailed design, bid support, and construction phase services.
- December 2019: Amendment 2 in the amount of $15,164 to provide surveying and mapping services.
- February 2020: Amendment 3 in the amount of $25,680 to provide additional detailed design services.

To improve the bidding pool to meet the specialized nature of this work, the Water Department developed a prequalification process to ensure highly-qualified contractors were identified early in the process to bid on the project. Contractors were evaluated based on their relevant past project experience and technical expertise and ability to meet the City's financial, safety, and project experience requirements. Ten firms submitted Statements of Qualifications, and eight successfully passed the prequalifying requirements.

The following eight contractors have been prequalified to bid on the project:

- Gordon N. Ball, Inc. (Alamo, CA)
- Con-Quest Contractors, Inc. (San Francisco, CA)
- James C. Cushman, Inc. (Goleta, CA)
- Granite Rock Company (Watsonville, CA)
- McGuire and Hester Corp (Oakland, CA)
- Power Engineering Construction Company (Alameda, CA)
- Shimmick (Oakland, CA)
- Syblon Reid (Folsom, CA)

The following three contractors submitted Statements of Qualifications but failed to meet one or more of the requirements:

- Mountain Cascade, Inc. (Livermore, CA)
- Anderson Pacific Engineering Construction, Inc. (Santa Clara, CA)

In September 2020, the City released the Draft Environmental Impact Report (EIR) for the Laguna Creek Diversion Retrofit Project and is today seeking certification of the Final EIR for the project. The EIR was prepared in accordance with the provisions of the California Environmental Quality Act (CEQA). The project is a critical component of the Water Department's Capital Improvement Program and necessary to protect the City's ability to deliver drinking water to its customers.

DISCUSSION:
The proposed project would consist of retrofitting the existing Laguna Creek Diversion intake, replacement of the sediment bypass system, and construction of other associated improvements. The Coanda screen technology is an efficient way of screening fine materials from diverted water with minimal clogging and maintenance. The design and orientation of the screen would allow the City to divert water independent of conditions behind the dam. The new system would be designed to allow for the movement of sediment past the dam in sync with the hydrology of the creek by using the creek energy present during high streamflows, resulting in gravel deposits downstream to benefit downstream fisheries and aquatic habitats. The Coanda screen would provide appropriate fish screening per current regulatory requirements and the new diversion infrastructure would allow for finer control of diversion rates enhancing the City's ability to meet beneficial in-stream flow releases and provision of ramping flows (controlled changes in downstream water levels so that fish do not become stranded).

The project is comprised of the following primary components (see attached Figure 3-2, excerpted from the Environmental Impact Report):

- Abandonment of the existing intake structure, installation of bypass piping to the existing flume, and filling the existing intake structure with concrete;
- Construction of a new intake structure at the downstream face of the dam (the existing dam will stay largely intact);
- Installation of a Coanda Screen at the new intake structure;
- Construction of a new valve vault;
- Installation of new 18-inch diversion piping and connection of the diversion pipeline to the existing pipeline;
- Installation of new blowoff piping and a control valve;
- Installation of streambank protection; and
- Installation of new concrete stairs, access hatches, site lighting, and safety provisions such as handrails and fall arrest features.

Construction activities would generally include the following phases: improvement of access roads, site preparation, and mobilization; installation of the cofferdam and temporary creek bypass system; construction of the Coanda screen intake structure, including dam preparation, foundation work, and concrete formwork, and installation of the intake screen, piping, and valves; modification of the existing intake and sediment-control valves; installation of the valve vault; installation of electrical; installation of the access stairs and riprap bank stabilization; and startup and testing, site restoration, and construction closeout. No blasting or pile-driving is required for construction.

The proposed project would require the use of heavy equipment such as excavators, drill rigs, forklifts, graders, tractors, loaders, backhoes, dumpers, and generators. Haul trucks would be used to transport materials to the site and to transport spoils off-site to a permanent disposal location. Water trucks would also be used at the site.

The tentative project schedule is as follows:

- City Council Approval: March 9, 2021
- Bid period: March 10 – March 30, 2021
- Intent to Award: April 2, 2021
- Protest Period: April 6 – 12, 2021
- Award: April 13, 2021
- Notice to Proceed: April 28, 2021
- Construction: June 2021 – November 2021

Construction would occur in 2021 upon completion of the environmental review process, approval of the Proposed Project by the City Council, and acquisition of the necessary permits. The duration of construction would occur over approximately 3 months between June and November 2021. Construction work would be performed from 7:00 a.m. to 5:00 p.m. on weekdays, while all noise-generating activities are limited to 8:00 a.m. to 5:00 p.m. If it is required, work outside of these hours would require approval from the Water Director. Following completion of the project, the project sites will be restored to existing condition.

Complete project plans and specifications for bidding will be provided to the prequalified contractors and are available for viewing at https://www.cityofsantacruz.com/government/city-departments/water/engineering/santa-cruz-water-program.

Environmental Review
An Environmental Impact Report (EIR) was identified as the most appropriate level of environmental review and was prepared for the Proposed Project in accordance with the California Environmental Quality Act (CEQA). Comments on the scope and content of the EIR were accepted during the Notice of Preparation (NOP) of the EIR public review period from March 16, 2020 to April 15, 2020. The NOP was circulated to the State Clearinghouse, to local, regional, and federal agencies, to organizations and interested citizens that have requested notification for City projects, and the Water Commission. Additionally, the NOP was circulated to owners of properties contiguous with the project site. The NOP was also published in the Sentinel on March 15, 2020. The NOP was also made available at the Water Department Engineering Counter, and online. A public scoping meeting was held on March 31, 2020. Comments were received from CAL FIRE, the Native American Heritage Commission and several individuals.

The Draft EIR was published and circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day public review period from September 18, 2020 through November 2, 2020. The Draft EIR was filed at the State Clearinghouse and a Notice of Availability for the Draft EIR was sent to the entities listed above. A notice about the availability of the Draft EIR was published in the Sentinel on September 20, 2020. The Draft EIR was also made available at the same locations listed above under Scoping. Two public meetings in the format of online webinars were held on Wednesday, October 14, 2020 at 2:00 p.m. and 6:30 p.m. to provide information on the Proposed Project and to take public written comments on the Draft EIR.

The EIR includes an analysis of the following environmental issue areas:
- Aesthetics
- Agriculture and Forestry Resources

- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire
- CEQA-Required Sections: Significant Unavoidable Impacts, Significant Irreversible Changes, Growth Inducement, Cumulative Impacts, and Alternatives

No significant unavoidable impacts were identified in the Draft EIR, and mitigations were proposed for all potentially significant impacts to reduce those impacts to a level of less than significant.

A total of three letters commenting on the Draft EIR were received during the public review period. Letters were received from the California Department of Fish and Wildlife, County of Santa Cruz, and one individual. 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 or in response to the public comments.

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 or in response to the public comments. Revisions to text include:

- Adjusted Construction Schedule. The start of construction for initial site preparation activities were adjusted to occur as early as March 2021, after completion of permitting where needed. The Project Description previously stated that activities would not start earlier than June 2021.
- Additional On-Site and Off-Site Staging Areas. An additional temporary staging area will be established along a portion of the west access road. Mitigation measure, MM BIO 2, has been updated to reflect the minor increase of direct temporary impacts that require compensatory mitigation. In addition to the on-site staging areas, off-site staging areas on

City of Santa Cruz property may be used for construction worker parking and/or storage of materials.

- Addition of Cultural Resources Awareness Training. Mitigation measure, MM CUL-2, has been expanded to include a cultural resources awareness training for all project construction personnel.

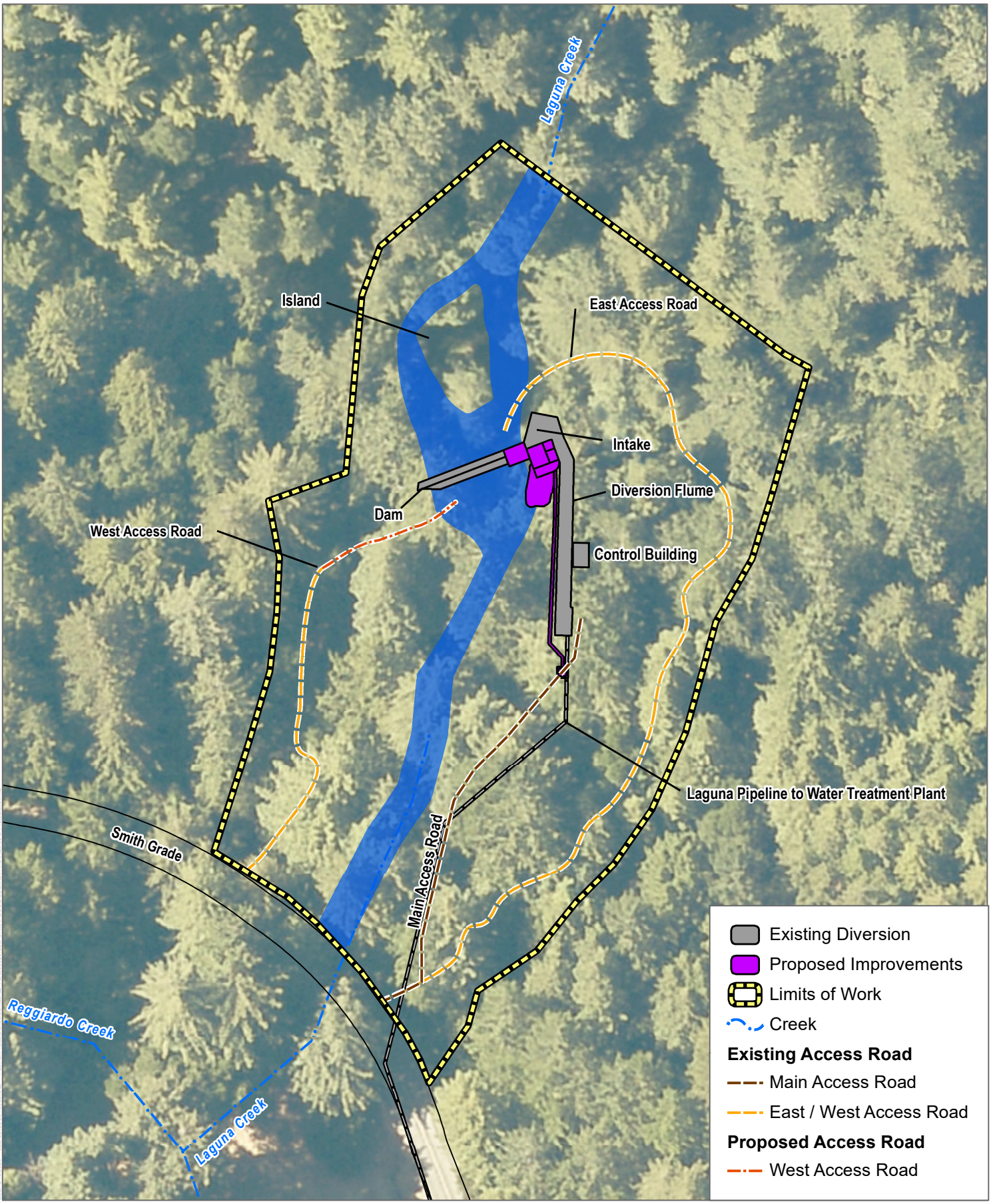
The Water Commission has received information on the purpose, need, cost, scope, schedule, and environmental impacts of the project and has found the analyses to be sound. With the Water Commission's comprehensive review of project and support of staff's recommendation, the next step would be for City 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 Laguna Creek Diversion Retrofit Project and (2) adopt Findings of Fact and a Mitigation Monitoring and Reporting Program and approve the Laguna Creek Diversion Retrofit Project.

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 to be approved by the City for project implementation. The engineer's estimate for construction of this project is $1,744,00. Funds for work to be performed during FY21-FY22 are available in the Water Department's current Capital Improvement Program (CIP) budget, project c701801, Laguna Creek Diversion Retrofit Project.

Prepared by:	Submitted by:	Approved by:
Jessica Martinez-McKinney Associate Planner	Rosemary Menard Water Director	Martín Bernal City Manager

Attachments:

1. Figure 3-2, excerpted from the Environmental Impact Report
2. Resolution certifying the Final Environmental Impacts Report for the Laguna Creek Diversion Retrofit Project
3. Resolution adopting Findings of Fact and a Mitigation Monitoring and Reporting Program and approving the Laguna Creek Diversion Retrofit Project (including two Exhibits)
4. Draft and Final Environmental Impact Report for the Laguna Creek Diversion Retrofit Project (available for review online at https://www.cityofsantacruz.com/waterenvdocs)
5. Project Plans, Specifications, and Contract documents - Available online https://www.cityofsantacruz.com/government/city-departments/water/engineering/santa-cruz-water-program



SOURCE: ESRI 2020, City of Santa Cruz 2020, Black & Veatch 2020

DUDEK

0 35 70 Feet

FIGURE 3-2

Project Site

Laguna Creek Diversion Retrofit Project - EIR

RESOLUTION NO. NS-xx,xxx

RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF SANTA CRUZ CERTIFYING THE FINAL
ENVIRONMENTAL IMPACT REPORT FOR THE
LAGUNA CREEK DIVERSION RETROFIT PROJECT

WHEREAS, the City of Santa Cruz ("City") proposes to implement the Laguna Creek Diversion Retrofit Project (the "Project"); and

WHEREAS, pursuant to Public Resources Code section 21067 of the California Environmental Quality Act (Pub. Res. Code §§ 21000 et seq.) ("CEQA") and section 15367 of the State CEQA Guidelines (Cal. Code Regs, tit. 14, § 15000 et seq.), the City is the lead agency for the proposed Project; and

WHEREAS, a Notice of Preparation ("NOP") of an Environmental Impact Report ("EIR") for the Project was issued by the Water Department of the City of Santa Cruz on March 16, 2020; and

WHEREAS, an EIR Scoping Meeting was held on March 31, 2020 to receive comments regarding the scope of issues to be addressed in the EIR; and

WHEREAS, a Draft Environmental Impact Report ("DEIR" or "Draft EIR") was prepared and issued for agency and public review and comment on September 18, 2020, for a 45-day review period that ended on November 2, 2020; and

WHEREAS, three (3) comment letters were received on the Draft EIR from private and public entities; and

WHEREAS, a Final Environmental Impact Report ("FEIR" or "Final EIR"), incorporating all comments received on the DEIR and responses to comments was issued on February 4, 2021; and

WHEREAS, the complete Final EIR consists of the September 2020 Draft EIR, comments received on the document, and responses to comments contained in the February 2021 FEIR, modifications made to the text of the Draft EIR that are also included in the FEIR, appendices to the Draft and Final EIRs, and all documents and resources referenced and incorporated by reference in the EIR; and

WHEREAS, the FEIR has been completed in compliance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq, the Guidelines for Implementation of the California Environmental Quality Act (14 Cal. Code Regs Section 15000 et seq.) (the "State CEQA Guidelines") and local procedures adopted pursuant thereto; and

WHEREAS, the City of Santa Cruz Water Commission considered the Project at a meeting on February 1, 2021 and March 1, 2021 and has received information on the purpose, need, cost, scope, schedule, and environmental impacts of the project and believes the analyses are sound and the project should proceed as scheduled, the next step would be for City Council to certify the Final EIR and approve the Project; and

WHEREAS, the City Council considered the FEIR at a public meeting on March 9, 2021;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Santa Cruz as follows:

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

RESOLUTION NO. NS-xx,xxx

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA CRUZ
ADOPTING FINDINGS OF FACT AND A
MITIGATION MONITORING AND REPORTING PROGRAM FOR
THE LAGUNA CREEK DIVERSION RETROFIT PROJECT
AND APPROVING THE PROJECT

WHEREAS, pursuant to Public Resources Code section 21067 of the California Environmental Quality Act (Pub. Res. Code §§ 21000 et seq.) ("CEQA") and section 15367 of the State CEQA Guidelines (Cal. Code Regs, tit. 14, § 15000 et seq.), the City is the lead agency for the proposed Laguna Creek Diversion Retrofit Project (the "Project"); and

WHEREAS, a Notice of Preparation ("NOP") of an Environmental Impact Report ("EIR") for the Project was issued by the Water Department of the City of Santa Cruz on March 16, 2020; and

WHEREAS, an EIR Scoping Meeting was held on March 16, 2020 to receive comments regarding the scope of issues to be addressed in the EIR; and

WHEREAS, a Draft Environmental Impact Report ("DEIR" or "Draft EIR") was prepared and issued for agency and public review and comment on September 18, 2020, for a 45-day review period that ended on November 2, 2020; and

WHEREAS, three (3) comment letters were received on the Draft EIR private and public entities; and

WHEREAS, a Final Environmental Impact Report ("FEIR" or "Final EIR"), incorporating all comments received on the DEIR and responses to comments was issued on February 4, 2021; and

WHEREAS, the FEIR has been completed in compliance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq, the Guidelines for Implementation of the California Resources Environmental Quality Act (14 Cal. Code Regs. Section 15000 et seq.) (the "State CEQA Guidelines") and local procedures adopted pursuant thereto; and

WHEREAS, the City Council held a public meeting on the Project and the FEIR on March 9, 2021; and

WHEREAS, on March 9, 2021, the City Council in Resolution No. _____ certified the FEIR for the Project; and

WHEREAS, the complete Final EIR consists of the September 2020 Draft EIR, comments received on the document, and responses to comments contained in the February 2021 FEIR, modifications made to the text of the Draft EIR that are also included in the FEIR, appendices to the Draft and Final EIRs, and all documents and resources referenced and incorporated by reference in the EIR; and

WHEREAS, the Final EIR identified certain significant and potentially significant adverse effects on the environment that would be caused by the approval and implementation of the Project as proposed; and

WHEREAS, the Final EIR outlined various mitigation measures that would substantially lessen or avoid the Project's significant effects on the environment, as well as a reasonable range of feasible alternatives, which would provide some environmental advantages over the Project; and

WHEREAS, the City of Santa Cruz is required, pursuant to CEQA, to adopt all feasible mitigation measures or feasible Project alternatives that can substantially lessen or avoid any significant environmental effects of a proposed Project; and

WHEREAS, Public Resources Code Section 21081, subdivision (a), requires a public agency, before approving a Project for which an EIR has been prepared and certified, to adopt findings specifying whether mitigation measures and, in some instances, alternatives discussed in the EIR, have been adopted or rejected as infeasible; and

WHEREAS, Exhibit A to this Resolution is a set of Findings of Fact prepared in order to satisfy the requirements of Public Resources Code section 21081, subdivision (a); and

WHEREAS, as the Findings of Fact explain, the City Council, reflecting the advice of City and Agency Staff, the Water Commission, and extensive input from the community, has expressed its intention to approve the proposed Project; and

WHEREAS, in taking this course, the City Council has acted consistently with the CEQA mandate to look to feasible Project mitigations and/or alternatives as a means of substantially lessening or avoiding the environmental effects of the Project as proposed; and

WHEREAS, some of the significant and potentially significant environmental effects associated with the Project, as approved, can either be substantially lessened or avoided through the inclusion of mitigation measures proposed in the Final EIR; and

WHEREAS, the City Council in approving the Project as proposed intends to adopt all mitigation measures set forth in the Findings of Fact; and

WHEREAS, because all significant effects can be avoided through the adoption of feasible mitigation measures, the City Council need not consider the feasibility of project alternatives, and need not adopt a statement of overriding considerations pursuant to Public Resources Code section 21081, subdivision (b); and

WHEREAS, the City Council recognizes the City's obligation, pursuant to Public Resources Code Section 21081.6, subdivision (a), to ensure the monitoring of all adopted mitigation measures necessary to substantially lessen or avoid the significant effects of the Project; and

WHEREAS, Exhibit B to this Resolution is the Mitigation Monitoring and Reporting Plan prepared in order to comply with § 21081.6, subdivision (a);

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Santa Cruz as follows:

1. In approving this Resolution, the City Council adopts Exhibit A attached hereto in order to satisfy its obligations under Public Resources Code sections 21002 and 21081, subdivision (a);

2. In approving this Resolution, City Council adopts Exhibit B attached hereto in order to satisfy its obligations under Public Resources Code Section 21081.6, subdivision (a); and

3. The City Council hereby approves the Project and 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; and

4. All environmental documents and other materials that constitute the record of proceedings upon which this decision is based are located at the City of Santa Cruz Water Department, 212 Locust Street, Suite C, Santa Cruz, California 95060.

PASSED AND ADOPTED this____day of_____2021 by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

APPROVED: _____
Mayor

ATTEST: _____
City Clerk Administrator

FINDINGS OF FACT

Laguna Creek Diversion Retrofit Project
Environmental Impact Report

State Clearinghouse Number 2020030456

Prepared for

City of Santa Cruz Water Department
212 Locust Street, Suite C
Santa Cruz, CA 95060

Prepared by

DUDEK
725 Front Street, Suite 400
Santa Cruz, CA 95060

FEBRUARY 2021

Table of Contents

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
City	City of Santa Cruz
DEIR	Draft Environmental Impact Report
EIR	environmental impact report
Facility	Laguna Creek Diversion Facility
FEIR	Final Environmental Impact Report
GHG	greenhouse gas
MLD	Most Likely Descendant
NAGPRA	Native American Graves Protection and Repatriation Act
NOP	Notice of Preparation
PRIMP	Paleontological Resources Impact Mitigation Program
Proposed Project	Laguna Creek Diversion Retrofit Project
SAA	Streambed Alteration Agreement
SCWD	Santa Cruz Water Department
SVP	Society of Vertebrate Paleontology

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1 Introduction

The City of Santa Cruz (City), as lead agency, prepared an environmental impact report (EIR) for the Laguna Creek Diversion Retrofit Project (Proposed Project). In its entirety, the EIR consists of the September 2020 Draft EIR (Draft EIR or DEIR) and the February 2021 Final EIR (Final EIR or FEIR). The EIR is a project-level EIR pursuant to Section 15161 of the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.).

The Proposed Project would retrofit the existing Laguna Creek Diversion Facility (Facility) to provide for natural sediment transport past the diversion and to protect fish species and habitats. The retrofit would be comprised of the following primary components: new intake structure and screen; new intake structure appurtenances; new valve control vault; bank protection and armoring; new monitoring and control equipment; new access and safety provisions; and modifications to the existing intake and sediment control bypass valves. The Proposed Project would not increase the diversion rates, which would remain consistent with existing operations at the Facility. (DEIR, p. 1-1.)

These findings 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.). The FEIR is hereby incorporated by reference to this resolution and this attachment.

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2 Project Description

2.1 Location

The Proposed Project would be located in the community of Bonny Doon, California, in unincorporated Santa Cruz County, approximately 7 miles northwest of downtown Santa Cruz (straight-line distance) at an elevation of approximately 620 feet. The project site is approximately 0.1 miles upstream of the confluence with Reggiardo Creek and approximately 4 miles upstream of the Pacific Ocean. The project location and vicinity is shown in Figure 3-1 of the DEIR.

The project site encompasses approximately 2.1 acres and is located on a portion of Assessor's Parcel Number 06210103, which is privately owned land. The City has deeded access and rights for operation of the Facility per an agreement from January 1889. Access to the project site is provided by three unimproved access roads off Smith Grade. The project site is approximately 5 miles from State Route 1 via Bonny Doon Road to Smith Grade, and approximately 12 miles from State Route 17 via State Route 1, Bay Street, and High Street/Empire Grade to Smith Grade.

The project site contains the Laguna Creek Diversion Facility (Facility), which is operated by the Santa Cruz Water Department (SCWD) and provides water from Laguna Creek to the SCWD's water supply system. The project site consists of the existing dam, intake structure, diversion flume, transmission pipeline, control building, access roads, and downstream plunge pool, as well as the surrounding area. The project site is shown on Figure 3-2 of the DEIR. (DEIR, p. 3-1.)

2.2 Overview

The Facility was constructed in 1890 and originally included the dam and diversion flume constructed from native stone and the cast iron Laguna Pipeline. Improvements have been installed subsequently to aid in the continued functionality of the Facility. The dam is a physical example of pioneering water management infrastructure in California and appears individually eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and the Santa Cruz County Historic Resources Inventory, and therefore, is considered a historic resource for the purposes of CEQA. (DEIR, p. 3-4.) The period of significance for the dam is 1890, the year it was initially constructed and the historic property boundary for dam is limited to the dam structure footprint. (DEIR, p. 4.5-12.)

2.3 Project Objectives

The objectives for the Proposed Project are as follows:

- Protect a critical water supply for the City by addressing constraints at the Facility to maintain full system functionality and minimize service interruptions.
- Improve environmental conditions both at the intake with upgraded screen technology for fish protection and in downstream reaches by facilitating sediment movement to support aquatic species habitat.

- Improve overall operational efficiency by incorporating technology that allows for fine-tuned control of diversion rates to enhance the SCWD's ability to meet instream flow requirements and regulation of water levels downstream of the Facility.
- Improve safety and access at the Facility to facilitate the City's ability to maintain the Facility and conduct operational activities.
- Implement a project that is relatively cost-effective in terms of both capital and operation/maintenance costs. (DEIR, p. 3-8).

2.4 Project Description

The Proposed Project would involve construction of a new intake structure with an embedded Coanda screen at the downstream face of the dam's left/east abutment, as seen from the vantage point of looking downstream. Other components of the Proposed Project would include installation of intake structure appurtenances, a new valve control vault and diversion pipeline, new monitoring and control equipment, riprap bank stabilization along the creek bank, and site access and safety improvements. The existing intake would be modified and decommissioned once the proposed improvements are implemented. A bypass pipe would be incorporated in the intake to allow for emergency diversion of water and the intake would be backfilled with concrete. In addition, the two existing sediment-control bypass valves on the downstream face of the dam would be removed and the bypass pipes abandoned in place and capped. Construction is projected to occur in 2021 and would take place over approximately 3 months, planned to occur during the low-flow period (between the months of June to October).

Once operable, the Proposed Project would concentrate the Laguna Creek flows over a newly created notch in the dam where the new Coanda screen intake structure would be installed. The Coanda screen would allow a controlled portion of the streamflow to fall through the screen while excluding a majority of sediments. This design would allow for the movement of sediment past the dam in sync with the transport capacity of the creek, restoring natural fluvial functions of sediment transport and deposition that benefit downstream fisheries and aquatic habitats. The Proposed Project would also provide appropriate fish screening and improved ability to regulate the rate of change in water diversions to prevent fish from becoming stranded by rapidly changing water levels in downstream reaches.

The Proposed Project would provide a flexible approach to manage the quantity and quality of water that can be diverted, minimize the use of power, and provide for economical and operational feasibility. The Proposed Project would also allow for fine-tuned control of diversion rates and would include improvements for safe access to the Facility. The Proposed Project would maintain the existing maximum diversion rate at the Facility. (DEIR, pp. 1-1 to 1-2).

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 March 16, 2020. 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 March 16, 2020. Additionally, one EIR Scoping Meeting was held on March 31, 2020 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. (DEIR, p. 2.4-4.)

The EIR includes an analysis of the following issue areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire
- CEQA-Required Sections: Significant Unavoidable Impacts, Significant Irreversible Changes, Growth Inducement, Cumulative Impacts, and Alternatives

On September 18, 2020, 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 November 2, 2020. (FEIR, p. 2-5.) The Final EIR was published on February 4 2021. The Water Commission held a public meeting on the Proposed Project and Final EIR on February 1 and March 1, 2021. The City Council held a public meeting on the Proposed Project and Final EIR on March 9, 2021.

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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 (March 2020), including related comments from agencies, organizations, and individuals, and all other public notices issued by the City in conjunction with the Proposed Project;
- The Draft EIR for the Proposed Project (September 2020) and all appendices, as well as all documents cited or referenced therein;
- The Final EIR for the Proposed Project (February 2021) and all appendices, as well as all documents cited or referenced therein;
- Any minutes and/or verbatim transcripts of all information sessions, public meetings, and public hearings held by the City in connection with the Proposed Project;
- Any documentary or other evidence submitted to the City at such information sessions, public meetings, and public hearings;
- Any and all resolutions adopted by the City regarding the Proposed 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 Proposed 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 Proposed 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.

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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 California Supreme Court has referred to this statutory command as the "substantive mandate" of CEQA. (See *Mountain Lion Foundation v. Fish & Game Commission* (1997) 16 Cal.4th 105, 134.) 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."

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).)

As used in 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. Because, as shown below, there are no instances in which mitigation measures do not fully avoid otherwise significant effects, however, the term "substantially lessen" is not used below.

Because all of the significant impacts identified in the EIR can be fully avoided (i.e., rendered less than significant) through the adoption of feasible mitigation measures, the City has satisfied CEQA's substantive mandate without any need to consider the feasibility of alternatives. (See *Laurel Hills Homeowners Association v. City Council* (1978) 83 Cal.App.3d 515, 521.)

Nor is there any need for the City Council to adopt a statement of overriding considerations pursuant to CEQA Guidelines Section 15093. Such a statement, which identifies project benefits that "override" any significant unavoidable environmental effects of a project, need only be adopted where, indeed, there are significant unavoidable effects. Here there are none.

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6 Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program (Exhibit B) has been prepared for the Proposed Project, and will be approved by the City Council by the same Resolution that adopts these findings, if the Proposed Project is approved. The City will use the Mitigation Monitoring and Reporting Program to track compliance with project mitigation measures and Project-proposed best management practices (BMPs) (i.e., standard construction practices). The Mitigation Monitoring and Reporting Program will remain available for public review during the compliance period.

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7 Environmental Effects and Mitigation Measures

The EIR identified significant environmental effects (or impacts) resulting from the implementation of the Proposed Project. All impacts can be avoided or reduced to a less-than-significant level by the adoption of feasible mitigation measures.

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 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, accompanied by a brief explanation. Full explanations of these environmental findings and conclusions can be found in the EIR. These findings hereby incorporate by reference the discussion and analysis in those documents supporting the EIR's determinations regarding mitigation measures and the Proposed Project's impacts and mitigation measures designed to address those impacts. In making these findings, the City Council ratifies, adopts, and incorporates into these findings the analysis and explanation in the EIR and ratifies, adopts, and incorporates in these findings the determinations and conclusions of the EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

7.3 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 Proposed Project and/or through adherence with existing laws, codes, and statutes. Based on the environmental analysis presented in the EIR and the comments received by the public on the Draft EIR, no substantial evidence was submitted to or identified by the City indicating that the Proposed Project would have a potentially significant impact 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 EIR.

7.3.1 Impacts Not Found to be Significant

Issues related to aesthetics, agriculture and forestry resources, mineral resources, population and housing, public services, recreation, utilities and service systems, and wildfire were found not to be significant.

7.3.2 Air Quality

Impact AIR-1: Conflict with an Applicable Air Quality Plan. The Proposed Project would not conflict with or obstruct the Monterey Bay Air Resources District's Air Quality Management Plan.

Impact AIR-2: Criteria Pollutant Emissions. The Proposed Project would result in emissions of criteria pollutants, but would not exceed adopted thresholds of significance, violate any air quality standards, or contribute substantially to an existing or projected air quality violation. Therefore, the Proposed Project would 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. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

Impact AIR-4: Result in Other Emissions Adversely Affecting a Substantial Number of People. The Proposed Project would not result in other emissions, such as those leading to odors, that would adversely affect a substantial number of people.

Impact AIR-5: Cumulative Air Quality Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to air quality.

7.3.3 Biological Resources

Impact BIO-4: Wildlife Corridors. The Proposed Project would not substantially degrade the quality or interfere with the use of a wildlife corridor or migratory route, or otherwise impede wildlife movement or use of native wildlife nursery sites.

Impact BIO-5: Conflicts with Local Policies or Ordinances. The Proposed Project would not conflict with local policies or ordinances protecting biological resources.

Impact BIO-6: Cumulative Biological Resources Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to biological resources.

7.3.4 Cultural Resources and Tribal Cultural Resources

Impact CUL-5: Cumulative Cultural Resources and Tribal Cultural Resources Impacts. The Proposed Project, in combination with other reasonably foreseeable future development, would not result in a significant cumulative impact related to cultural resources and tribal cultural resources.

7.3.5 Energy

Impact ENE-1: Result in Wasteful, Inefficient or Unnecessary Consumption of Energy Resources. The Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Impact ENE-2: Conflict with an Applicable Plan. The Proposed Project would not result in conflicts with or otherwise obstruct a state or local plan for renewable energy or energy efficiency.

Impact ENE-3: Cumulative Energy Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to energy.

7.3.6 Geology and Soils

Impact GEO-1: Seismic Hazards. The Proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death resulting from seismic ground shaking or seismic-related ground failure, including liquefaction.

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

Impact GEO-3: Expansive Soils. The Proposed Project would not be located on expansive soil, as defined in the 2019 California Building Code.

Impact GEO-5: Cumulative Geologic Hazards. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to geology and soils.

Impact GEO-6: Cumulative Paleontological Resources Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to paleontological resources.

7.3.7 Greenhouse Gas Emissions

Impact GHG-1: GHG Emissions. The Proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact GHG-2: Conflict with an Applicable GHG Reduction Plan. The Proposed Project would 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. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would result in a significant cumulative impact related to GHG emissions. However, the Proposed Project's contribution would not be cumulatively considerable.

7.3.8 Hazards and Hazardous Materials

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

Impact HAZ-2: Reasonably Foreseeable Upset or Accident Conditions. The Proposed Project would not 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: Wildfire Hazards. The Proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impact HAZ-4: Cumulative Hazard Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to routine transport, use, disposal, or accidental release of hazardous materials, or related to significant risk of loss, injury, or death involving wildland fires.

7.3.9 Hydrology and Water Quality

Impact HYD-1: Water Quality. The Proposed Project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Impact HYD-2: Alteration of Drainage Patterns. The Proposed Project would 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: i) result in substantial erosion or siltation on or off site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; iii) 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 iv) impede or redirect flood flows.

Impact HYD-3: Cumulative Water Quality Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to water quality or alteration of drainage patterns.

7.3.10 Land Use and Planning

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

Impact LU-2: Cumulative Land Use Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would 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.

7.3.11 Noise

Impact NOI-3: Cumulative Noise Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to noise and vibration.

7.3.12 Transportation

Impact TRA-1: Conflict with a Program, Plan, Ordinance, or Policy Addressing the Circulation System. The Proposed Project would 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. The Proposed Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b).

Impact TRA-3: Geometric Design Hazards. The Proposed Project would not substantially increase hazards due to a geometric design feature or incompatible use.

Impact TRA-4: Emergency Access. The Proposed Project would not result in inadequate emergency access.

Impact TRA-5: Cumulative Transportation Impacts. The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to transportation.

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

The following summary describes impacts of the Proposed Project that, without mitigation, would result in significant adverse impacts. However, upon implementation of the mitigation measures provided in the EIR, these impacts would be considered less than significant.

7.4.1 Biological Resources

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

- **Impact BIO-1: Special-Status Species.** The Proposed Project could have a substantial adverse effect on special-status species during construction.
- **Impact BIO-2: Sensitive Vegetation Communities.** The Proposed Project could have a substantial adverse effect on the redwood forest alliance vegetation community during construction that would result in both temporary and permanent impacts.
- **Impact BIO-3: Jurisdictional Wetlands and Waters.** The Proposed Project would not have a substantial adverse effect on jurisdictional wetlands, but could have a substantial adverse effect on jurisdictional non-wetland waters during construction that would result in both temporary and permanent impacts.

Support for these environmental impact conclusions are fully discussed in Section 4.4, Biological Resources, of the EIR.

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 Proposed Project and are listed below.

MM BIO-1a: **Conduct Worker Environmental Awareness Training.** A qualified biologist shall conduct an education program for all persons employed on the Proposed Project prior to performing work activities. The presentation given by the qualified biologist will include a discussion of the biology and general behavior of any special-status species that may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered. The qualified biologist shall prepare and distribute handouts containing all of this information for workers to carry on site. Interpretation shall be provided for non-English speaking workers. All personnel working on the site will receive this training, and will sign a sign-in sheet showing they

received the training. Any personnel joining the work crew after the training has been administered shall receive the same training before beginning work.

MM BIO-1b: **Conduct Special-Status Amphibian Species Survey and Monitoring.** A pre-construction survey for Santa Cruz black salamander, California giant salamander, and California red-legged frog shall be conducted within 48 hours prior to the onset of construction activities. The survey area shall include all suitable habitat within the project site, plus a 50-foot buffer. Suitable habitat for these species in the project site consists of damp upland areas near/adjacent to existing aquatic features associated with Laguna Creek, and the wetted portion of Laguna Creek. Additionally, a qualified biologist shall be onsite daily during construction activities to ensure impacts to special-status wildlife are avoided and minimized. A daily pre-construction sweep for wildlife within all staging and work areas shall be conducted followed by construction monitoring when work is conducted within suitable habitat.

Salamanders. If any individuals of Santa Cruz black salamander or California giant salamander are observed during the pre-construction survey or subsequent monitoring, their location(s) shall be recorded and identified for avoidance. Individuals found should be allowed to move out of the area on their own. If avoidance is not feasible, they shall be moved to the nearest appropriate habitat outside of the construction footprint by a qualified biologist. Qualified biologists shall be approved by the California Department of Fish and Wildlife prior to handling/translocating individuals of these species.

California Red-Legged Frogs. Although determined to have a low potential to occur within the project site, initial ground-disturbing activities shall avoid the period when California red-legged frogs are most likely to be moving through upland areas (November 1 through March 31). When ground-disturbing activities must take place between November 1 and March 31, a qualified biologist shall monitor construction activity daily for the species to ensure avoidance. If any California red-legged frogs are observed and take authorization has been provided for the Proposed Project, relevant conservation measures from the applicable take authorization shall be implemented. If any California red-legged frogs are observed and take authorization has not been provided for the Proposed Project, the monitoring biologist shall have the authority to temporarily stop work to allow the species to move out of the work area on its own volition. The U.S. Fish and Wildlife Service shall be contacted if frogs remain in work areas and appropriate avoidance and minimization measures shall be implemented, as determined by the qualified biologist and approved by the City, to ensure protection of the frogs.

MM BIO-1c: **Conduct San Francisco Dusky-Footed Woodrat Survey and Relocation.** A pre-construction survey to locate woodrat middens shall be conducted by a qualified biologists within 48 hours prior to the onset of construction activities. The survey area shall include all suitable habitat within the project site, plus a 50-foot buffer. Woodrat middens found shall be mapped and flagged with high visibility flagging tape for avoidance. If middens are found and complete avoidance is not feasible, the following measures shall be implemented:

- If construction is to occur during the breeding season (generally between January 1 and September 31), and young are suspected to be present, the existing midden shall be left undisturbed until such a time as the qualified biologist determines the young are capable of independent survival.

- A qualified biologist shall construct replacement woodrat middens for each midden that would be removed. The replacement middens shall be located in similar habitat outside the area of disturbance.
- A qualified biologist shall trap woodrats and relocate them to the constructed middens outside the area of disturbance. After trapping is complete, the biologist will disassemble the existing woodrat middens by hand to allow any remaining woodrats inside to escape unharmed.
- Prior to implementation of any disturbance of the existing woodrat middens and/or trapping/relocation, approval from the California Department of Fish and Wildlife will be obtained.

MM BIO-1d: **Conduct Pre-Construction Nesting Bird and Roosting Bat Survey**. Construction and tree removal activities should avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potentially significant impact to birds that may be nesting on the study area. If construction and tree removal activities must occur during the migratory bird nesting season, an avian nesting survey of the project site and contiguous habitat within 300 feet of all impact areas must be conducted for protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 7 days prior to the start of ground or vegetation disturbance. Once construction has started, if there are breaks in ground or vegetation disturbance that exceed 14 days, then another avian nesting survey shall be conducted. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate no disturbance buffer, which will be determined by the biologist based on the species' sensitivity to disturbance (typically 250 feet for passerines and 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing.

To the extent practicable, tree removal should occur outside peak bat activity timeframes when young or overwintering bats may be present, which generally occurs from March through April and August through October, to ensure protection of potentially occurring bats and their roosts on the project site. Additionally, daily restrictions on the timing of any construction activities should be limited to daylight hours to reduce disturbance to roosting (and foraging) bat species. Additionally, a visual bat survey should be conducted within 30 days prior to the removal of any trees. The survey should include a determination on whether active bat roosts are present on or within 50 feet of the project site. If a non-breeding and non-wintering bat colony is found, the individuals shall be evicted under the direction of a qualified biologist to ensure their protection and avoid unnecessary harm. If a maternity colony or overwintering colony is found in the control building or trees on the project site, then the qualified biologist shall establish a suitable construction-free buffer around the location. The construction-free buffer shall remain in place until the qualified biologist determines that the nursery is no longer active.

MM BIO-2: **Compensate for Impacts to Sensitive Vegetation Communities.** Direct temporary impacts to 0.20 acres of redwood forest alliance would be mitigated through on-site rehabilitation to conditions similar to those that existed prior to grading and/or ground-disturbing activities. This would consist of re-contouring temporarily impacted areas to match pre-project grade and non-native species removal and monitoring over a 3-year period to inhibit non-native species encroachment. A one-time rehabilitation effort followed by monitoring and non-native weed

removal for a minimum of 3 years shall compensate for temporary direct impacts to the redwood forest alliance vegetation community.

Direct permanent impacts to 0.01 acres of redwood forest alliance vegetation community shall be mitigated through on-site enhancement activities at a 2:1 mitigation ratio.

A conceptual Habitat Mitigation and Monitoring Plan shall be prepared and implemented that includes the enhancement activities, which may include non-native species removal and revegetation followed by monitoring, for all disturbed areas. The plan shall specify the criteria and standards by which the enhancement actions will compensate for impacts of the Proposed Project on the redwood forest vegetation community and shall at a minimum include discussion of the following:

- The enhancement objectives including the 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 account natural regeneration of species.
- The specific methods to be employed for revegetation.
- Success criteria and monitoring requirements to ensure vegetation community restoration success.
- Remedial measures to be implemented in the event that performance standards are not achieved.

MM-BIO-3: **Compensate for Impacts to Jurisdictional Non-Wetland Waters.** Direct temporary and permanent impacts to jurisdictional non-wetland waters shall be mitigated on site. On-site measures shall include rehabilitation of areas temporarily impacted (approximately 0.13 acres) and permanently impacted (approximately 0.01 acres) within jurisdictional limits at a 1:1 mitigation ratio. Areas impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. The conceptual Habitat Mitigation and Monitoring Plan implemented as part of MM-BIO-2 shall include enhancement activities to address impacts to jurisdictional non-wetland waters, which may include non-native species removal and revegetation followed by monitoring, for all disturbed areas. The plan shall specify the criteria and standards by which the enhancement actions will compensate for impacts of the Proposed Project on jurisdictional non-wetland waters. Direct temporary and permanent impacts to jurisdictional non-wetlands waters shall be addressed through Section 401 and Section 404 of the Clean Water Act, the Porter-Cologne Water Quality Act, and Section 1602 of the California Fish and Game Code.

Finding. The City finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant biological resources impacts of the Proposed Project to less-than-significant levels. Accordingly, the City 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 Proposed Project that mitigate or avoid potentially significant biological resources impacts of the Proposed Project identified in the EIR.

7.4.2 Cultural Resources and Tribal Cultural Resources

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

- **Impact CUL-1: Historical Resources.** The Proposed Project could cause a substantial adverse change in the significance of the Laguna Creek Dam, which is a historical resource, due to modifications of the Facility that would occur during construction.
- **Impact CUL-2: Archaeological Resources.** The Proposed Project could cause a substantial adverse change in the significance of an archaeological resource during construction.
- **Impact CUL-3: Human Remains.** The Proposed Project could inadvertently disturb human remains during construction.
- **Impact CUL-4: Tribal Cultural Resources.** The Proposed Project could cause a substantial adverse change in the significance of a tribal cultural resource during construction.

Support for these environmental impact conclusions are fully discussed in Section 4.5, Cultural Resources and Tribal Cultural Resources, of the EIR.

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

MM NOI-2: **(Addresses Impact CUL-1) Construction Vibration Effects on Historic Structures.** Prior to the use of construction equipment in the vicinity of the dam, a vibration damage threshold will be established by a qualified engineer under the direction of the City. The vibration damage threshold will be developed through the evaluation of the condition of the dam structure, underlying soil conditions, and type of construction operation to be performed.

At the City's direction, a construction vibration monitoring plan will be prepared and implemented prior to the use of construction equipment near the dam. The monitoring plan shall report on the vibration damage threshold and the methods used to develop the threshold. The plan shall also establish the methodology for characterizing the existing baseline vibration levels present on the site, operational construction vibration monitoring consistent with the established threshold, and reporting to be completed during project construction.

Should the construction vibration analysis undertaken during the preparation of the monitoring plan reveal that the proposed construction methods would exceed the vibration threshold established for the dam, alternative construction methods will be explored to find a method that would allow project construction to move forward while avoiding potential vibration-related damage to the dam during construction.

MM CUL-2: **Cultural Resources Awareness Training and Unanticipated Discovery of Archaeological Resources.** 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 a 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.

In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Proposed Project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act (CEQA) (14 California Code of Regulations Section 15064.5[f]; 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, additional treatment may be required.

MM CUL-3: **Unanticipated Discovery of Human Remains.** In accordance with California Health and Safety Code Section 7050.5, if potential human remains are found, the lead agency staff and the County Coroner must be immediately notified of the discovery. The coroner would 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 would notify the Native American Heritage Commission within 24 hours. In accordance with Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. Within 48 hours of this notification, the MLD would recommend to the lead agency her/his preferred treatment of the remains and associated grave goods. Further, federal regulations require that Native American human remains, funerary objects, and object of cultural patrimony are handled consistent with the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) for all discovery situations in accordance with 43 Code of Federal Regulations Part 10.

Finding. The City 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 Proposed Project to less-than-significant levels. Accordingly, the City 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 Proposed Project that mitigate or avoid potentially significant cultural resources and tribal cultural resources impacts of the Proposed Project identified in the EIR.

7.4.3 Geology and Soils

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

- **Impact GEO-4: Paleontological Resources.** The Proposed Project could potentially directly or indirectly destroy a unique paleontological resource or site during construction. However, the Proposed Project would not directly or indirectly destroy a unique geological feature.

Support for these environmental impact conclusions are fully discussed in Section 4.7, Geology and Soils, of the EIR.

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

MM GEO-4: **Paleontological Resources Impact Mitigation Program and Paleontological Monitoring.** Prior to commencement of any grading activity on site, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Proposed Project. The PRIMP shall be consistent with the SVP (2010) guidelines and outline requirements for pre-construction meeting attendance and worker environmental awareness training, where paleontological monitoring is required within the project site based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. The qualified paleontologist shall attend the pre-construction meeting and a qualified paleontological monitor shall be on site during all rough grading and other significant ground-disturbing activities (including augering) in previously undisturbed, Monterey Formation deposits, as defined by the PRIMP. 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 finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant geology and soils impacts of the Proposed Project to less-than-significant levels. Accordingly, the City 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 Proposed Project that mitigate or avoid potentially significant geology and soils impacts of the Proposed Project identified in the EIR.

7.4.4 Noise

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

- **Impact NOI-1: Substantial Increase in Ambient Noise Levels.** The Proposed Project would result in generation of a substantial temporary increase in ambient noise levels during construction in the vicinity of the project in excess of applicable standards. However, the Proposed Project would not result in generation of a substantial permanent increase in ambient noise levels during operation.

- **Impact NOI-2: Groundborne Vibration.** The Proposed Project would result in the potential generation of excessive groundborne vibration or groundborne noise levels during construction.

Support for these environmental impact conclusions are fully discussed in Section 4.12, Noise, of the EIR.

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 Proposed Project and are listed below.

MM NOI-1: **Construction Noise.** 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.
- 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.
- Pumps that are not submerged and aboveground conveyor systems shall be located within acoustically treated enclosures, shrouded, or shielded to prevent the propagation of sound into the surrounding areas.
- Portable and stationary site support equipment (e.g., generators, compressors, rock crushers, and cement mixers) shall be located as far as possible from nearby noise-sensitive receptors.
- Impact tools shall have the working area/impact area shrouded or shielded whenever possible, with intake and exhaust ports on power equipment muffled or suppressed. This may necessitate the use of temporary or portable, application-specific noise shields or barriers.
- Construction equipment shall not be idled for extended periods (i.e., 5 minutes or longer) of time in the immediate vicinity of noise-sensitive receptors.

MM NOI-2: **Construction Vibration Effects on Historic Structures.** Prior to the use of construction equipment in the vicinity of the dam, a vibration damage threshold will be established by a qualified engineer under the direction of the City. The vibration damage threshold will be developed through the evaluation of the condition of the dam structure, underlying soil conditions, and type of construction operation to be performed.

At the City's direction, a construction vibration monitoring plan will be prepared and implemented prior to the use of construction equipment near the dam. The monitoring plan shall report on the vibration damage threshold and the methods used to develop the threshold. The plan shall also establish the methodology for characterizing the existing baseline vibration levels present on the site, operational construction vibration monitoring consistent with the established threshold, and reporting to be completed during project construction.

Should the construction vibration analysis undertaken during the preparation of the monitoring plan reveal that the proposed construction methods would exceed the vibration threshold established for the dam, alternative construction methods will be explored to find a method that would allow project construction to move forward while avoiding potential vibration-related damage to the dam during construction.

Finding. The City finds that the above mitigation measures are feasible, are adopted, and will reduce the potentially significant noise impacts of the Proposed Project to less-than-significant levels. Accordingly, the City 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 Proposed Project that mitigate or avoid potentially significant noise impacts of the Proposed Project identified in the EIR.

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9 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 Laguna Creek Diversion Retrofit 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 MMRP is intended to be used by City of Santa Cruz Water Department (SCWD) staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMRP were developed in the Draft 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 Draft 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 Draft EIR and, for each measure, the party responsible for implementation and implementation timing (see Table 9-1). The MMRP also includes the City's standard construction practices, which are described in Chapter 3, Project Description, and would be implemented by the City and its contractors during project construction activities.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
Mitigation Measures Identified in the Environmental Impact Report		
Biological Resources		
MM BIO-1a: Conduct Worker Environmental Awareness Training. A qualified biologist shall conduct an education program for all persons employed on the Proposed Project prior to performing work activities. The presentation given by the qualified biologist will include a discussion of the biology and general behavior of any special-status species that may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered. The qualified biologist shall prepare and distribute handouts containing all of this information for workers to carry on site. Interpretation shall be provided for non-English speaking workers. All personnel working on the site will receive this training, and will sign a sign-in sheet showing they received the training. Any personnel joining the work crew after the training has been administered shall receive the same training before beginning work.	City responsible for hiring qualified biologist. Contractor responsible for completing training.	Prior to initiation of construction activities.
MM BIO-1b: Conduct Special-Status Amphibian Species Survey and Monitoring. A pre-construction survey for Santa Cruz black salamander, California giant salamander, and California red-legged frog shall be conducted within 48 hours prior to the onset of construction activities. The survey area shall include all suitable habitat within the project site, plus a 50-foot buffer. Suitable habitat for these species in the project site consists of damp upland areas near/adjacent to existing aquatic features associated with Laguna Creek, and the wetted portion of Laguna Creek. Additionally, a qualified biologist shall be on site daily during construction activities to ensure impacts to special-status wildlife are avoided and minimized. A daily pre-construction sweep for wildlife within all staging and work areas shall be conducted followed by construction monitoring when work is conducted within suitable habitat. Salamanders. If any individuals of Santa Cruz black salamander or California giant salamander are observed during the pre-construction survey or subsequent monitoring, their location(s) shall be recorded and identified for avoidance. Individuals found should be allowed to move out of the area on their own. If avoidance is not feasible, they shall be moved to the nearest appropriate habitat outside of the construction footprint by a qualified biologist. Qualified biologists shall be approved by the California Department of Fish and Wildlife prior to handling/translocating individuals of these species. California Red-Legged Frogs. Although determined to have a low potential to occur within the project site, initial ground-disturbing activities shall avoid the period when California red-legged frogs are most likely to be moving through upland areas (November 1 through March 31). When ground-disturbing activities must take place between November 1 and March 31, a qualified biologist shall monitor construction activity daily for the species to ensure avoidance. If any California red-legged frogs are observed and take authorization has been provided for the Proposed Project, relevant conservation	City responsible for hiring qualified biologist to conduct pre-construction survey and daily monitoring and implement relocation, if needed.	Pre-construction survey: 48 hours prior to initiation of construction activities. Daily monitoring: During construction.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
measures from the applicable take authorization shall be implemented. If any California red-legged frogs are observed and take authorization has not been provided for the Proposed Project, the monitoring biologist shall have the authority to temporarily stop work to allow the species to move out of the work area on its own volition. The U.S. Fish and Wildlife Service shall be contacted if frogs remain in work areas and appropriate avoidance and minimization measures shall be implemented, as determined by the qualified biologist and approved by the City, to ensure protection of the frogs.		
MM BIO-1c: Conduct San Francisco Dusky-Footed Woodrat Survey and Relocation. A pre-construction survey to locate woodrat middens shall be conducted by a qualified biologists within 48 hours prior to the onset of construction activities. The survey area shall include all suitable habitat within the project site, plus a 50-foot buffer. Woodrat middens found shall be mapped and flagged with high visibility flagging tape for avoidance. If middens are found and complete avoidance is not feasible, the following measures shall be implemented: • If construction is to occur during the breeding season (generally between January 1 and September 31), and young are suspected to be present, the existing midden shall be left undisturbed until such a time as the qualified biologist determines the young are capable of independent survival. • A qualified biologist shall construct replacement woodrat middens for each midden that would be removed. The replacement middens shall be located in similar habitat outside the area of disturbance. • A qualified biologist shall trap woodrats and relocate them to the constructed middens outside the area of disturbance. After trapping is complete, the biologist will disassemble the existing woodrat middens by hand to allow any remaining woodrats inside to escape unharmed. • Prior to implementation of any disturbance of the existing woodrat middens and/or trapping/ relocation, approval from the California Department of Fish and Wildlife will be obtained.	City responsible for hiring qualified biologist to conduct pre-construction survey and implement relocation, if needed.	Pre-construction survey: 48 hours prior to initiation of construction activities.
MM BIO-1d: Conduct Pre-Construction Nesting Bird and Roosting Bat Survey. Construction and tree removal activities should avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potentially significant impact to birds that may be nesting on the study area. If construction and tree removal activities must occur during the migratory bird nesting season, an avian nesting survey of the project site and contiguous habitat within 300 feet of all impact areas must be conducted for protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 7 days prior to the start of ground or vegetation disturbance. Once construction has started, if there are breaks in ground or vegetation disturbance that exceed 14 days, then another avian nesting survey shall be conducted. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate no disturbance buffer, which will be determined by the biologist based on the species' sensitivity to disturbance (typically 250 feet for passerines and 500 feet for raptors and special-status species). The nest area shall be avoided until	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.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. To the extent practicable, tree removal should occur outside peak bat activity timeframes when young or overwintering bats may be present, which generally occurs from March through April and August through October, to ensure protection of potentially occurring bats and their roosts on the project site. Additionally, daily restrictions on the timing of any construction activities should be limited to daylight hours to reduce disturbance to roosting (and foraging) bat species. Additionally, a visual bat survey should be conducted within 30 days prior to the removal of any trees. The survey should include a determination on whether active bat roosts are present on or within 50 feet of the project site. If a non-breeding and non-wintering bat colony is found, the individuals shall be evicted under the direction of a qualified biologist to ensure their protection and avoid unnecessary harm. If a maternity colony or overwintering colony is found in the control building or trees on the project site, then the qualified biologist shall establish a suitable construction-free buffer around the location. The construction-free buffer shall remain in place until the qualified biologist determines that the nursery is no longer active.		
MM BIO-2: Compensate for Impacts to Sensitive Vegetation Communities. Direct temporary impacts to 0.20 acres of redwood forest alliance would be mitigated through on-site rehabilitation to conditions similar to those that existed prior to grading and/or ground-disturbing activities. This would consist of re-contouring temporarily impacted areas to match pre-project grade and non-native species removal and monitoring over a 3-year period to inhibit non-native species encroachment. A one-time rehabilitation effort followed by monitoring and non-native weed removal for a minimum of 3 years shall compensate for temporary direct impacts to the redwood forest alliance vegetation community. Direct permanent impacts to 0.01 acres of redwood forest alliance vegetation community shall be mitigated through on-site enhancement activities at a 2:1 mitigation ratio. A conceptual Habitat Mitigation and Monitoring Plan shall be prepared and implemented that includes the enhancement activities, which may include non-native species removal and revegetation followed by monitoring, for all disturbed areas. The plan shall specify the criteria and standards by which the enhancement actions will compensate for impacts of the Proposed Project on the redwood forest vegetation community and shall at a minimum include discussion of the following:	City responsible for hiring qualified biologist to prepare plan and implement rehabilitation and monitoring.	Habitat Mitigation and Monitoring Plan preparation: During construction. Rehabilitation: After completion of construction activities. Monitoring/weed removal: At least 3 years following rehabilitation.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
• The enhancement objectives including the 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 account natural regeneration of species. • The specific methods to be employed for revegetation. • Success criteria and monitoring requirements to ensure vegetation community restoration success. • Remedial measures to be implemented in the event that performance standards are not achieved.		
MM-BIO-3: Compensate for Impacts to Jurisdictional Non-Wetland Waters. Direct temporary and permanent impacts to jurisdictional non-wetland waters shall be mitigated on site. On-site measures shall include rehabilitation of areas temporarily impacted (approximately 0.13 acres) and permanently impacted (approximately 0.01 acres) within jurisdictional limits at a 1:1 mitigation ratio. Areas impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. The conceptual Habitat Mitigation and Monitoring Plan implemented as part of MM-BIO-2 shall include enhancement activities to address impacts to jurisdictional non-wetland waters, which may include non-native species removal and revegetation followed by monitoring, for all disturbed areas. The plan shall specify the criteria and standards by which the enhancement actions will compensate for impacts of the Proposed Project on jurisdictional non-wetland waters. Direct temporary and permanent impacts to jurisdictional non-wetlands waters shall be addressed through Section 401 and Section 404 of the Clean Water Act, the Porter-Cologne Water Quality Act, and Section 1602 of the California Fish and Game Code.	City responsible for hiring qualified biologist to prepare plan.	After completion of construction activities, as specified in the Habitat Mitigation and Monitoring Plan.
Cultural Resources and Tribal Cultural Resources		
MM CUL-2: Cultural Resources Awareness Training and Unanticipated Discovery of Archaeological Resources. 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 a 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. In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Proposed Project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional	City responsible for inclusion of measure in construction specifications and hiring a qualified archaeologist. Contractor responsible for implementation.	During construction.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act (CEQA) (14 California Code of Regulations Section 15064.5[f]; 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, additional treatment may be required.		
MM CUL-3: Unanticipated Discovery of Human Remains. In accordance with California Health and Safety Code Section 7050.5, if potential human remains are found, the lead agency staff and the County Coroner must be immediately notified of the discovery. The coroner would 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 would notify the Native American Heritage Commission within 24 hours. In accordance with Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. Within 48 hours of this notification, the MLD would recommend to the lead agency her/his preferred treatment of the remains and associated grave goods. Further, federal regulations require that Native American human remains, funerary objects, and object of cultural patrimony are handled consistent with the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) for all discovery situations in accordance with 43 Code of Federal Regulations Part 10.	City responsible for inclusion of measure in construction specifications. Contractor responsible for implementation.	During construction.
Geology and Soils		
MM GEO-4: Paleontological Resources Impact Mitigation Program and Paleontological Monitoring. Prior to commencement of any grading activity on site, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Proposed Project. The PRIMP shall be consistent with the SVP (2010) guidelines and outline requirements for pre-construction meeting attendance and worker environmental awareness training, where paleontological monitoring is required within the project site based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. The qualified paleontologist shall attend the pre-construction meeting and a qualified paleontological monitor shall be on site during all rough grading and other significant ground-disturbing activities (including augering) in previously undisturbed, Monterey Formation deposits, as defined by the PRIMP. In the event that paleontological resources (e.g., fossils) are unearthed during	City responsible for hiring qualified paleontologist to prepare the PRIMP and conduct worker training and monitoring.	PRIMP preparation and worker training: Prior to site grading or excavation. Monitoring: During grading and ground disturbance as specified in the PRIMP.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
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.		
Noise		
MM NOI-1: Construction Noise. 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. • 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. • Pumps that are not submerged and aboveground conveyor systems shall be located within acoustically treated enclosures, shrouded, or shielded to prevent the propagation of sound into the surrounding areas. • Portable and stationary site support equipment (e.g., generators, compressors, rock crushers, and cement mixers) shall be located as far as possible from nearby noise-sensitive receptors. • Impact tools shall have the working area/impact area shrouded or shielded whenever possible, with intake and exhaust ports on power equipment muffled or suppressed. This may necessitate the use of temporary or portable, application-specific noise shields or barriers. • Construction equipment shall not be idled for extended periods (i.e., 5 minutes or longer) of time in the immediate vicinity of noise-sensitive receptors.	Contractor.	During construction.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
MM NOI-2: Construction Vibration Effects on Historic Structures. Prior to the use of construction equipment in the vicinity of the dam, a vibration damage threshold will be established by a qualified engineer under the direction of the City. The vibration damage threshold will be developed through the evaluation of the condition of the dam structure, underlying soil conditions, and type of construction operation to be performed. At the City's direction, a construction vibration monitoring plan will be prepared and implemented prior to the use of construction equipment near the dam. The monitoring plan shall report on the vibration damage threshold and the methods used to develop the threshold. The plan shall also establish the methodology for characterizing the existing baseline vibration levels present on the site, operational construction vibration monitoring consistent with the established threshold, and reporting to be completed during project construction. Should the construction vibration analysis undertaken during the preparation of the monitoring plan reveal that the proposed construction methods would exceed the vibration threshold established for the dam, alternative construction methods will be explored to find a method that would allow project construction to move forward while avoiding potential vibration-related damage to the dam during construction.	City responsible for hiring a qualified engineer to develop threshold and prepare plan. Contractor to implement plan during construction.	Development of threshold and plan: Prior to initiation of construction activities. Implementation of plan: During construction.
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, 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 periodic inspection. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. Periodic inspection during construction to ensure no violations.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
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 periodic inspection. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. 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, per-construction inspections, and periodic inspections. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. Periodic inspection during construction to ensure no violations.
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. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. Periodic inspection during construction to ensure no violations.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
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. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.
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 pre-construction and periodic inspections. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. 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 would have spill kits available, be checked daily for leaks, and would be 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.	City responsible for inclusion of measure in construction specifications and pre-construction and periodic inspections. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. Periodic inspection during construction to ensure no violations.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
8. Prevent equipment fluid leaks through regular equipment inspections.	City responsible for inclusion of measure in construction specifications and periodic inspection. Contractor responsible for implementation.	Include measure in construction specifications. Implement 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 pre-construction and periodic inspection during implementation. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. Periodic inspection during construction to ensure no violations.
In-Channel Work and Fish Species Protection		
10. Avoid activities in the active (i.e., flowing) channel whenever possible.	City responsible for inclusion of measure in construction specifications and periodic inspection during implementation. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Periodic inspection during construction to ensure no violations.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	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 periodic inspection during implementation. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction. Pre-construction inspection to confirm measures are in place. 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 periodic inspection during implementation. Contractor responsible for implementation.	Include measure in construction specifications. Implement 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 periodic inspection during implementation. Contractor responsible for implementation.	Include measure in construction specifications. Implement 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 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	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 periodic inspection during implementation. Contractor responsible for implementation.	Include measure in construction specifications. Implement 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 monitoring.	Implement at the onset of mobilization-construction and when new construction personnel arrive at 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.	Biologist to be present during installation of coffer dam and dewatering.
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 and type of construction activities being conducted. Cofferdam 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 streamflows to flow by gravity around or through the work site. If gravity flow is not feasible, streamflows may be pumped around the work site using pumps and screened intake	City responsible for inclusion of measure in construction specifications and periodic inspection during implementation. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction when work in flowing stream is unavoidable.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
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).		Pre-construction inspection to confirm measures are in place. 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. Contractor responsible for implementation, if needed.	Include measure in construction specifications. Implement during construction if needed.
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. Contractor responsible for implementation. City is responsible for periodic and post-construction inspection to ensure all imported materials are removed.	Include measure in construction specifications. Implement during construction. 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. Contractor responsible for implementation. City is responsible for post-construction inspection.	Include measure in construction specifications. Implement during construction. Post-construction inspection.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
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. Contractor responsible for implementation. City is responsible for post-construction inspection to ensure all imported materials are removed.	Include measure in construction specifications. Implement during construction. 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. Contractor responsible for implementation. City is responsible for post-construction inspection to ensure all imported materials are removed.	Include measure in construction specifications. Implement during construction. 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. The archaeologist will determine whether additional study is warranted. Should it be required, the archaeologist may install 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.	City responsible for inclusion of measure in construction specifications. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
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 would 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 would 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 would 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. Contractor responsible for implementation.	Include measure in construction specifications. Implement 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. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.
Project-Specific Practices for Biological Resources		
27. To protect fish, the following shall be implemented: • Relocate fish to suitable habitat during dewatering activities. • Maintain adequate water depth within downstream plunge pool. A depth of 3 to 4 feet is preferred to conform to the existing pool depth and minimize potential for degrading the suitability of the pool for trout habitat. Greater depth also reduces the potential for harm to fish passing over the Coanda screen and entering the plunge pool below. • Maintain soft bank stabilization features identified during project design that provides potential habitat for trout. • Maintain native riparian shrubs and small trees in (as appropriate) and around riprap to provide overhead cover and shading when the plants have matured.	City responsible for inclusion of measure in construction specifications. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
28. To protect trees that are retained on site, the following will be implemented: • Implement measures to minimize the potential for pathogen spread. Sanitize tools and equipment used in vegetation clearing including tree removal operations. If soil is collected on equipment, rinse equipment on site with a portable water tank or water truck, or at a designated rinsing station, to remove soil-borne pathogens and prevent transport to new sites. Alternatively, debris can be cleaned from tools/equipment via brushing, sweeping, or blowing with compressed air. • Implement additional prevention methods for sudden oak death and pitch canker. A qualified biologist, arborist, or forester should inspect loads of logs and equipment leaving the site to ensure that no host material is being transported without a permit if material is being transported to outside locations. If importing vegetative material for restoration purposes, ensure that material that has been produced in conformance with the latest horticultural standards in pest and disease avoidance and sanitation. • Implement recommendations from the Tree Inventory, Impact Assessment, and Protection Plan (Fouts 2020) prepared for the Proposed Project.	City responsible for inclusion of measure in construction specifications and hiring a qualified biologist. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.
29. To prevent inadvertent entrapment of wildlife during construction activities, all excavated, steep-walled holes or trenches more than 2 feet deep and/or all open pipeline segments will be covered at the close of each working day with plywood or similar materials, to the extent feasible. These areas will be inspected for trapped wildlife before and after placement of exclusionary materials.	City responsible for inclusion of measure in construction specifications. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.
Project-Specific Practices for Cultural Resources		
30. To protect the dam during construction, the following will be implemented: • Notching crest of dam. The notch in the crest of the dam shall be sawcut to score neat lines for stone masonry removal. The use of a wire saw would avoid excess material removal and would prevent unraveling of stone masonry beyond the limits of the new intake structure. Given the strength and hardness of the dam, the cuts may first be initiated using chisel hammers to remove materials as necessary. • Water-pressure washing of dam to remove debris. To remove loose material and organics such as dirt and moss water-blasting of the downstream face of the dam may be required. Prior to completing any water-blasting work, and at the direction of the City and under supervision of the Project inspector, the contractor shall test washing methods and develop the least impactful method of dam cleaning. The pressure washing methods shall avoid eroding the mortar. The contractor shall start with a low-pressure water wash, and if unsuccessful, use water of slightly higher pressure. As	City responsible for inclusion of measure in construction specifications. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.

Table 9-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
feasible, the test shall be conducted in an inconspicuous location. Pressure washing shall be limited to the area where the new intake structure will be cast, with approximately 1-foot buffer. A bonding agent such as a high-solids, water-based emulsion admixture suitable for modifying Portland cement compositions, shall be spray applied to the dam face within the limits of the new concrete formwork for the new intake structure.		
31. Documentation of the historical resource. The City will work with a qualified architectural historian to develop interpretative text and content for a dedicated webpage on the City's public website that explains the history of the site and its importance within the water management system. This text and supporting content (historic era images) will be utilized to develop a brochure with a one-time limited pressing for distribution to local libraries and museums. In addition, the City will include a brief history of the project site as an entry in its Santa Cruz Municipal Utilities Review, a quarterly newsletter that is sent to all customers in the Water Service Area.	City responsible for hiring a qualified architectural historian.	Distribution of materials and newsletter prior to construction.
Project-Specific Practices for Wildfire Hazards		
32. Internal combustion engine equipment shall include spark arrestors, fire suppression equipment (e.g., fire extinguishers and shovels) must be stored on site 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. Contractor responsible for implementation.	Include measure in construction specifications. Implement during construction.

WATER COMMISSION
INFORMATION REPORT

DATE: 2/24/2021

AGENDA OF: March 1, 2021

TO: Water Commission

FROM: Sarah Easley Perez, Principal Planner

SUBJECT: Urban Water Management Plan – Approach to Water Service Reliability and Drought Risk Assessment

RECOMMENDATION: That the Water Commission accept a presentation on the approach to the water service reliability and drought risk assessment in the 2020 Urban Water Management Plan.

BACKGROUND: California Water Code (Sections 10610-10656 and 10608) requires all urban water suppliers that either provide over 3,000 acre feet of water annually or serve more than 3,000 urban connections to prepare a Urban Water Management Plan (UWMP) every five years. The purpose of the UWMPs is to support long term resource planning to help ensure adequate water supplies are available across the state to meet existing and future water needs. After adoption by local jurisdictions or agencies, UWMPs are submitted to the California Department of Water Resource (DWR). Information collected and compiled from the UWMPs is useful for local, regional, and statewide water resources planning with the goal of ensuring water supply sustainability and serves as the basis of reporting by DWR to the California Legislature on the status of water supply planning in the state.

For each UWMP cycle, DWR provides guidance for plan preparation and obligatory submittal tables based on statutory requirements. DWR is currently finalizing guidance for the 2020 UWMP cycle. It is recommended that each UWMP includes the following sections:

1. Introduction and Overview
2. Plan Preparation
3. System Description
4. Water Use Characterization
5. SB X7-7 Baselines and Targets
6. Water Supply Characterization
7. Water Service Reliability and Drought Risk Assessment
8. Water Shortage Contingency Plan
9. Demand Management Measures
10. Plan Adoption, Submittal and Implementation

The 2020 UWMPs are due to be submitted to DWR in summer 2021. The Water Department last prepared an UWMP in 2016, the City of Santa Cruz 2015 UWMP, which was adopted and submitted to DWR in August 2016. Preparation of the 2020 UWMP is now underway.

DISCUSSION: An approach has been developed to support the required analysis for Section 7, Water Service Reliability and Drought Risk Assessment, in the 2020 UWMP. Assessing water service reliability is the fundamental purpose of the UWMP. The UWMP must include consideration of the reliability of meeting customer water demand over a twenty-year planning horizon by analyzing plausible hydrologic variability, climate conditions, and other factors that affect water supply and customer water use. In addition, and new to the 2020 UWMP cycle, a drought risk assessment is required to evaluate water supply risk under a severe drought period lasting for the next five consecutive years.

FISCAL IMPACT: None.

PROPOSED MOTION: Motion to accept a presentation on the approach to the water service reliability and drought risk assessment in the 2020 Urban Water Management Plan.

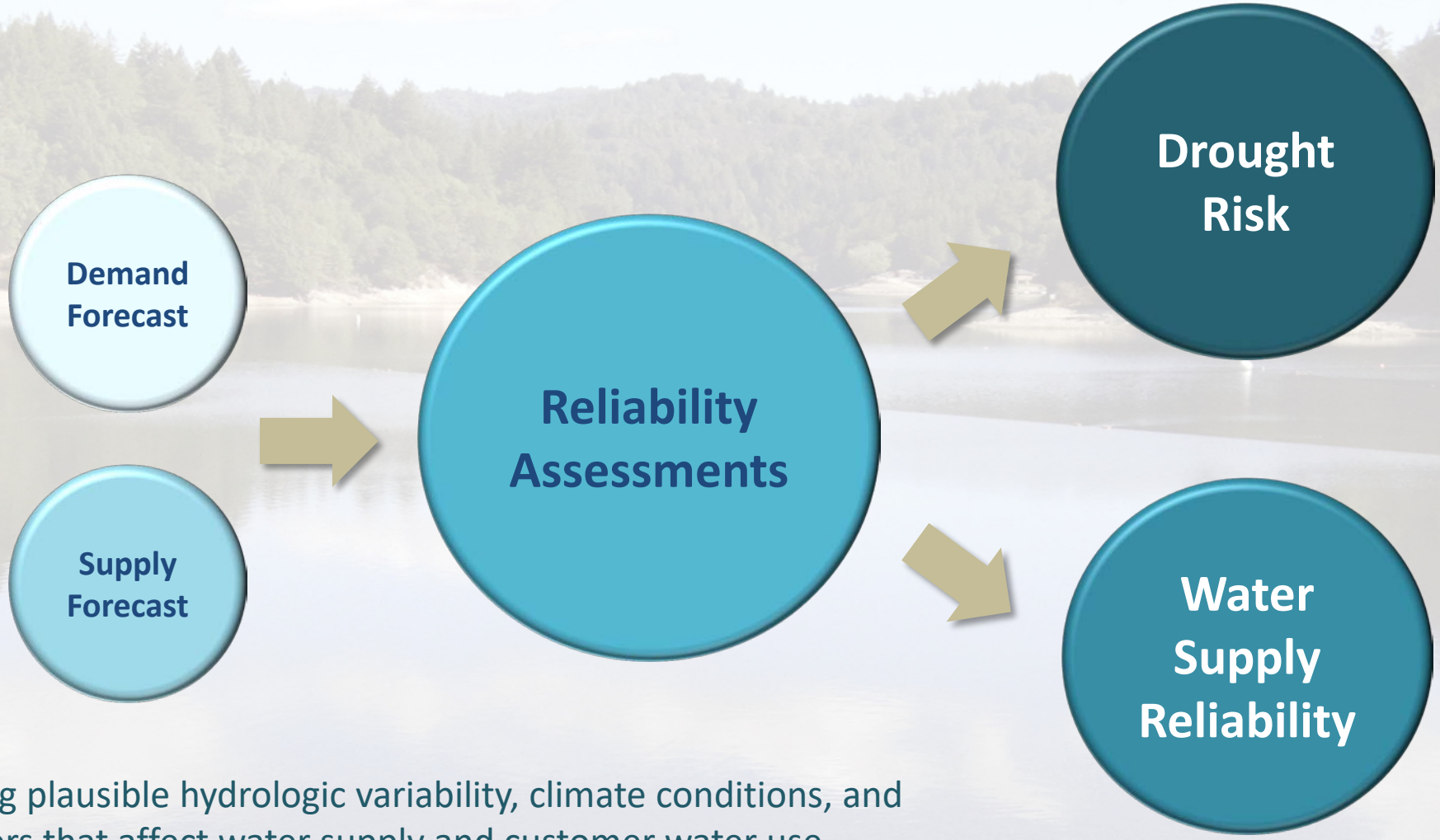
ATTACHMENTS:
1. Presentation 2020 Urban Water Management Plan: Water Service Reliability and Drought Risk Assessment Approach


2020 Urban Water Management Plan:
Water Service Reliability and
Drought Risk Assessment Approach
Our Water, Our Future
SANTA CRUZ
Water Department

Presentation Overview

1. UWMP Reliability Assessment Overview
2. Assessment Inputs
   - Water Demand Forecast
   - Water Supply Forecast
3. Drought Risk Assessment
4. Water Supply Reliability Assessment

UWMP Reliability Assessment Overview



Considering plausible hydrologic variability, climate conditions, and other factors that affect water supply and customer water use

Input: Water Demand Forecast

- From Long Term Water Demand Forecast by M.Cubed
  - Econometric demand forecast
- Forecasts demand through 2045
- Spring update planned based on rate study

Input: Water Supply Forecast

- From Confluence® water supply modeling by Gary Fiske
  - Dependent on demand, update may be required
- Hydrologies used
  - Historic Record: 1937 – 2015
  - Climate Change: CMIP-5 Mod
- Assumes CIP and supply project implementation by 2030

Drought Risk

Assessment: Drought Risk

- Assesses a 5-year drought sequence following 2020
- Hydrologic years used in supply modeling:

	Historic Hydrology	Climate Change Hydrology
5 Consecutive Dry Years	1973 - 1977	5-year Sequence with Greatest System Stress

Water Supply Reliability

Assessment: Water Supply Reliability

- 5-Year analysis increments from 2025 – 2040, recommended through 2045
- Assessment of each as average, single dry, and five-year drought sequence
- Hydrologic years used in supply modeling:

	Historic Hydrology	Climate Change Hydrology
Average Year	2010	Year Closest to Average
Single Dry Year	1977	Single Driest Year
5 Consecutive Dry Years	1973 - 1977	5-year Sequence with Greatest System Stress


Thank You
Any Questions?
Our Water, Our Future
SANTA CRUZ
Water Department

WATER COMMISSION
INFORMATION REPORT

DATE: 2/25/2021

AGENDA OF: March 1, 2021

TO: Water Commission

FROM: Ben Pink, Environmental Programs Analyst
Rosemary Menard, Water Director

SUBJECT: Reimagining Water Conservation

RECOMMENDATION: That the Water Commission receive information analyzing the effectiveness of the Santa Cruz Water Department's water conservation programs and policies and provide feedback to staff on ideas to consider related to the future of water conservation.

Continuing experience and analyses undertaken as part of implementing the Council-approved Water Supply Augmentation Strategy has focused staff attention on the role and future of demand management activities as part of the Department's ongoing water resources management efforts. This agenda item is intended to provide Water Commissioners with both a historical perspective of the topic and also to pose questions that are important in considering what provisions of water demand management to focus on going forward.

BACKGROUND

History of Commitment and Action on Water Conservation

The City of Santa Cruz has had a long-standing commitment to water conservation since the 1980s and offers a variety of programs, informational materials and incentives to help city water customers become more water efficient. In the year 2000, the City adopted a Water Conservation Master Plan (WCMP), the goal of which was to reduce water demand system-wide by 282 MG per year in 2010. Through a variety of programs as well as the plumbing code regulations, customers saved over 330 MG of water per year through 2010 and beyond.

In 2011, the City-sponsored a survey study of its customers called the Residential and Commercial Baseline Water Use Survey Program, otherwise known as the "Baseline Survey". This study's purpose was to develop a picture and understanding of the state of water using equipment within the service area. The study found that significant progress had been made in achieved in improving indoor water use efficiency. The survey findings also provided a basis for

estimating additional conservation potential and informed future planning for water conservation initiatives.

In 2013, the City contracted with Maddaus Water Management to develop an updated WCMP. The goal of the updated plan was to define the next generation of water conservation activities to help the community improve water use efficiency. By this point in the development of water conservation initiatives by water utilities around the world, improving customer water use efficiency was recognized as a very cost-effective way to manage water resources to support long-term community and environmental benefits. Implementation of water conservation programs was also seen as an important strategy for ensuring compliance with the State's SB X7-7 requirements to reduce water usage by 20% by the year 2020.

With the Maddaus Water Management work underway in parallel with the work of the City Council appointed Water Supply Advisory Committee (WSAC) the role of water conservation in improving water supply reliability was certainly a topic considered by the WSAC. A number of WSAC members were extensively involved in reviewing the work being done by City staff and Maddaus Water Management and helped shape the WCMP ultimately adopted by the City in 2017.

Details of the 2017 WCMP:

The 2017 WCMP consisted of two main parts:

1. A demand and conservation analysis for 2015-2035, and
2. An evaluation of conservation savings potential for the same time period.

Demand Projections:

The first step in the analysis was to review and analyze historical water use production and billing data. The process built on prior efforts and was updated using the 2015 City of Santa Cruz Water Demand Forecast prepared by David Mitchell of M-Cubed. Historical water use, population projections, and the most recent plumbing code information were used to create a demand forecast for the years mentioned.

The following table from the WCMP executive summary shows the demand projections developed as part of the plan:

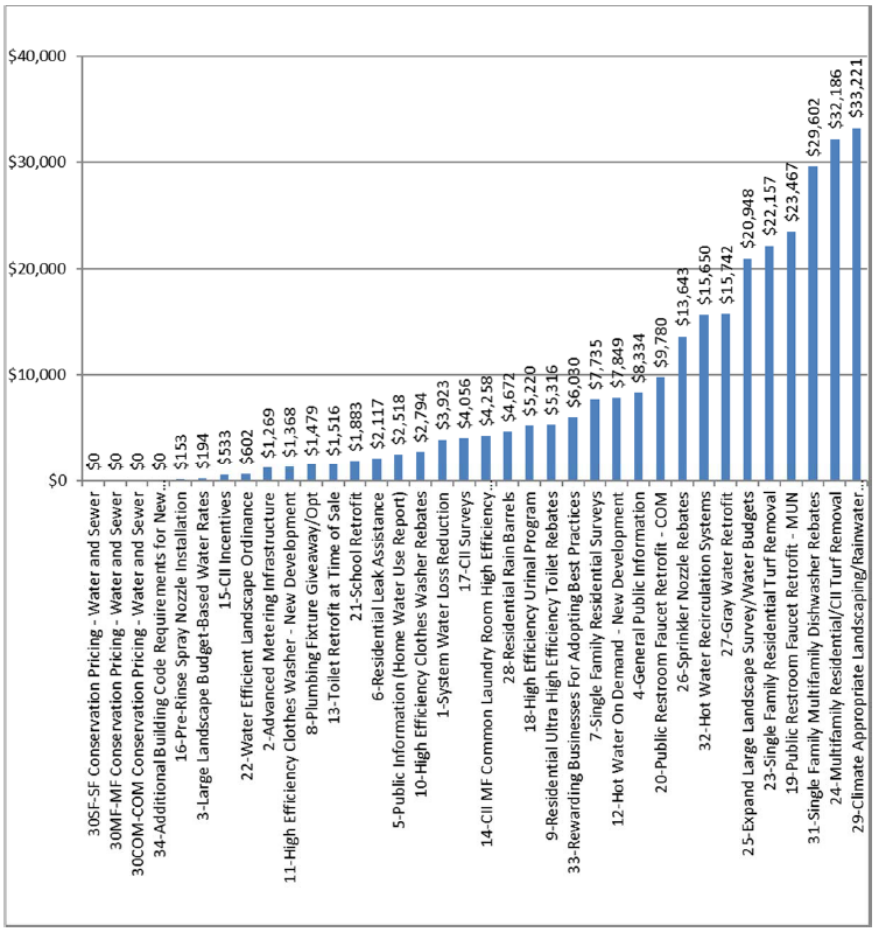
	2020	2025	2030	2035
Baseline Demand (MGY)	3,560	3,636	3,743	3,838
Demand with Plumbing Code (MGY)	3,464	3,456	3,474	3,510
Demand with Plumbing Code and Recommended Program (MGY)	3,327	3,225	3,205	3,220

Source: City of Santa Cruz. DSS Model. Section: Results. Feb 16. 2016.

It should be noted that the average total annual production in the period 2016-2018, the new base year period for the newly updated Water Shortage Contingency Plan (WSCP), is 2,600 MGY. This represents a 27% difference (decline) in production compared to the 2020 baseline demand projection shown for 2020 in the table above.

Long Term Conservation Program Savings:

Once the demand forecast was completed, a list of conservation measures was analyzed using Maddaus Water Management least-cost planning tool called the DSS model. The analysis included all the conservation measures selected by the City staff, as well as six additional measures as a result of a joint effort between staff and the WSAC members. Conservation pricing and additional building code requirements for new development were not sufficiently developed to be modeled individually at the time. The figure below provides a summary of the various programs modeled and ultimately included in the recommended WCMP, showing that the costs per program analyzed ranged from $0 to over $33,000 per MG.



Notes:

1. Units are $/MG.
2. Source: City of Santa Cruz. DSS Model, Section: Results, Feb 16, 2016.

The recommended package of programs in the WCMP was estimated to produce of demand reduction 137 MGY in 2020 and 294 MGY in demand reductions by 2035. The cost of the recommended package of programs per million gallons saved was $4,572/MG or approximately $1,494/acre-foot. The following table from the WCMP executive summary shows the long-term conservation program savings from the recommended package of programs over baseline demand, and includes the effects of plumbing code changes on demand as well.

Conservation Program	2020	2025	2030	2035
Plumbing Code (MGY)	96	179	269	329
Recommended Program (MGY)	137	232	269	291
Recommended Program with Plumbing Code Savings (MGY)	233	411	538	619

As part of the WSAC's work it received briefings on and made recommendations about the general approach to considering cost effectiveness of demand management program options. For example, WSAC recommended that rather than making decisions on which programs to include in the WCMP based on the cost effectiveness of each program on its own, that a "bundled" approach using average cost per million gallons of water saved for the whole suite of recommended programs was more appropriate.

So, while the average cost per MG of water saved through these programs is $4,572, the figure above illustrates that some programs are significantly more expensive than others. The cost of water saved per program as described in the WCMP was compared to a reference figure of $10,000/MG; this was a threshold used by WSAC, above which programs would not be recommended. The WCMP stated "*Several of the measures addressing peak season water use have the highest unit costs, but, together as a package, the Recommended Program is $4,572/MG, well below $10,000/MG (City of Santa Cruz, 2016), the maximum level established by the WSAC, which is lower than the expected unit cost of supply augmentation projects recommended to be pursued as a result of the WSAC's work.*"

Attachment 1, included at the end of this staff report, provides an overview of the current status of implementation of the programs included in the 2017 WCMP.

Putting the findings of the 2017 WCMP in today's context:

Despite the fact that customer water demand characteristics have changed significantly in recent years, the fundamental water supply reliability situation in Santa Cruz has not changed in decades. Santa Cruz has a water supply challenge defined by a lack of storage, which results in a high potential for water supply deficits during a dry year and/or multiple dry years. Even with lower demand, this water supply gap during severe shortages ranges from approximately 700 million gallons (MG) to about 1.1 billion gallons (BG) per year depending on the climate change assumptions made. Further, as documented by the 2015 recommendations of the Water Supply Advisory Committee (WSAC), water conservation cannot solve this water supply gap; water supply augmentation is needed to solve this problem.

The significant changes in water demand over the last decade began to become evident when water demand in the Santa Cruz service area did not rebound following the drought of 2014-2015. In the intervening years since that drought, demand has stayed at the same low levels experienced during the drought. The new demand forecast prepared by David Mitchel- for the department in January 2021 and presented to the Water Commission on February 1, 2021 projects that demand, out to the year 2035, will continue the current low-level trend, which has demand at 25% less than that predicted for 2-35 year in the 2015 Urban Water Management Plan (UWMP).

Current levels of customer demand and the new long term forecast indicate that the Santa Cruz community has achieved levels of water conservation well beyond the levels of anticipated as a product of the programmatic conservation included in the WCMP, and has done so without the associated spending on program implementation that the WCMP had envisioned. As described by David Mitchell in his recent technical memo prepared to accompany the Water Commission presentation on the updated forecast, the water savings that we have seen in the last five years have been achieved primarily through the effects of a combination of increased water rates and customer water use behavior changes as a result of the 2014-2015 drought. Further, in preparing the updated forecast, Mr. Mitchell has included no additional programmatic conservation in the forecast because to do so would basically double count programmatic conservation savings in addition to savings already achieved. In his forecast, Mr. Mitchell also established a floor of 36 gallons per person per day (gpcd) for residential users of the Santa Cruz water, a figure that has already been achieved, and is considered highly efficient for residential indoor use. These assumptions raise significant policy and programmatic issues related to the future of water conservation and demand management in the Santa Cruz system that need to be sorted out as part of the preparation of the updated Urban Water Management Plan, which is under development at this time.

DISCUSSION:

Reimagining Water Conservation

The WCMP lays out a program that was intended to achieve results over a 20-year time horizon. For reasons already presented and described, the goal of the programmatic demand reductions has been achieved without the need to implement the identified programs. Other reasons to consider continuing to implement water conservation include the need to meet regulatory requirements, maintaining the ability to support customers with high bills and community expectations about the future of water conservation and demand management programs.

Per Capita Water Use and Regulatory Compliance:

Urban water use in California is increasingly a target of state regulations. Examples include the standardized requirements for Water Shortage Contingency Plans (WSCP) that has heavily influenced the development of the 2021 updated WSCP. Another example is required compliance with SBX7-7, a required reduction in per capita water use of 20% by 2020. For Santa Cruz, the 2020 system-wide water use target was 110 gallons per capita per day (gpcd). Santa Cruz's actual gross per capita water use for 2020 was 73 gpcd, which demonstrates that Santa Cruz has already achieved significant reductions in system-wide per capita water use.

Since the 2014 – 2015 drought, the state has developed a new water conservation framework that consists of a multi-part water use objective for each water utility. **The residential gpcd water use objective in this new framework is initially 55 gpcd** (residential per capita use). **The actual residential per capita water use for the year 2020 was 47 GPCD.**

City staff carefully follows and participates in the development of state regulations related to urban water use. Looking forward and evaluating the potential need for further water

conservation to meet current or future regulatory requirements, staff does not anticipate that Santa Cruz will have issues maintaining regulatory compliance in the foreseeable future. This means that the challenges of meeting regulations alone are not a motivation for further implementation of the 2017 WCMP or any demand management program.

Customer Assistance:

On an individual basis, many customers seek advice, assistance, expertise and even financial incentives for actions that they take or are considering taking to improve water use efficiency and/or manage or lower their water bills. Certainly, the shift in outdoor water use patterns in the single-family residential sector has been incentivized by the rate structure adopted in 2016 that was based on a "the more you use, the more you pay" approach.

Programmatic water conservation efforts provide tools to staff to assist customers in their water use efficiency efforts by, for example, providing rebates for the removal of turf in residential landscapes, or rebates for the purchase of water-efficient washing machines or dishwashers. Home water audit services and high-bill investigation services historically offered by City conservation staff helps customers identify and take steps to repair leaks or replace older, less water-efficient appliances with newer more efficient ones.

Some key questions related to the potential purpose of continuing to offer some form of conservation programs and services include:

- On a going-forward basis, to what degree does the City need to maintain and continue to financially support conservation programs and services to meet the needs of individual customers?
- Regarding financial incentives and rebate programs, what role should these types of efforts play in a future where water demand is generally very efficient and it is more likely that individual customers rather than customers as a whole would benefit from these approaches?

Community Expectation:

Clearly, the Santa Cruz customers are both very aware of how they use water and are very committed to being water efficient. Customer behavior in this situation is likely the result of individual and community values as well as water pricing incentives. As the stewards of our community's critically important water resources, the Water Department is and should reasonably be expected to be the champion for water use efficiency.

Some key questions related to meeting community expectations as a purpose for continuing to invest in programmatic conservation efforts include:

- What level of conservation program implementation and spending is appropriate going forward given that further demand hardening may cause problems for the community if a water shortage is declared and customers are asked or required to reduce usage further than current levels?
- What are the key community values and expectations that need to be considered in developing any future water conservation program?

- What are the key conditions for success that the Water Department needs to establish and maintain to successfully make any transition in the kinds of conservation programs and services offered?

Following this discussion, staff will use the Water Commission's feedback to begin shaping possible water conservation programs and service options for consideration at a future Water Commission meeting and for inclusion in the updated UWMP.

FISCAL IMPACT: None at this time

PROPOSED MOTION: No motion is required for this item; the request is for feedback to staff only.

ATTACHMENTS:
1. WCMP Water Conservation Program Action Status 2-22-2021

Attachment 1 -- Water Conservation Program Status 2-22-2021

Utility Measures	Status	Residential Measures	Status	CII Measures	Status	Landscape Measures	Status
System Water Loss Reduction	ongoing	Residential Leak Assistance	not yet implemented	CII Incentives	ongoing	Large Landscape Budget-Based Water Rates	ongoing
Advanced Metering Infrastructure	To begin in 2021 with meter replacement program	Single Family Residential Surveys	ongoing	Pre-Rinse Spray Nozzle Installation	completed	Water Efficient Landscape Ordinance	ongoing
SF, MF, COM Conservation Pricing - Water and Sewer	ongoing	Plumbing Fixture Giveaway/Opt	ongoing	CII Surveys	not yet implemented	Single Family Residential Turf Removal	ongoing
General Public Information	ongoing	Residential Ultra High Efficiency Toilet Rebates	ongoing	High Efficiency Urinal Program	not yet implemented	Multifamily Residential/CII Turf Removal	ongoing
Public Information (Home Water Use Report)	ongoing	High Efficiency Clothes Washer Rebates	ongoing	Public Restroom Faucet Retrofit - MUN	not yet implemented	Expand Large Landscape Survey/Water Budgets	not yet implemented
		Gray Water Retrofit	ongoing	Public Restroom Faucet Retrofit - COM	not yet implemented	Sprinkler Nozzle Rebates	not yet implemented
		Hot Water On Demand - New Development	not yet implemented	School Retrofit	not yet implemented	Residential Rain Barrels	tempoorarily halted
		Toilet Retrofit at Time of Sale	ongoing	Hot Water On Demand - New Development	not yet implemented	Climate Appropriate Landscaping and Rainwater Infiltration	not yet implemented
		Single Family/Multifamily Dishwasher Rebates*	ongoing	Toilet Retrofit at Time of Sale	ongoing		
		Hot Water Recirculation Systems*	ongoing	CII MF Common Laundry Room High Efficiency Clothes Washer*	ongoing		
		Additional Building Code Requirements for New Development*	ongoing	Rewarding Businesses for Adopting Best Practices*	not yet implemented		
		Innovation Incubator Program*	not yet implemented	Hot Water Recirculation Systems*	ongoing		
				Additional Building Code Requirements for New Development*	ongoing		
				Innovation Incubator Program*	not yet implemented		

COST LEGEND	
LOW	$0-5,000/MG
MED	$5,001-10,000/MG
HIGH	>$10,001/MG

Katy Fitzgerald

From: Rosemary Menard
Sent: Tuesday, February 16, 2021 3:00 PM
To: Rosemary Menard
Cc: Katy Fitzgerald
Subject: FW: UCSC growth & water policy

As noted, I have been asked by Rick Longinotti to forward this information to you.

Katy, please include it in correspondence received at the end of the next Water Commission Agenda, with no action or staff report.

Best

Rosemary

From: Rick Longinotti [mailto:longinotti@baymoon.com]
Sent: Tuesday, February 16, 2021 2:31 PM
To: Rosemary Menard
Cc: Sierra Ryan; Doug Engfer
Subject: UCSC growth & water policy

Hi Rosemary,

Could you please forward this to the Water Commission?

Thanks,
Rick

Dear Commissioners,

I am writing to ask that you review the City's comments on the Draft EIR for UCSC's Long Range Development Plan (LRDP) before the deadline to submit the comments on March 8th.

Of particular importance in a City letter would be a request for the University to comply with state law, and seek LAFCO approval if it wants the City to extend water service to an area of campus that is outside the City water service area. This position would be in alignment with past City policy. In the Comprehensive Settlement Agreement that settled the City's lawsuit against UCSC in 2008, the University agreed to apply to LAFCO in seeking extraterritorial water service. However, UCSC apparently considers that commitment to expire with the adoption of a new LRDP. The current Draft EIR states, "UC Santa Cruz does not believe that further compliance with state or local laws, including approval by the Local Agency Formation Commission (LAFCO), is required for the campus to receive increased service for the development of those portions of the campus that lie in unincorporated Santa Cruz County."

The reason a LAFCO process it is important to existing customers of the City's water is that LAFCO's policies offer protection from the impact of growth on our community's water reliability. LAFCO policy states, "In cases where a basin is overdrafted or existing services are not sustainable, a boundary change proposal may be approved if there will be a net decrease in impacts on water resources." In order to comply with this policy, UCSC may need to find ways to offset increased water demand due to development in the forest north of campus. This would contribute to our efforts to sustain water reliability.

Thank you,

Rick