CITY OF SANTA CRUZ
Water Department

Water Commission Agenda
Regular Meeting
7:00 p.m. – April 3, 2017
Council Chambers
809 Center Street, Santa Cruz

Agenda

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 No action shall be taken on this item.

Announcements No action shall be taken on this item.

Consent Agenda (Pages 1-50)

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. Accept the City Council actions affecting the Water Department ☆ (Pages 1-4)
2. Approve the March 6, 2017, Water Commission Minutes ☆ (Pages 5-12)
3. Receive and discuss the information regarding the 2017 Water Supply Outlook. ☆ (Pages 13-20)
4. Recommend that the City Council approves the FY 2018 – FY 2020 Capital Improvement Program budget ☆ (Pages 21-44)
5. Accept the Water Department Strategic Framework for Communications on Water Supply Advisory Committee Recommendations ☆ (Pages 45-48)
6. Accept the updated Water Commission meeting schedule for 2017☆ (Pages 49-50)

Items Removed from the Consent Agenda

General Business (Pages 51-88)

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.

7. Revision of Miscellaneous Fees ✯(Pages 51- 62)

Recommendation: That the Water Commission recommend that the City Council approves the Water Department's updated Miscellaneous Fees.

8. Scopes of work for Water Supply Augmentation Strategy Work Plan: Raftelis - Financial Analysis of RW/ Dudek - Update of Desal project ✯(Pages 63-80)

Recommendation: That the Water Commission accept information and provide feedback on the scopes of work for Raftelis Financial Consultants Inc. (Los Angeles CA) for Phase 1 of the Water Reliability Impact Study and Dudek (Santa Cruz CA) for the Preparation of a Desalination Feasibility Update.

9. Memorandum of Agreement between the City of Santa Cruz and Soquel Creek Water District regarding treated wastewater effluent for use in a potential future Pure Water Soquel Project ✯(Pages 81-88)

Recommendation: That the Water Commission recommend that the City Council approve the Memorandum of Agreement between the City of Santa Cruz and Soquel Creek Water District regarding treated wastewater effluent for use in a potential future Pure Water Soquel Project.

Subcommittee/Advisory Body Oral Reports

Director's Oral Report No action shall be taken on this item.

Adjournment The next meeting of the Water Commission is tentatively scheduled for May 1, 2017, at 7:00 p.m. in Council Chambers.

✯*Denotes written materials included in packet*

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 the 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.

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 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.

WATER COMMISSION
INFORMATION REPORT

DATE: 3/30/2017

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: City Council items affecting the Water Department

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

March 14, 2017

Contract Amendment No. 1 for Professional Services Agreement with Trudy Cooper and Associates (WT)

Motion **carried** to approve Contract Amendment No. 1 for the Water Department Strategic Planning and Organizational Development agreement with Trudy Cooper and Associates in a form approved by the City Attorney.

Graham Hill Water Treatment Plant Concrete Tanks, Design and Construction Support Services – Award of Contract and Authorization to Execute Change Orders with West Yost Associates (WT)

Motion **carried** to accept the proposal of West Yost Associates, (Davis, Walnut Creek, CA) for design and construction support services for the Graham Hill Water Treatment Plant Concrete Tanks, Design and Construction Support Services in the amount of $1,772,900 and to authorize the City Manager to execute an agreement, in a form to be approved by the City Attorney, and reject all other proposals.

Motion **carried** to authorize the Water Director to approve change orders with West Yost Associates in a form approved by the City Attorney for amounts that are within the approved adjusted budget.

Joint Meeting of the Santa Cruz City Council and Water Commission: Briefing on City Water Supply Advisory Committee Final Report on Agreements and Recommendations (WT)

The Santa Cruz City Council and Water Commission **received** and **discussed** information from staff on the Water Supply Advisory Committee Agreements and Recommendations Final Report (October 2015) and **provided** appropriate feedback and direction to staff.

March 28, 2017

University Tank No. 5 Replacement Project – Maintenance Tank - Budget Adjustment (WT)

Motion **carried** to approve the plans, specifications, and contract documents for the University Tank No. 5 Replacement Project - Maintenance Tank and authorize staff to advertise for bids. The City Manager is hereby authorized and directed to execute the contract as authorized by Resolution No. NS-27,563 in a form approved by the City Attorney.

Resolution No. NS-29,214 was adopted transferring funds from the North Coast System Rehabilitation project to fully fund the University Tank No. 5 Replacement Project - Maintenance Tank project.

Restoration Maintenance and Monitoring for Habitat Mitigation Areas- North Coast System Rehabilitation Project- Phase 3 Coast Segment (WT)
Motion **carried** to accept the proposal of Ecological Concerns Inc. (ECI) in the amount of $131,856 for habitat restoration services and Year 1 of the Maintenance and Monitoring Program, and to authorize the City Manager to execute an agreement in a form approved by the City Attorney.

Cedar Street Water Main Replacement - Notice of Completion (WT)
Motion **carried** to accept the work of Pacific Underground Construction, Inc. (San Jose, CA) as complete per the plans and specifications and authorize the filing of a Notice of Completion for the Cedar Street Water Main Replacement.

Ratification of an Emergency Purchase Order for Granite Construction (WT)
Motion **carried** to ratify an Emergency Purchase Order with Granite Construction Inc. (Watsonville, CA), in the amount of $399,000 for construction services related to the storm-related failures occurring on the Newell Creek Pipeline.

Graham Hill Water Treatment Plant Filter Rehabilitation and Upgrades Project – Notice of Completion (WT)
Motion **carried** to accept the work of Anderson Pacific Engineering Construction, Inc. (Santa Clara, CA) as complete per the plans and specifications and authorize the filing of a Notice of Completion for the Graham Hill Water Treatment Plant Filter Rehabilitation and Upgrades Project.

Bay Street Tanks Solar Project – Approval of Project and Award of Contract (WT)
Motion **carried** to approve the project to install the small Solar Photovoltaic (PV) system at the Bay Street Tank site based on the information provided including project economics, accept the proposal of Sandbar Solar in the amount of $826,000 for the design, procurement, and installation of the Bay Street Reservoir Solar PV System, and to authorize the City Manager to execute a contract agreement with Sandbar Solar in a form approved by the City Attorney.

North Coast System Rehabilitation-Phase 3 – Construction Inspection and Contract Management Services – Ratification of Contract Amendment No. 2 (WT)
Motion **carried** to ratify Contract Amendment No. 2 with Covello Group, Inc. (Walnut Creek, CA) in the amount of $132,500 for Construction Inspection and Contract Management Services, in a form approved by the City Attorney.

Motion **carried** to authorize the Water Director to approve future change orders with Covello Group, Inc. in a form approved by the City Attorney for amounts that are within the approved adjusted project budget.

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

ATTACHMENTS: None.

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CITY OF SANTA CRUZ
Water Department

Water Commission
7:00 p.m. –March 6, 2017
Council Chambers
809 Center Street, Santa Cruz

Minutes of a Water Commission Meeting

A moment of silence was held to acknowledge the passing of Nicole Dennis's son, Elijah Dennis-Benford.

Call to Order Chair Wilshusen called the meeting to order at 7:04 p.m. in the City Council Chambers.

Roll Call

Present: L. Wilshusen (Chair), D. Engfer (Vice-Chair), D. Baskin, J. Mekis, A. Schiffrin, D. Schwarm, W. Wadlow

Absent: None.

Staff Present: R. Menard, Water Director; H. Luckenbach, Deputy Director/Engineering Manager; E. Cross, Community Relations Specialist; M. Kaping, Management Analyst; A. Poncato, Administrative Assistant III.

Others: Two members of the public.

Statements of Disqualification: There were no statements of disqualification.

Oral Communications: Oral communications by S. McGilvray.

Announcements: There were no announcements.

Consent Agenda

1. City Council Actions Affecting Water.

Commissioner Schiffrin moved the Consent Agenda as amended. Commissioner Baskin seconded.

VOICE VOTE: MOTION CARRIED
AYES: All.
NOES: None.
ABSENT: None.

Items Removed from the Consent Agenda

2. Approve the February 6, 2017, Water Commission Minutes.

Prior to the meeting, both Ms. Menard and Commissioner Engfer had received a question from a member of the public regarding a statement made in the February minutes. The question was whether it was an accurate representation of the State's policy to say that Direct Potable Reuse (DPR) could be permitted on a case by case basis. During the discussion, it was concluded that the statement that DPR could be permitted on a case by case basis was an accurate reflection of what Ms. Dawn Taffler had said during her presentation, and thus the minutes themselves did not need to be corrected and, in fact, it would be inappropriate to amend them.

As part of this discussion, however, it became clear that regardless of the accuracy of the minutes themselves, there was an additional issue about whether Ms. Taffler's statement was correct. Several commissioners felt that as the State has no adopted policy that specifically provides them with the regulatory framework to use in reviewing and making a case by case decision about a proposed DPR process that it is, in fact, not able to permit DPR at this time.

On the other hand, material provided by Ms. Taffler in response to the initial citizen inquiry indicated that the Association of California Water Agencies had sent a letter to the State Water Resources Control Board recommending that it consider permitting DPR on a case by case basis if and as needed until the full regulatory framework was in place, and Ms. Taffler reported that State staffers had been open to this suggestion. Some Commissioners felt that this information indicated that the lack of an adopted regulatory framework at this time did not prohibit the State from acting on a case by case basis should a specific situation warrant such an action.

As a result of these various points of view, Commissioners were not able to reach agreement about whether Ms. Taffler's statement actually was an accurate portrayal of the State's policy.

Finally, Commissioner Mekis stated that the February meeting minutes omitted his question regarding constituents of emerging concern. His question was if the treatment technologies used to produce water for DPR and Indirect Potable Reuse (IPR) could reduce constituents of emerging concern. Ms. Taffler and Mr. Brian Pecson, of Trussell Technologies Inc., answered that all available data indicates that the treatment technology required to produce water for DPR or IPR would reduce constituents of emerging concern. While the minutes are not intended to be a detailed reflection of everything that is said at each meeting, it is appropriate to amend them in the event a Commissioner or member of the public believes that something important was left out.

Commissioner Schifrin moved the February 6, 2017, minutes as amended by the addition of the information provided by Commissioner Mekis. Commissioner Baskin seconded.
VOICE VOTE: MOTION CARRIED
AYES: All.
NOES: None.
ABSENT: None.

ABSTAIN: D. Schwarm due to absence from the February 6, 2017, Water Commission meeting.

General Business

3. Water Department Strategic Framework for Communications.

Ms. Menard introduced Ms. Cross who reviewed the goals for the tactics the Water Department is using to communicate with the community about the Water Supply Advisory Committee (WSAC) recommendations.

What can we expect with the new website implementation?

- The updated website will be more modern and user friendly. We received analytics which revealed the traffic each of our webpages received over the past 18 months. Pages that didn't receive as much traffic will either be removed or merged into other pages. The new website will be cleaner, more appealing, and easier to use.

Is this part of a broader community relations plan for the Water Department or is this the Department's community relations plan?

- This is part of the broader plan. This communications plan is focused on the WSAC recommendations.

Commissioner comments:

- Can the goals and objectives of the Strategic Framework for Communications be altered? If so, the first objective should be to build awareness of the urgent need for continuing action towards a long term water solution.
- The goal we should be communicating is that we need to find a water supply alternative that meets the City's long term needs. Even though the WSAC recommended the water supply options we are exploring now, the City Council has accepted the recommendations and gave direction to the Water Commission and Water Department staff to implement these recommendations. The information provided to the general public should be clear: that these are the City Council recommendations and this is the direction that the City wants to go.
- The second goal should be to maintain community awareness of, and buy-in for, a supplemental water supply because of the extreme risk of insufficiency and drought. The goal is to educate the public as to why we need a supplemental water supply.
- The community should know that even though these are the WSAC recommendations, they were adopted and endorsed by the City Council.

Staff agrees with these suggestions but points out that making the City Council own these recommendations may confuse the public into thinking that it is a City Council mandate and forget that these were the recommendations provided by the 14 member, community based, Water Supply Advisory Committee. It is important that the community remembers that we invested 18 months in an exhaustive process to deliver these recommendations.

Final Comments and Requests for Follow Up

- The 2016 Annual Report was well done.
- Use the term community leaders instead of the key influentials.
- It should be put forth that this is the policy of the City Council, not WSAC.
- Add a 7th strategy: Create public interaction between Commission and the public.
- To gain trust, we will continue to have the community members engage with staff.
- The public needs to know that we are trying to expand the water supply and create more water storage possibilities. We have a decision tree that we are working our way through, and we have preferred and less preferred options.
- This item should come back to the Commission with revisions of the goals and objectives based on the comments and the direction that the Commission has asked.
- Adding funding to next year's budget so Water Department staff can poll the public to ask how they feel about the city's water supply situation.

Public comments made by S. McGilvray.

Commissioner Schiffrin moved that this item is added to the next Water Commission meeting agenda with revisions to the goals and objectives based on the comments, concerns, and suggestions from the Commission and ask staff to consider adding additional funding to FY17-FY18 budget to conduct a public poll to measure the effectiveness of our community relations activities. Commissioner Mekis seconded.
VOICE VOTE: MOTION CARRIED
AYES: All.
NOES: None.
ABSENT: None.

4. Presentation on FY 2018- FY 2030 Draft Capital Improvement Plan (CIP).
Ms. Menard explained that this is the initial discussion of the Capital Improvement Plan and it will return to the Water Commission on April 3rd. City Council is holding a work session on the city wide CIP on April 4th, and City Council will take action on this item at their April 25th meeting. Ms. Menard introduced Ms. Luckenbach who provided a brief summary of the capital improvement plan. [Director's Note: subsequent to the Commission's meeting, the planned April 4th Council study session was cancelled and the CIP discussion at the Council may be being rescheduled until the May 9th meeting.]

Attachment A discussion

What is the money spent on the Aquifer Storage and Recovery project, listed under Water Supply Reliability & Studies?

- The money is being spent on Phase 2, the pilot study. This includes the purchase of property as needed, installation of new wells or modification of existing wells, and the testing of those wells.

Comments and Requests for Follow Up

- Staff will add an apostrophe to Years in the header of the Prior Years Spend column and/or a footnote to indicate that the Prior Years Spend was the cumulative prior years' spending, not FY 2017 spending.
- Staff will add a footnote to explain the inflation rate as well as indicating that the base dollars in the spreadsheet are 2016 dollars.
- Staff will update the future costs of the AMI project located under Upgrades or Improvement Projects. These were mistakenly omitted from the spreadsheet.
- Staff will remove $1,000,000 from the FY 2018 Request amount to the Water Resources Building project located under Upgrades or Improvement Projects, as this amount was added to the project in error.
- Since the Department does not know what the key projects are for the Water Supply Augmentation Strategy yet, staff will add definition to this as we move along. In the meantime, these are placeholder amounts.
- To avoid public confusion, a suggestion was made to change the project name from Laguna Dam and Majors Creek Dam to something that indicated they already exist (and that this is a rehabilitation project) and that they were included in the program-level analysis of the North Coast Pipeline Rehab Project.

Attachment B Discussion

Are we anticipating using either Beltz well 10 or 11 for Aquifer Storage and Recovery (ASR)?

- One of the wells will be evaluated to see if it is fit for ASR.

Are we considering building a second pipeline?

- There have been a lot of discussions to install a second pipeline between the Felton Diversion and Loch Lomond Reservoir with the premise that two pipes would facilitate the fill/draw cycle that would benefit the City from a water supply perspective. Gary Fiske concluded that it would not be worth installing a second pipeline. I.e., the second pipe does not provide such a water supply benefit. If we had a pipeline between those two points that functioned properly at the available capacity of the pump station, we could accomplish everything we need with two pipelines without building two pipelines. The current CIP project is evaluating the pipeline from this perspective.

Governor Brown allocated funds to emergency flood operations for the central coast that we may be eligible for. The Newell Creek Pipeline could qualify to receive some of those funds.

What is the capacity of the water treatment plant?

- The hydraulic capacity of the system is 24 mgd.

What is the maximum that we do use?

- The most we've used in the past few years has been between10-11 mgd in the summer months. The issues with the treatment plant are not hydraulic issues;

they are treatment process capacity issues. Investments likely to be made in the treatment facility are driven by treatment process improvements to give us a better capability to treat the water that comes into the treatment plant.

Will these improvements enhance our ability to deal with turbidity from our water sources?

- That is one of the big questions, and a lot of it has to do with issues as we start looking more at some of our treatment alternatives and supply alternatives. A lot of what we must achieve is driven by where we are going to go regarding water supply.

Where are the concrete tanks located?

- The concrete tanks referred to in the CIP are located at the Graham Hill Water Treatment Plant (GHWTP).

Comments and Requests for Follow Up

- Suggestion to add "Ranney Collector" to the Felton Diversion project description.
- Suggestion to mention "emergency draw down" in the Newell Creek Dam Inlet/Outlet project description.
- Suggestion to add a column to the spreadsheet to indicate which of these projects relate to the Water Supply Augmentation Strategy (WSAS).
- Staff will correct spelling of Infrastructure to the title on page 30.
- Staff will update the tense of the language of project description for water supply reliability project.
- Staff will provide and update on the status the environmental review of the Water Resources Building.
- Staff will update the description on the Main Replacement projects to describe how they differ in design, construction, funding.

Attachment C (handout at meeting) Discussion

What projects have changed their future trajectory based on the winter weather? Where is the reflection of what we learned over the past winter?

- The Newell Creek Pipeline project has changed as well as future phases of the North Coast System Rehab project. Our current plan is to hire a consultant to help us with prioritizing and implementing the series of projects needed to fully rehab/replace the North Coast and Newell Creek raw water pipelines.

Was the budget increase of the Water Main Replacement winter weather related? Why is the Long Range Financial Plan (LRFP) so out of whack?

- To get a project ready for the construction season (May – October) we have to award the project in April or the fourth quarter of a fiscal year. What tends to happen is that funds allocated in that fiscal year are encumbered on other, usually unplanned, main replacement work. As a result, we come up short and have to dip into the next fiscal year's budget. This one-time increase will rectify this situation, at least for a while.

Comments and Requests for Follow Up

- Make it clearer if/when city labor is included in these budget estimates for each CIP project.

5. March 14, 2017, Joint Meeting Presentation Overview**.**

Ms. Menard clarified that this joint meeting is an opportunity for the City Council members to get briefed on the WSAC recommendations and progress made on implementing them.

The draft joint meeting presentation does not describe the progress that has been made since the recommendations were accepted by the City Council on November 24, 2015.

- Additional slides will be added to the presentation to reflect the major progress that has been made.

Commissioner Schiffrin would like to change the agenda language to reflect the following:

1. A general overview of WSAC's Recommendations and Agreements and Council actions;
3. A progress report on the City's work during calendar 2016 to implement the Council's agreed upon work plan, and an overview of the key outcomes of the calendar 2017 work plan; and

What are our roles in this study session?

- This is an opportunity to talk to council, address any questions or concerns, and discuss what is and is not working. The goal of this meeting is to create some continuity with the new members of the City Council. This will also provide context for when the Council views our budget.

Comments and Requests for Follow Up

- Correct date on the cover of the slideshow to state March 14, 2017.
- Add language that we are achieving the results on time in a timely fashion. The Water Department is on schedule with the plan.
- Indicate that the Water Commission has been carrying out their responsibilities according to plan.
- Update language on the second slide, Background/Context: November 10 and 24 2015: Joint Water Commission – City Council Study Session and Council Action of the WSAC Agreements and Recommendations
- To simplify, just list the 3-4 WSAC recommendations. (Conservation, In-Lieu, ASR, Recycled water, Etc.…)
- The WSAC Recommended Adaptive Management Strategy chart is very confusing.
- Remove the terminology that came out of the WSAC recommendation, so it is easier to comprehend.
- Update title language on slide 9 to state: WSAC's Findings.
- Repeatedly state that we have a 1.2 billion gallon water supply gap.

- Point out that there is a possibility that there is always a chance that we may be in a situation where water does not come out of the tap, especially after multi-year droughts.
- Update Slide 8: Key Challenges Facing our Water Supply by adding Recurring Drought above all other challenges listed.
- Simplify language on slide 18.

Subcommittee/Advisory Body Oral Reports No items.

Director's Oral Report No action shall be taken on this item.

- Ms. Menard shared the specifically created agreement that gives Soquel Creek Water District (SqCWD) the option to not go through with the membrane bioreactor project. The goal is to give SqCWD clarity of availability of secondary treated affluent or advanced affluent.

Adjournment Meeting adjourned at 9:27 p.m. The next meeting of the Water Commission is scheduled for April 3, 2017, at 7:00 p.m. in Council Chambers.

Respectfully submitted,

Amy Poncato

Digitally signed by Amy Poncato
DN: cn=Amy Poncato, o=Water Department, ou=Administration, email=aponcato@cityofsantacruz.com, c=US
Date: 2017.04.03 10:32:20 -07'00'

Staff

WATER COMMISSION
INFORMATION REPORT

DATE: 3/30/2017

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Toby Goddard, Administrative Services Manager

SUBJECT: 2017 Water Supply Outlook

RECOMMENDATION: That the Water Commission receive and discuss the information regarding the 2017 Water Supply Outlook.

BACKGROUND: As winter gives way to warm, sunny weather, perhaps the image that people will remember longest about this extraordinary water year is the damaged spillway at Oroville Reservoir north of Sacramento. Closer to home, in Santa Cruz County, the forces of nature caused tens of millions of dollars in storm damage to local roads, the most in decades. Repairs are still being made to damaged sections of the water system. And, for the first time in years, most of California is finally out of the drought.

DISCUSSION: The numbers tell the story. Over four feet of rain has fallen in the City of Santa Cruz. Rainfall now measures 176 percent of normal for the season to date. Near the reservoir, rainfall totals range from 76 to 87 inches. Average stream flow in the San Lorenzo River for the months of January and February, calculated at 1,643 and 1,909 cubic feet per second respectively, were the highest ever recorded for those two months. Cumulative runoff since October 1 has now reached about 239,000 acre-feet and the water year classification is manifestly Wet. There are only two years in the hydrologic record that have been wetter, 1941 (265,000 ac-ft) and 1983 (283,000 ac-ft). And the year isn't over yet. Loch Lomond Reservoir is full and spilling. (Figures 1-3).

Taken together, the water supply outlook for 2017 is healthy. A conservative forecast of supply and demand for 2017 shows Loch Lomond Reservoir remaining above 80 percent of capacity at the end of October (Figure 4). Under the circumstances, there is no reason the City needs to declare a shortage or impose temporary restrictions on water use for 2017.

The forecast for 2017 has numerous uncertainties and assumptions factored in (Table 1). First is that availability of water from the City's north coast sources will be limited mainly by instream flow requirements, but also by storm damage to the Majors Creek pipeline. Bypass flows on the San Lorenzo River, which varies based on streamflow condition, are expected to be higher than ever experienced before, but don't begin to affect production from the river until about August.

Live Oak wells are assumed to be placed in service again in June. System water demand is conservatively forecast to be slightly higher (+5%) than in 2016, but substantially below where it was in 2013 (Figure 5). There is, however, considerable uncertainty about how the actual pattern in demand will evolve as customers gain more experience with the new rate system this summer and see another planned rate increase scheduled for July 1, 2017.

Emergency Conservation Regulation

On February 8, 2017, as expected, the State Water Resources Control Board adopted a resolution extending its emergency conservation regulations. The action was effective on February 22, 2017, and will expire in November 2017 unless rescinded sooner. The Board is expected to review these regulations in April or May and consider easing, changing, or lifting them. Like last year, the City's target under the regulation is to achieve at least an 8 percent reduction in water use compared to the same month in 2013. With all the rain in January and February this year, water production was down by 17 to 22 percent compared to 2013. Staff will continue to report monthly production to the state in compliance with the emergency regulation, as well as enforce water waste prohibitions. All reports of water waste received from field staff or the general public will continue to be tracked and followed up on appropriately on in accordance with Water Department policy.

FISCAL IMPACT: None.

PROPOSED MOTION: Motion to receive and discuss the information regarding the 2017 Water Supply Outlook.

ATTACHMENTS:
Figure 1: Cumulative Rainfall, City of Santa Cruz
Figure 2: Monthly Streamflow, San Lorenzo River at Big Trees
Figure 3: Cumulative Runoff and Water Year Classification
Figure 4: Projected Reservoir Drawdown
Figure 5: System Water Demand
Table 1: 2017 Annual Budget_Water Supply Forecast

Figure 1.

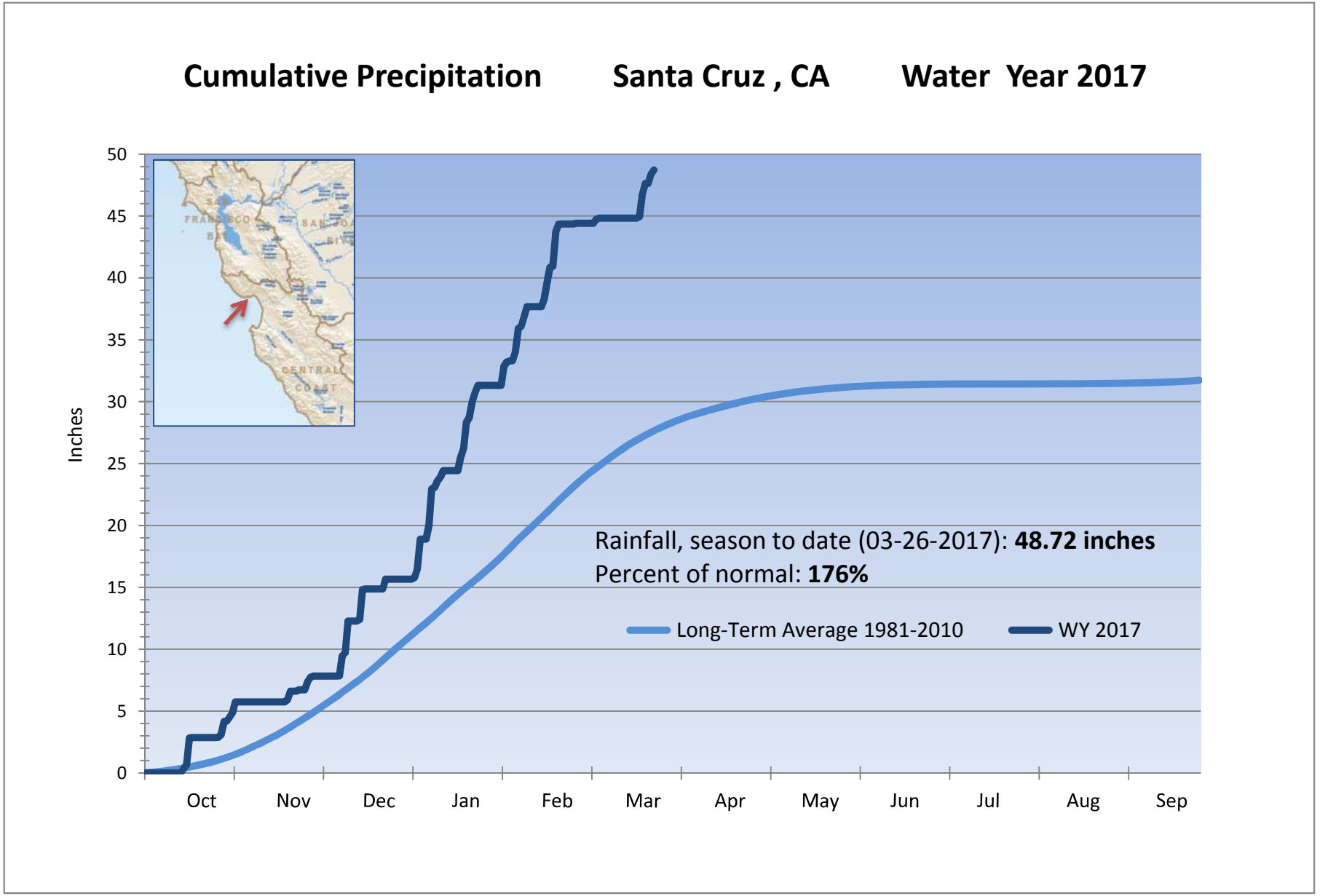
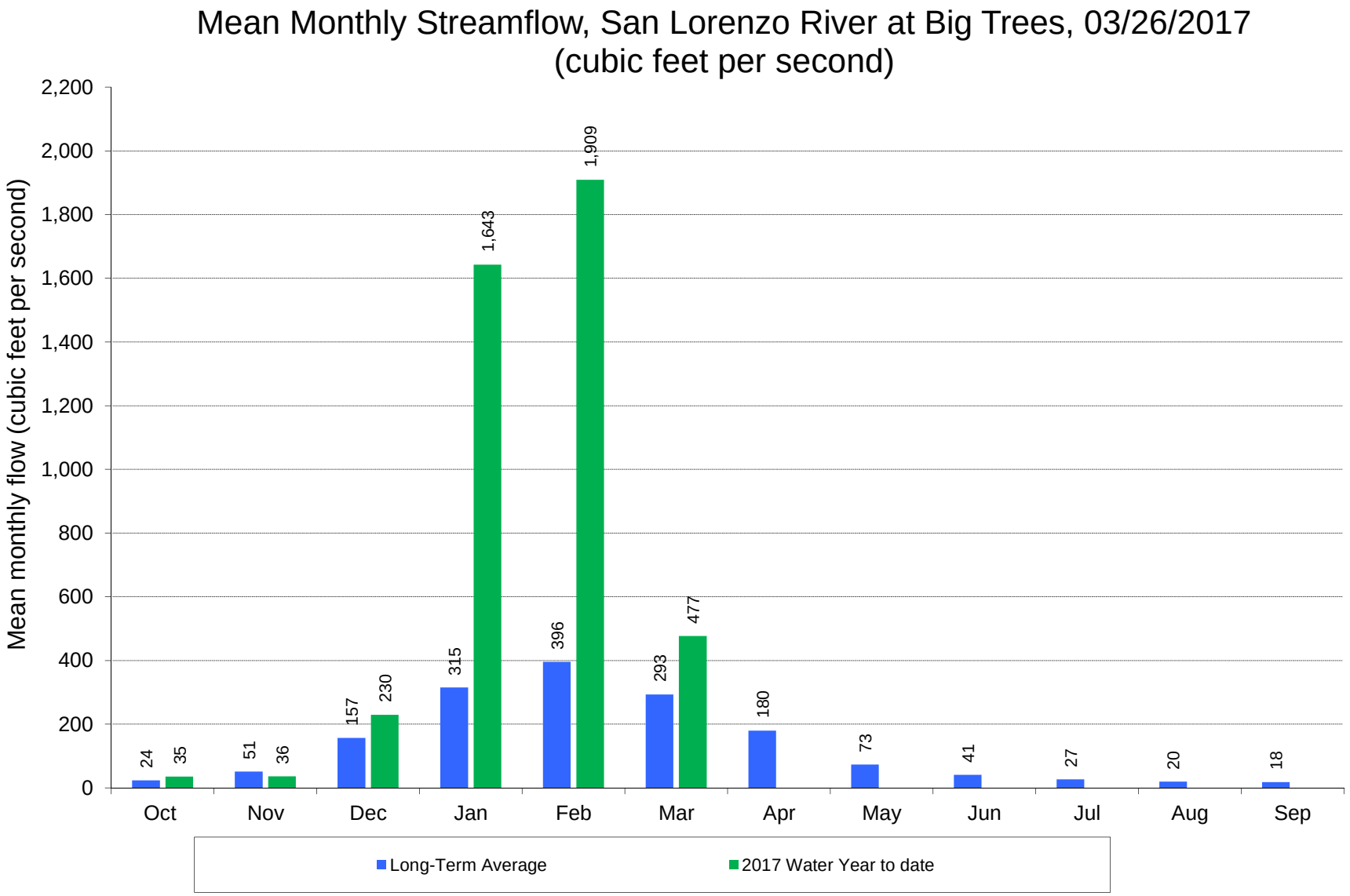

Cumulative Precipitation Santa Cruz , CA Water Year 2017
Inches
50
45
40
35
30
25
20
15
10
5
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Rainfall, season to date (03-26-2017): 48.72 inches
Percent of normal: 176%
Long-Term Average 1981-2010
WY 2017

Figure 2.


Mean Monthly Streamflow, San Lorenzo River at Big Trees, 03/26/2017
(cubic feet per second)
Mean monthly flow (cubic feet per second)
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
24
35
51
36
157
230
315
1,643
396
1,909
293
477
180
73
41
27
20
18
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Long-Term Average
2017 Water Year to date

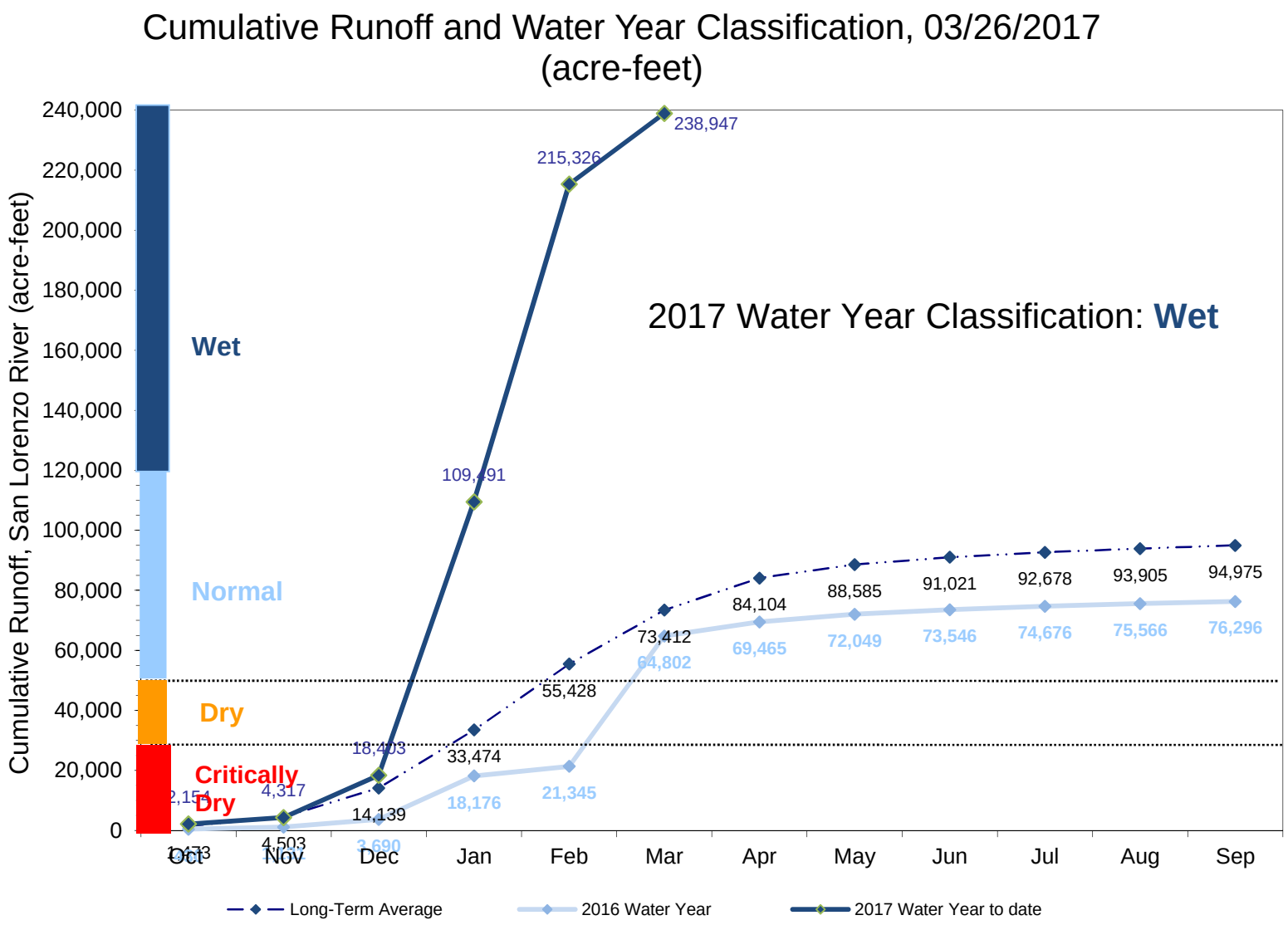

Cumulative Runoff and Water Year Classification, 03/26/2017
(acre-feet)
Cumulative Runoff, San Lorenzo River (acre-feet)
240,000
220,000
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Wet
Normal
Dry
Critically Dry
2017 Water Year Classification: Wet
238,947
215,326
109,491
18,403
14,139
4,503
4,317
1,473
2,154
55,428
33,474
21,345
18,176
3,690
73,412
64,802
84,104
69,465
88,585
72,049
91,021
73,546
92,678
74,676
93,905
75,566
94,975
76,296
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Long-Term Average
2016 Water Year
2017 Water Year to date

Figure 4.

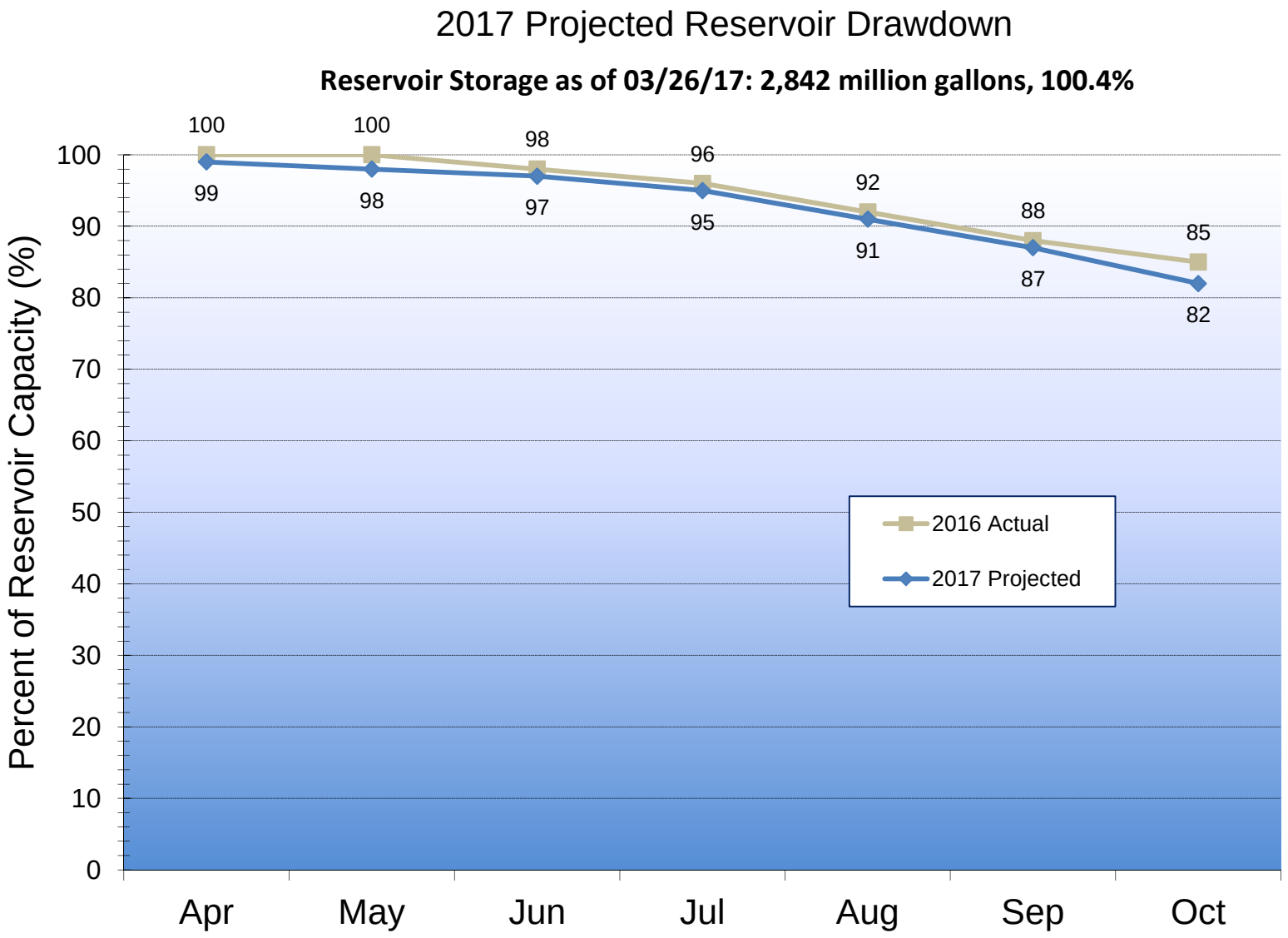

2017 Projected Reservoir Drawdown
Reservoir Storage as of 03/26/17: 2,842 million gallons, 100.4%
Percent of Reservoir Capacity (%)
100
90
80
70
60
50
40
30
20
10
0
Apr
May
Jun
Jul
Aug
Sep
Oct
100
100
98
96
92
88
85
99
98
97
95
91
87
82
2016 Actual
2017 Projected

Figure 5.

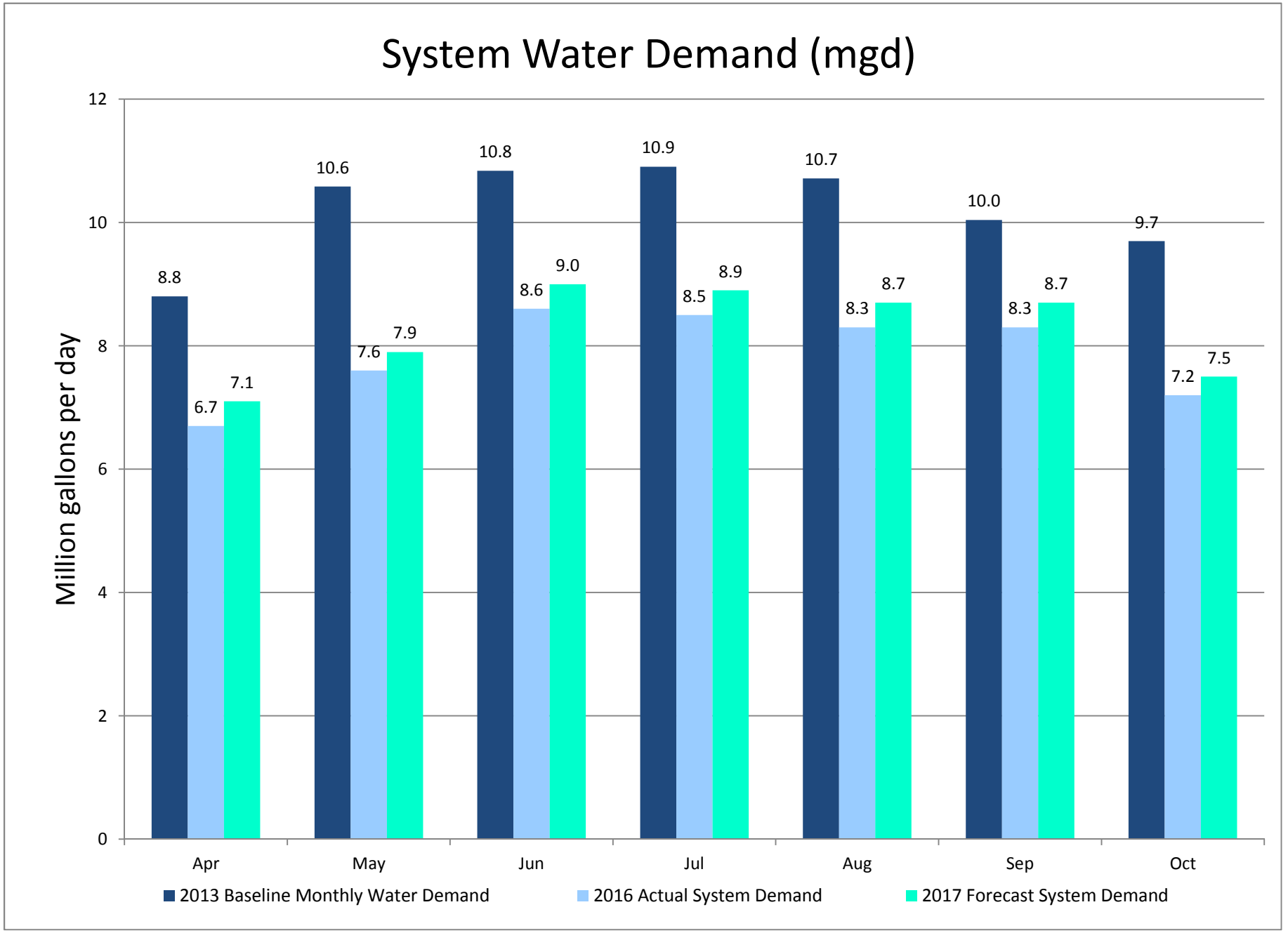

System Water Demand (mgd)
Million gallons per day
12
10
8
6
4
2
0
8.8
6.7
7.1
10.6
7.6
7.9
10.8
8.6
9.0
10.9
8.5
8.9
10.7
8.3
8.7
10.0
8.3
8.7
9.7
7.2
7.5
Apr
May
Jun
Jul
Aug
Sep
Oct
2013 Baseline Monthly Water Demand
2016 Actual System Demand
2017 Forecast System Demand

Table 1. 2017 Water Supply Forecast

SCWD Production Forecast (million gallons)	April	May	June	July	Aug	Sep	Oct	Total
	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
North Coast (gross production)	*	*	*	*	*	*	*	0
North Coast (net production)	55	54	54	40	36	32	31	302
San Lorenzo River	225	232	225	232	118	140	44	1,216
Live Oak Wells	0	0	12	25	25	25	25	112
Tait Wells	8	8	8	8	8	8	8	56
Total Production without Lake	280	286	291	297	179	197	100	1,630
Projected System Demand	212	246	270	277	269	260	233	1,767
Curtailed System Demand								0
Lake Production Needed to Meet Demand	**0**	**0**	**0**	**0**	**90**	**63**	**133**	**287**
Evaporation (feet)	0.2	0.3	0.3	0.4	0.4	0.3	0.2	2
Evaporation (mil gal)	9	13	13	18	18	13	9	93
Fish Release (mil gal)	20	20	20	20	20	20	20	140
Beginning Lake Volume	**2,830**	**2,801**	**2,768**	**2,735**	**2,697**	**2,569**	**2,473**	
End of Month Lake Volume	**2,801**	**2,768**	**2,735**	**2,697**	**2,569**	**2,473**	**2,311**	
End of Month Lake Elevation (ft above msl)	**576.8**	**576.2**	**575.7**	**575.1**	**572.9**	**571.0**	**567.9**	
Monthly change in elevation	-0.3	-0.6	-0.5	-0.6	-2.2	-1.9	-3.1	
Cumulative change in elevation	-0.3	576.2	575.7	575.1	572.9	571.0	567.9	
Percent of capacity (%)	99.0	97.8	96.6	95.3	90.8	87.4	81.7	

Date Forecast Finaled: March 27, 2017
North Coast Gross: No estimate
North Coast Net: North coast production equal to that produced in 2016, no water from Majors Creek this summer
San Lorenzo River forecast flow (see below) based on Wet Water Year classification, 75% exceedance
Releases at Tait: February 2017 Short Term Agreement, Hydrologic condition 1
Live Oak Wells: 170 MG/pumping season (May to Nov)
Level of Curtailment Imposed (May thru October)
Flows in San Lorenzo River are
Flows in Coast source(s) are
Projected unconstrained system demand based on 2016 actual plus 5 percent
Assumptions for Loch Lomond Reservoir Full April 1, unknown inflow thereafter
Newell Creek Fish Release - Normal release - 1.0 cfs

Projected San Lorenzo River Flow 2017 (cfs)	140	82	49	33	23	21	16
Additional Inflow below Felton	3.0	2.0	1.0	0.0	0.0	0.0	0.0
Flow at Tait St Diversion (cfs)	143	84	50	33	23	21	16.0
Continuous Release past Tait (cfs)	18.4	18.5	18.5	18.2	16.4	13.3	13.3
Release Buffer (cfs)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Intermittant Release (6cfs*12 hours/2days/week)			1.00	1.00	1.00	1.00	1.00
Available Flow (cfs)	124.1	65.0	31.0	14.3	6.1	7.2	2.2
Production (mg)	225	232	225	232	118	140	44
Bypass Release as % Total Flow @ Tait	13%	22%	37%	55%	71%	63%	83%
Actual San Lorenzo River Flow (cfs)							
Pleasure Point Monitoring Well Projected Groundwater Elevation (feet above MSL)							3.4
Estimated 2017 demand	212	246	270	277	269	260	233
Estimated daily demand mgd	7.1	7.9	9.0	8.9	8.7	8.7	7.5

WATER COMMISSION
INFORMATION REPORT

DATE: 3/30/2017

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Heidi Luckenbach, Deputy Director/Engineering Manager and Malissa Kaping, Management Analyst

SUBJECT: Water Department FY 2018-2020 CIP

RECOMMENDATION: That the Water Commission recommend that the City Council approves the FY 2018 – FY 2020 Capital Improvement Program budget.

DISCUSSION: On March 6, 2017, the Water Commission reviewed a draft of the FY 2018 – FY 2030 Capital Improvement Program (CIP) and provided feedback and made several recommendations for improvement. In addition to previously identified errors being corrected, the Commission's recommendations have been incorporated into the attached finalized long-term CIP.

Staff Corrections:

- The Advanced Metering Infrastructure (project #c701603) budget of $8,050,000 for FY 2021 – FY 2030 was omitted in error. The total project budget is $8,100,000.
- The Tube Settler Replacement (project #c701708) was moved to the Rehabilitation or Replacement Projects group from the Upgrades or Improvement Projects group.
- The Water Resources Building (project #c701702) budget was duplicated in FY 2018 in error. The total budget is $1,100,000 and is already appropriated in FY 2017.
- Reviewed all project titles and revised as needed to ensure titles reflected the scope of the work.

Commission Recommendations:

- Revise project titles for Laguna Dam and Majors Creek Dam to clarify that the work is actually phases within the North Coast System Rehabilitation plan.
- Provide additional information in the project descriptions for Beltz 10 and 11 Rehab & Development, Felton Diversion Replacement & Pump Station, Newell Creek Dam Inlet/Outlet Pipeline, San Lorenzo River Diversion & Tait Wells, and Aquifer Storage and Recovery.

- Revise project title for the Water Main Replacement project managed by the Engineering section to clarify that the budget is for design and construction costs of projects managed by Engineering staff and is not limited to engineering services.

In addition to the above, the Commission requested clarification in regards to:

The inflation factor used for financial planning:

- The inflation factor used in the 2016 Long Range Financial Plan was included in the draft Attachment A: CIP Project Overview for comparison purposes and was moved to the more appropriate Attachment C: Comparison with Long Range Financial Plan (LRFP).

The pay-go versus debt financing:

- The updated long-term CIP will require a revision to the sizing and timing of debt. Section 6.4 of the LRFP includes considerations for when to seek debt financing such as prioritizing grant funding and state sponsored low interest loan programs, minimizing interest costs by avoiding cash sitting idle in a bank account and watching for favorable market conditions. Staff is working with Public Financial Management to update the debt financing plan but has already confirmed that the attached long-term CIP is within the parameters established in the LRFP.

Identification of WSAS related projects:

- As staff understood it, the Commission asked that staff identify which projects in the CIP were reflective of the recommendations of the WSAC. It is difficult to do this on a project by project basis because some projects will be done whether the driver is WSAC or asset deterioration/end of life. An example is the current Concrete Tanks Project. The concrete tanks at the Graham Hill Water Treatment Plant need to be replaced due asset deterioration. However, during the design process, consideration is being given to the impact of treating more turbid water may have on the size, number and configuration of the tank(s). Treatment of more turbid water would be in response to water supply recommendation of the WSAC. As a result, projects are not yet identified as WSAC or Other.

The City Council is scheduled to review the 3-year CIP (FY 2018 – FY 2020) during the Council's April 25, 2017, meeting with the appropriation of the FY 2018 budget to be approved June 13, 2017.

FISCAL IMPACT: The total FY 2018 request for CIP projects is $23,660,000. The Council will approve an appropriation for the FY 2018 budget and will review the FY 2019 and FY 2020 budgets as informational. Staff is using a long-term CIP outlook for financial planning purposes.

PROPOSED MOTION: Motion to recommend that the City Council approves the FY 2018 – FY 2020 Capital Improvement Program budget.

ATTACHMENTS:
Attachment A: CIP Projects Overview
Attachment B: CIP Detail
Attachment C: Comparison with Long Range Financial Plan

Attachment A

CIP Projects Overview

Rehabilitation or Replacement Projects	Project #	Prior Years' Spend	FY2017 Amended Budget	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - 2030 Projected	Life of Project Total (Projected)	Project Duration	Current Status
Aerators at Loch Lomond	c701706	-	350,000	-	-	-	-	350,000	2017 - 2019	Feasibility
Bay Street Reservoir Reconstruction	c700313 & -027	24,361,493	1,697,711	200,000	-	-	-	26,259,205	2007 - 2017	Wrap-up/Phase 4
Beltz 10 & 11 Rehab & Development	c700026	64,243	145,000	300,000	-	-	-	509,243	2017-2018	Pre-Design
Coast Pump Station Line Repairs	c701707	-	50,000	500,000	-	-	-	550,000	2018	Feasibility
Felton Diversion Replac. & Pump Station	c701602	73,636	226,364	400,000	500,000	-	-	1,200,000	2016 - 2020	Pre-Design
Gravity Trunk Main Valve Replacement	c701504	258,019	381,981	-	-	-	-	640,000	2014 - 2017	Construction
Newell Creek Dam Inlet/Outlet Pipeline	c701606	300,951	1,879,793	2,975,000	475,000	32,380,000	12,220,000	50,230,744	2016 - 2021	Design
Newell Creek Pipeline Rehab/Replacement	c701701	-	710,000	1,500,000	6,500,000	5,000,000	6,500,000	20,210,000	2016 - 2020	Feasibility
N. Coast System Rehab- Laguna Diversion	TBD	-	-	250,000	500,000	1,000,000	-	1,750,000	2018 - 2021	Feasibility
N. Coast System Rehab- Majors Diversion	TBD	-	-	250,000	500,000	1,000,000	-	1,750,000	2018 - 2021	Feasibility
North Coast System Rehabilitation	c709835	7,698,905	6,487,854	1,500,000	-	-	13,000,000	28,686,759	2012 - 2017	Construction
Pressure Regulating Stations	c701703	-	310,000	60,000	60,000	60,000	-	490,000	2017 - 2020	Pre-Design
San Lorenzo River Diversion & Tait Wells	c709872	884,455	1,170,559	-	-	-	-	2,055,014	2002 - 2017	Project Wrap-up
Tube Settler Replacement	c701708	-	200,000	2,000,000	-	-	-	2,200,000	2018	Pre-Design
University Tank No. 4 Rehab/Replace	c701505	-	270,000	100,000	3,550,000	-	-	3,920,000	2014 - 2020	Feasibility
University Tank No. 5 Replacement	c701506	91,747	386,253	3,500,000	-	-	-	3,978,000	2014 - 2018	Design
Water Treatment Upgrades	c700025 & -1401	357,820	157,727	300,000	-	-	-	815,548	On-going	Feasibility
Wharf Water Main Replacement	c701613	158,188	35,313	-	-	-	-	193,501	2016	Completed
WTP Concrete Tanks Replacement	c701501	201,732	1,026,588	1,900,000	7,700,000	-	-	10,828,320	2014 - 2020	Design
WTP Filter Rehabilitation and Upgrades	c701303	5,379,485	657,815	-	-	-	-	6,037,300	2013 - 2017	Construction
WTP Flocculator Improvements	c701502	-	60,000	-	2,300,000	-	-	2,360,000	2018 - 2019	Feasibility
		39,830,675	**16,202,958**	**15,735,000**	**22,085,000**	**39,440,000**	**31,720,000**	**165,013,633**		

Upgrades or Improvement Projects		Prior Years' Spend	FY2017 Amended Budget	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - 2030 Projected	Life of Project Total (Projected)	Project Duration	Current Status
Advanced Metering Infrastructure (AMI)	c701603	-	50,000	-	-	-	8,050,000	8,100,000	TBD	Feasibility
Loch Lomond Facilities Improvements	c701301	49,676	235,324	100,000	-	-	-	385,000	2013 - 2020	Design/Construction
Photovoltaic System Evaluation/Construc	c701607	-	40,000	-	-	-	-	40,000	2016 - 2018	Design/Construction
Security Camera & Building Access Upgrades	c701704	-	95,000	150,000	200,000	200,000	-	645,000	2016 - 2019	Feasibility
Spoils and Stockpile Handling Facilities	c701508	5,100	344,900	-	-	-	-	350,000	2015 - 2017	Construction

Water Resources Building	c701702	-	1,100,000	-	-	-	-	1,100,000	2016 - 2017	Design
		54,776	**1,865,224**	**250,000**	**200,000**	**200,000**	**8,050,000**	**10,620,000**		

Water Supply Reliability & Studies		**Prior Years' Spend**	**FY2017 Amended Budget**	**FY2018 Request**	**FY2019 Projected**	**FY2020 Projected**	**FY2021 - 2030 Projected**	**Life of Project Total (Projected)**	**Project Duration**	**Current Status**
Aquifer Storage and Recovery	c701609 & -10	25,100	509,900	2,450,000	250,000	-	-	3,235,000	2016 - 2020	Feasibility
Recycled Water	c701611 & -12	53,639	521,361	-	-	-	-	575,000	2016 - TBD	Feasibility
Source Water Evaluation	c701608	33,079	566,921	250,000	250,000	-	-	1,100,000	2016 - 2020	Feasibility
Water Supply Reliability - WSAC	c701402 & -03	2,276,428	19,821	-	-	-	-	2,296,250	2014 - 2016	Completed
Water Supply Augmentation Strategy	c701705	-	78,352	300,000	-	1,200,000	103,200,000	104,778,352	2020 - 2025	Feasibility
		2,388,247	**1,696,355**	**3,000,000**	**500,000**	**1,200,000**	**103,200,000**	**111,984,602**		

Water Main Replacements		**Prior Years' Spend**	**FY2017 Amended Budget**	**FY2018 Request**	**FY2019 Projected**	**FY2020 Projected**	**FY2021 - 2030 Projected**	**Average Spend Per Year**	**Project Duration**	**Current Status**
Main Replacements - Engineering Section	c700002 +	6,041,084	2,061,011	4,050,000	2,250,000	2,250,000	20,250,000	1,317,932		
Main Replacements -Customer Initiated	c700004	301,259	50,000	50,000	50,000	50,000	500,000	35,759		
Main Replacements - Distribution Section	c701507	468,136	481,864	325,000	325,000	325,000	3,250,000	369,643	Annual - Ongoing Programs	
Main Replace.- Outside Agency Initiated	c700003	1,103,581	478,211	250,000	250,000	250,000	2,500,000	172,564		
		7,914,060	**3,071,086**	**4,675,000**	**2,875,000**	**2,875,000**	**26,500,000**	**1,895,898**		

	Prior Years' Spend	**FY2017 Amended Budget**	**FY2018 Request**	**FY2019 Projected**	**FY2020 Projected**	**FY2021 - 2030 Projected**	**Total Life of Projects (Projected)**
TOTAL	50,187,757	22,835,623	23,660,000	25,660,000	43,715,000	169,470,000	335,528,381

Attachment B: CIP Detail

Rehabilitation or Replacement Projects

Aerators at Loch Lomond (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2017 - 2019 **Project Status:** Feasibility **Project #:** c701706 **Project Manager:** Taylor Ronne & Terry McKinney

Project Description: Condition assessment followed by rehabilitation or replacement of the aerators for Loch Lomond Reservoir.

Work planned for FY2018 request: Develop model of Loch Lomond Reservoir, develop lake/reservoir management strategy, and rehab or replace new aeration system.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	-	350,000	-	350,000	-	-	-	-	350,000
Project Total	**-**	**-**	**350,000**	**-**	**350,000**	**-**	**-**	**-**	**-**	**350,000**

Bay Street Reservoir Reconstruction (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2007 -2017 **Project Status:** Wrap-up Phase 3 & Phase 4 **Project #:** c700313 & c700027 **Project Manager:** Doug Valby

Project Description: The Bay Street Reservoir reached the end of its useful life and was replaced with two 6 MG tanks. Construction of Tank 1 was completed in FY 2014; construction of Tank 2 was completed in FY 2016. Final project elements include site clean-up, security, and landscaping. A portion of the project is funded by System Development Charges (20% SDC-Fund 715).

Work planned for FY2018 request: Project had 4 phases: Phase 1 temporary tanks; Phase 2 Tank 1; Phase 3 Tank 2; Phase 4 site improvements, and landscaping and final site improvements. Work should be complete in Fall 2017.

	Prior Years' Spend [(1)]	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
c700313, Fund 711	19,442,010	1,388,666	(40,000)	46,918	1,301,748	200,000	-	-	-	20,990,676
c700027, Fund 715	4,919,483	359,045	(10,000)	11,729	337,316	-	-	-	-	5,268,529
Project Total	**24,361,493**	**1,747,711**	**(50,000)**	**58,647**	**1,639,064**	**200,000**	**-**	**-**	**-**	**26,259,205**

[(1)] Prior year spent includes phases 1, 2, and part of 3; includes all spent from FY2007 through FY2016.

Beltz 10 and 11 Rehab & Development (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2017-2018 **Project Status:** Pre-Design **Project #:** c700026 **Project Manager:** Isidro Rivera

Project Description: This project would convert an existing monitoring well to a production well, renamed Beltz 11, and will rehabilitate Beltz 10. Beltz 10 and 11 will pump from the Santa Margarita aquifer. The project would reduce pumping from the Purisima Formation which is impacted by pumping by the City and other users. Project includes feasibility study (that will include feasibility of wells to function as ASR wells), pump test, CEQA and construction efforts.

Work planned for FY2018 request: Project scheduled to be completed in FY2018.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	64,243	70,000	75,000	-	145,000	300,000	-	-	-	509,243
Project Total	**64,243**	**70,000**	**75,000**	**-**	**145,000**	**300,000**	**-**	**-**	**-**	**509,243**

Coast Pump Station Line Repairs (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2018 **Project Status:** Feasibility **Project #:** c701707 **Project Manager:** Kalen Dodd

Project Description: Condition assessment followed by rehabilitation or replacement of the Coast Pump Station discharge pipeline.

Work planned for FY2018 request: Currently evaluating feasibility of slip-lining existing pipeline. This would be followed by construction in 2018.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711			50,000		50,000	500,000	-	-	-	550,000
Project Total	**-**	**-**	**50,000**	**-**	**50,000**	**500,000**	**-**	**-**	**-**	**550,000**

Felton Diversion Replac. & Pump Station (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2016 - 2020 **Project Status:** Pre-Design **Project #:** c701602 **Project Manager:** Matt Zeman

Project Description: This project consists of evaluation of the existing dam and pump station with recommendations to rehabilitate or replace existing facilities. Alternate diversions to be considered will include horizontal collector wells (e.g., Ranney Collector) and other subsurface intake(s). This project will replace aging facilities and evaluate potentially more efficient ways to divert water from the San Lorenzo River at Felton. Additional funding for construction in FY2019.

Work planned for FY2018 request: Design and permitting for new rubber, inflatable dam.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	73,636	226,364	-	18,400	207,964	400,000	500,000	-	-	1,200,000
Project Total	**73,636**	**226,364**	**-**	**18,400**	**207,964**	**400,000**	**500,000**	**-**	**-**	**1,200,000**

Gravity Trunk Main Valve Replac. Phase 2 (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2014 -2017 **Project Status:** Construction **Project #:** c701504 **Project Manager:** Doug Valby

Project Description: The gravity trunk main is the primary water main delivering water from the Graham Hill Water Treatment Plant to the community and was installed in the 1960s. Phase 1 of this project was completed in FY16 and replaced failed isolation valves on and surrounding the 36 inch trunk transmission main and made improvements needed to inspect the condition of the pipeline. Phase 2 of this project includes inspection of the transmission main. The inspection may result in future projects to ensure pipeline integrity and reliable service. Future projects have not been funded.

Work planned for FY2018 request: Inspection, analysis, and prioritization of future work.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	258,019	381,981	-	325,500	56,481	-	-	-	-	640,000
Project Total	**258,019**	**381,981**	**-**	**325,500**	**56,481**	**-**	**-**	**-**	**-**	**640,000**

Newell Creek Dam Inlet/Outlet Pipeline (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2016 - 2021 **Project Status:** Design **Project #:** c701606 **Project Manager:** Leah Van Der Maaten, Isidro Rivera, & Taylor Ronne

Project Description: The Newell Creek Dam was installed in the 1960's. A pipeline runs through the base of the dam to deliver water to the reservoir from Felton Diversion and from the reservoir to the Graham Hill Water Treatment Plant. The pipeline rehabilitation includes inspection of the pipeline and its appurtenances which will result in rehabilitation or replacement of all or parts of the inlet/outlet. This project is being implemented with oversite by the Division of Safety of Dams and, having demonstrated compliance with existing seismic regulations, is strictly addressing rehabilitation and replacement issues.

Work planned for FY2018 request: The rehabilitation and replacement options will be designed to 10%; together with a risk and benefits analysis a project will be selected. In addition, CEQA and permitting will begin; Construction Manager/Owner's Representative will be hired.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	300,951	2,229,793	(350,000)	792,895	1,086,898	2,975,000	475,000	32,380,000	12,220,000	50,230,744
Project Total	**300,951**	**2,229,793**	**(350,000)**	**792,895**	**1,086,898**	**2,975,000**	**475,000**	**32,380,000**	**12,220,000**	**50,230,744**

Newell Creek Pipeline Rehab/Replacement (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2016 - 2020 **Project Status:** Feasibility **Project #:** c701701 **Project Manager:** Doug Valby

Project Description: This pipeline was constructed in the 1960s and extends from the toe of the Newell Creek Dam and the Graham Hill Water Treatment Plant. This project will conduct a condition assessment and program level environmental review followed by rehab and/or replacement of all or parts of the pipeline. This project is intended to ensure continued reliability of this water supply transmission main.

Work planned for FY2018 request: Hire Program Manager to provide depth/breadth to staff to do condition assessment, CEQA, permits, and design followed by prioritizing and implementing projects.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	710,000	-	-	710,000	1,500,000	6,500,000	5,000,000	6,500,000	20,210,000
Project Total	**-**	**710,000**	**-**	**-**	**710,000**	**1,500,000**	**6,500,000**	**5,000,000**	**6,500,000**	**20,210,000**

N. Coast System Rehab- Laguna Diversion (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2018 - 2021 **Project Status:** Feasibility **Project #:** c70xxxx **Project Manager:** Chris Berry & Sarah Easley Perez

Project Description: The City diverts water from Laguna and Majors Creeks. These sources are passively diverted into pipelines that carry the water to the North Coast Pipeline. The North Coast System Rehab project (c. 2002) included the evaluation of the diversions to determine if they are sound and if modifications could be made to improve the efficiency and reduce the potential environmental impacts associated with City operations. This project will update the findings of the 2002 analysis, and design and construct needed improvements.

Work planned for FY2018 request: Update the findings of the 2002 analysis conducted by Entrix and Wood Rogers.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	-	-	-	-	250,000	500,000	1,000,000	-	1,750,000
Project Total	**-**	**-**	**-**	**-**	**-**	**250,000**	**500,000**	**1,000,000**	**-**	**1,750,000**

N. Coast System Rehab- Majors Diversion (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2018 - 2021 **Project Status:** Feasibility **Project #:** c70xxxx **Project Manager:** Chris Berry & Sarah Easley Perez

Project Description: The City diverts water from Laguna and Majors Creeks. These sources are passively diverted into pipelines that carry the water to the North Coast Pipeline. The North Coast System Rehab project (c. 2002) included the evaluation of the diversions to determine if they are sound and if modifications could be made to improve the efficiency and reduce the potential environmental impacts associated with City operations. This project will update the findings of the 2002 analysis, and design and construct needed improvements.

Work planned for FY2018 request: Update the findings of the 2002 analysis conducted by Entrix and Wood Rogers.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	-	-	-	-	250,000	500,000	1,000,000	-	1,750,000
Project Total	**-**	**-**	**-**	**-**	**-**	**250,000**	**500,000**	**1,000,000**	**-**	**1,750,000**

North Coast System Rehabilitation (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2012- 2017 **Project Status:** Construction **Project #:** c709835 **Project Manager:** Kevin Crossley

Project Description: Springs and streams along the coast north of the City limits supply approximately 25% of the City's raw water. Some of the facilities related to these water supplies are reaching the end of their useful life. This program consists of multiple projects over the next 15 to 20 years to evaluate, rehabilitate, and replace portions of the existing infrastructure to ensure continued reliability. Engineering, environmental review, and permitting for the coast segment (Phase 3) began in FY 2013 and continues through FY 2017.

Work planned for FY2018 request: Phase 3 project will be completed in FY2018, remaining phases will be analyzed and prioritized along with Newell Creek Pipeline.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	7,698,905	6,637,854	(150,000)	5,563,621	924,233	1,500,000	-	-	13,000,000	28,686,759
Project Total	**7,698,905**	**6,637,854**	**(150,000)**	**5,563,621**	**924,233**	**1,500,000**	**-**	**-**	**13,000,000**	**28,686,759**

Pressure Regulating Stations (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2017 - 2020 **Project Status:** Pre-Design **Project #:** c701703 **Project Manager:** Doug Valby & Terry McKinney

Project Description: Evaluation and replacement of pressure regulating stations (PRS). A PRS maintains (sustains or reduces) downstream pressure in order to deliver sufficient water pressure. The water distribution system contains 15 PRS and they vary in age from 66 years old to 8 years old. This project will evaluate the condition of each PRS and prioritize rehabilitation or replacement.

Work planned for FY2018 request: Condition assessment of each station followed by prioritizing and replacement.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	60,000	250,000	6,648	303,352	60,000	60,000	60,000	-	490,000
Project Total	**-**	**60,000**	**250,000**	**6,648**	**303,352**	**60,000**	**60,000**	**60,000**	**-**	**490,000**

San Lorenzo River Diversion & Tait Wells (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2002 - 2017 **Project Status:** Project Wrap-up **Project #:** c709872 **Project Manager:** Ryan Ernst & Colin Smith

Project Description: Conduct a condition assessment of the existing diversion and wells including consideration of sanding issues, potential dam replacement, alternative diversions such as horizontal collector wells (e.g., Ranney Collector), and relocation of existing wells. Project will ensure reliable and efficient diversion of water from the San Lorenzo River at Tait St. Condition assessment followed by recommended intake modifications and/or new wells. Current project consists of replacing 2 wells, rehabilitating 1 existing well, and abandoning 1 well.

Work planned for FY2018 request: Well project wrapping up. Evaluation of additional wells (including Ranney-style collector wells) will be underway and project status will return to "feasibility."

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	884,455	1,170,559	-	1,053,403	117,156	-	-	-	-	2,055,014
Project Total	**884,455**	**1,170,559**	**-**	**1,053,403**	**117,156**	**-**	**-**	**-**	**-**	**2,055,014**

Tube Settler Replacement (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2018 **Project Status:** Pre-Design **Project #:** c701708 **Project Manager:** Isidro Rivera

Project Description: This is an outcome of prior work completed under "Water Treatment Upgrades," projects #c700025 and c701401, and involves **d**esign and replacement of tube settlers and related appurtenances.

Work planned for FY2018 request: Complete design drawings for replacement of tube settlers in sedimentation basins; construct.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	-	200,000	-	200,000	2,000,000	-	-	-	2,000,000
Project Total	**-**	**-**	**200,000**	**-**	**200,000**	**2,000,000**	**-**	**-**	**-**	**2,000,000**

University Tank No. 4 Rehab/Replace (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2014 - 2020 **Project Status:** Feasibility **Project #:** c701505 **Project Manager:** Kevin Crossley & Taylor Ronne

Project Description: Perform engineering analysis and condition assessment of the aging University 4 tank to ensure continued reliable service. Establish scope of work for recoating/rehabilitation project. Acquire construction easements from UCSC and perform environmental analysis to install temporary tank for use during construction. Create plans and specifications for recoating/rehabilitation project.

Work planned for FY2018 request: Predesign

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	270,000	-	-	270,000	100,000	3,550,000	-	-	3,920,000
Project Total	**-**	**270,000**	**-**	**-**	**270,000**	**100,000**	**3,550,000**	**-**	**-**	**3,920,000**

University Tank No. 5 Replacement (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2014 - 2018 **Project Status:** Design **Project #:** c701506 **Project Manager:** Kevin Crossley & Taylor Ronne

Project Description: Perform engineering analysis and condition assessment of the aging University 5 tank to ensure continued reliable service. Establish scope of work for recoating/rehabilitation project. Create plans and specifications for recoating/rehabilitation project. Install temporary tank and variable speed pumps for use during construction. Construct recoating/rehabilitation project.

Work planned for FY2018 request: Project being implemented in 3 phases: maintenance tank (4th Qtr FY2017), ~700LF main replacement (1st & 2nd Qtr FY2018), and U5 replacement (1st thru 4th Qtr 2018).

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	91,747	236,253	150,000	231,750	154,502	3,500,000	-	-	-	3,978,000
Project Total	**91,747**	**236,253**	**150,000**	**231,750**	**154,502**	**3,500,000**	**-**	**-**	**-**	**3,978,000**

Water Treatment Upgrades (Primary Driver: Rehabilitation or Replacement project)

Project Duration: On-going **Project Status:** Feasibility **Project #s:** c700025 & c701401 **Project Manager:** Isidro Rivera

Project Description: Upgrades to the Graham Hill Water Treatment Plant are necessary to meet new and planned regulatory requirements, and increase overall system reliability. This is a recurring project to prioritize needs and make smaller improvements.

Work planned for FY2018 request: Continued **e**valuation of various process improvements; once a project is defined, it becomes its own CIP.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
c700025, Fund 711	313,986	126,561	-	67,014	59,547	300,000	-	-	-	740,548
c701401, Fund 711	43,834	31,166	-	18,787	12,379	-	-	-	-	75,000
Project Total	**357,820**	**157,727**	**-**	**85,801**	**71,926**	**300,000**	**-**	**-**	**-**	**815,548**

Wharf Water Main Replacement (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2016 **Project Status:** Completed **Project #:** c701613 **Project Manager:** Doug Valby

Project Description: Emergency project to repair the Wharf Water Main that failed during strong swell in late January 2016. This project was completed in Fall 2016 and the City did receive an insurance reimbursement.

Work planned for FY2018 request: This project is in the process of closing.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	158,188	35,313	-	-	35,313	-	-	-	-	193,501
Project Total	**158,188**	**35,313**	**-**	**-**	**35,313**	**-**	**-**	**-**	**-**	**193,501**

WTP Concrete Tanks Replacement (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2014 - 2020 **Project Status:** Design **Project #:** c701501, c701503, & c701605 **Project Manager:** Kalen Dodd

Project Description: As part of an overall plan to ensure compliance with changing water quality regulations, improvements are needed at the Graham Hill Water Treatment Plant. This project will evaluate the condition of four concrete tanks located at the site (as well as an off-site concrete tank), make improvement recommendation, and construction.

Work planned for FY2018 request: The project is in design March 2017 - February 2018. Construction anticipated for April 2018 - September 2019.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
c701501, Fund 711	201,732	761,588	-	47,013	714,575	1,900,000	7,700,000	-	-	10,563,320
c701503, Fund 711	-	40,000	-	-	40,000	-	-	-	-	40,000
c701605, Fund 711	-	750,000	(525,000)	-	225,000	-	-	-	-	225,000
Project Total	**201,732**	**1,551,588**	**(525,000)**	**47,013**	**979,575**	**1,900,000**	**7,700,000**	**-**	**-**	**10,828,320**

WTP Filter Rehabilitation and Upgrades (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2013 - 2017 **Project Status:** Construction/Wrap-up **Project #:** c701303 **Project Manager:** Isidro Rivera & Matt Zeman

Project Description: As part of an overall plan to ensure compliance with changing water quality regulations, improvements are needed at the Graham Hill Water Treatment Plant. This project will rehabilitate and improve the filter performance. Project will be complete in 2017.

Work planned for FY2018 request: Project is wrapping up.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	5,379,485	657,815	-	589,295	68,520	-	-	-	-	6,037,300
Project Total	**5,379,485**	**657,815**	**-**	**589,295**	**68,520**	**-**	**-**	**-**	**-**	**6,037,300**

WTP Flocculator Improvements (Primary Driver: Rehabilitation or Replacement project)

Project Duration: 2018 - 2019 **Project Status:** Feasibility **Project #:** c701502 **Project Manager:** Kevin Crossley & Isidro Rivera

Project Description: As part of an overall plan to ensure compliance with changing water quality regulations, improvements are needed at the Graham Hill Water Treatment Plant. This project will replace aging paddle wheel flocculators and improve sedimentation processes. Project includes seismic evaluation as well as consideration for covering all basins.

Work planned for FY2018 request: Project relying on rollver funds for pre-design in 2017.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	60,000	-	-	60,000	-	2,300,000	-	-	2,360,000
Project Total	**-**	**60,000**	**-**	**-**	**60,000**	**-**	**2,300,000**	**-**	**-**	**2,360,000**

Upgrades or Improvement Projects

Advanced Metering Infrastructure (AMI) (Primary Driver: Upgrades or Improvement project)

Project Duration: TBD **Project Status:** Feasibility **Project #:** c701603 **Project Manager:** Kyle Petersen

Project Description: Evaluate the use of AMI as replacement to the current AMR metering (Automatic Meter Reading). AMR provides 1-way communication between a meter and the City and AMI provides two-way communication between a meter and the City as well as between a meter and the customer. Benefits include early leak detection, customer conservation affect, and workflow management. Implementation to occur in future years.

Work planned for FY2018 request: Completion of evaluation/business case for AMI.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	50,000	-	5,600	44,400	-	-	-	8,050,000	8,100,000
Project Total	**-**	**50,000**	**-**	**5,600**	**44,400**	**-**	**-**	**-**	**8,050,000**	**8,100,000**

Loch Lomond Facilities Improvements (Primary Driver: Upgrades or Improvement Project)

Project Duration: 2013 - 2020 **Project Status:** Design/Construction **Project #:** c701301 **Project Manager:** Matt Zeman & Gar Eidam

Project Description: Complete facilities assessment and improvement program at Loch Lomond. A Use study was completed in FY 2013 which resulted in a number of planned projects to enhance the recreation area usability for its visitors. Several ADA and other recreational improvements are being pursued over the next 5 years.

Work planned for FY2018 request: ADA improvements of Loch View picnic area.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	49,676	235,324	-	24,700	210,624	100,000	-	-	-	385,000
Project Total	**49,676**	**235,324**	**-**	**24,700**	**210,624**	**100,000**	**-**	**-**	**-**	**385,000**

Photovoltaic System Evaluation/Construc (Primary Driver: Upgrades or Improvement project)

Project Duration: 2016 - 2018 **Project Status:** Design/Construction **Project #:** c701607 **Project Manager:** Heidi Luckenbach & Matt Zeman

Project Description: Ongoing project to evaluate, design and construct PV systems on various water department facilities. The current project is at the Bay Street Tank Site. Once installed, each project will add to the departments and City's green energy portfolio and work towards meeting and exceeding our climate action goals.

Work planned for FY2018 request: The department has submitted an interconnection agreement to PG&E and is striving to complete the project at Bay St Reservoir by July 1st to benefit from current rate structure.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	40,000	-		40,000	-	-	-	-	40,000
Project Total	**-**	**40,000**	**-**	**-**	**40,000**	**-**	**-**	**-**	**-**	**40,000**

Security Camera & Building Access Upgrade (Primary Driver: Upgrades or Improvement project)

Project Duration: 2016 - 2019 **Project Status:** Feasibility **Project #:** c701704 **Project Manager:** Doug Valby, Carlos Silva, & Terry McKinney

Project Description: Evaluation and implementation of security camera and building access upgrades at various Water facilities. Current security equipment is proprietary and could be improved. A transition to a new system will require camera replacement and additional video storage equipment.

Work planned for FY2018 request: Identify priority sites and begin implementation.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process [2]	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	95,000	-		95,000	150,000	200,000	200,000	-	645,000
Project Total	**-**	**95,000**	**-**	**-**	**95,000**	**150,000**	**200,000**	**200,000**	**-**	**645,000**

[2] The cost of this project is actually ~$500K; priority of sites still needed.

Spoils and Stockpile Handling Facilities (Primary Driver: Upgrades or Improvement project)

Project Duration: 2015 - 2017 **Project Status:** Construction **Project #:** c701508 **Project Manager:** Taylor Ronne

Project Description: Suitable storage for materials (sand, base rock, cold mix and spoils) is needed at the City's Corporation yard. Improvements will allow for better handling of wet spoils generated by the vactor truck, as well as prevent sediment laden runoff from entering the storm water drainage system. (Project title modified from Bunker Roof Project.)

Work planned for FY2018 request: Project should be complete by July 1, 2017.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	5,100	344,900	-	196,768	148,132	-	-	-	-	350,000
Project Total	**5,100**	**344,900**	**-**	**196,768**	**148,132**	**-**	**-**	**-**	**-**	**350,000**

Water Resources Building (Primary Driver: Upgrades or Improvement project)

Project Duration: 2016 - 2017 **Project Status:** Design **Project #:** c701702 **Project Manager:** Kalen Dodd

Project Description: The Watershed Resources Division is currently housed in temporary trailers. This project consists of a needs assessment, design, and construction. The needs assessment portion of the project has been completed; FY 2016/17 will focus on site selection and design; FY 2017/18 will be construction.

Work planned for FY2018 request: Final design will be completed and construction started.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	1,100,000	-	200,020	899,980	-	-	-	-	1,100,000
Project Total	**-**	**1,100,000**	**-**	**200,020**	**899,980**	**-**	**-**	**-**	**-**	**1,100,000**

Water Supply Reliability & Studies Projects

Aquifer Storage and Recovery (Primary Driver: Water Supply Reliability & Studies)

Project Duration: 2016 - 2020 **Project Status:** Feasibility **Project #:** c701609 & c701610 **Project Manager:** Isidro Rivera

Project Description: Evaluate the feasibility of Aquifer Storage and Recovery as per the recommendations of the Water Supply Advisory Committee. Funds in FY 2016 and 2017 will be used for Phase 1 of the proposed study. Phase 2 will include pilot work and be funded in FY 2018. Project would potentially provide additional potable water to City and other agency customers, addressing part or all of water supply deficiencies.

Work planned for FY2018 request: Completion of Phase 1: groundwater modeling, identification of pilot sites; begin Phase 2.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
c701609, Fund 711	17,570	356,930	-	304,689	52,241	1,715,000	175,000	-	-	2,264,500
c701610, Fund 715	7,530	152,970	-	130,581	22,389	735,000	75,000	-	-	970,500
Project Total	**25,100**	**509,900**	**-**	**435,270**	**74,630**	**2,450,000**	**250,000**	**-**	**-**	**3,235,000**

Recycled Water (Primary Driver: Water Supply Reliability & Studies)

Project Duration: 2016 - TBD **Project Status:** Feasibility **Project #:** c701611 & c701612 **Project Manager:** Heidi Luckenbach & David Kehn

Project Description: Evaluate the feasibility of using advanced treated wastewater for beneficial uses as per the recommendations of the Water Supply Advisory Committee. The project will be collaboration amongst the Water and Public Works Departments. The project would potentially provide additional water to City and other agency customers, addressing all or part of water supply deficiencies.

Work planned for FY2018 request: The Recycled Water Feasibility Planning Study will wrap-up by Winter 2017; includes a financial analysis by Raftelis Financial Consultants of feasible projects.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
c701611, Fund 711	36,234	313,766	52,500	337,480	28,786	-	-	-	-	402,500
c701612, Fund 715	17,405	132,595	22,500	158,787	(3,692)	-	-	-	-	172,500
Project Total	**53,639**	**446,361**	**75,000**	**496,267**	**25,093**	**-**	**-**	**-**	**-**	**575,000**

Source Water Evaluation (Primary Driver: Water Supply Reliability & Studies)

Project Duration: 2016 - 2020 **Project Status:** Feasibility **Project #:** c701608 **Project Manager:** Kevin Crossley, Sarah Easley Perez, & Terry McKinney

Project Description: Evaluate source water quality, operational and infrastructure alternatives to maximize use of surface water. This project was prompted in part by the recommendations of the Water Supply Advisory Committee, accepted by Council in Nov 2015, to evaluate use of additional winter flows in the San Lorenzo River for various purposes to solve the regional water supply issues.

Work planned for FY2018 request: The project currently consists of a number of studies including source water quality sampling, jar testing, and in-plant hydraulic modeling that will lead to near, mid, and long term projects to improve water quality and reliability.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	33,079	566,921	-	149,229	417,692	250,000	250,000	-	-	1,100,000
Project Total	**33,079**	**566,921**	**-**	**149,229**	**417,692**	**250,000**	**250,000**	**-**	**-**	**1,100,000**

Water Supply Reliability (Primary Driver: Water Supply Reliability & Studies)

Project Duration: 2014 - 2016 **Project Status:** Completed **Project #:** c701402 & c701403 **Project Manager:** Heidi Luckenbach

Project Description: This project was created to support the Water Supply Advisory Committee (WSAC) to explore the City of Santa Cruz's water situation and develop potential supply options. It included the exploration of the various elements that impact supply such as the Habitat Conservation Plan process, demand management, and potential water supply alternatives such as water exchange and beneficial uses of recycled water. This project is complete.

Work planned for FY2018 request: A separate CIP project has been created for the implementation of the WSAC recommendations.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
c701402, Fund 711	1,606,048	124,334	(110,459)	13,874	0	-	-	-	-	1,619,923
c701403, Fund 715	670,380	48,840	(42,893)	5,946	0	-	-	-	-	676,327
Project Total	**2,276,428**	**173,174**	**(153,352)**	**19,820**	**-**	**-**	**-**	**-**	**-**	**2,296,250**

Water Supply Augmentation Strategy Implementation (Primary Driver: Water Supply Reliability & Studies)

Project Duration: 2020 - 2025 **Project Status:** Feasibility **Project #:** c701705 **Project Manager:** Heidi Luckenbach

Project Description: This CIP replaces the Water Supply Advisory Committee (WSAC) to capture various studies and analyses to further the WSAC recommendations. The work conducted in other CIP projects relate to this one; e.g., ASR, Recycled Water.

Work planned for FY2018 request: Complete analysis of Desal (Part of Element 3), do comparative analysis of Desal and Recycled Water alternatives as per WSAC recommendations.

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	-	-	78,352	22,088	56,264	300,000	-	1,200,000	103,200,000	104,778,352
Project Total	**-**	**-**	**78,352**	**22,088**	**56,264**	**300,000**	**-**	**1,200,000**	**103,200,000**	**104,778,352**

Water Main Replacement Projects

Main Replacements -Customer Initiated (Primary Driver: Water Main Replacements)

Project Duration & Status: On-going annual work **Project #:** c700004 **Project Manager:** Doug Valby

Project Description: Recurring program similar to the other Main Replacement Projects; however, these projects are initiated on an as-needed basis to accommodate customer-requested service connections to undersized or inadequate mains. Funds, to the extent of the appropriation, are disbursed to customers on a first-come, first-served basis. This project is funded by System Development Charges (100% SDC – Fund 715).

Work planned for FY2018 request: Actual projects are still to be determined.

	Prior Years' Spend [3]	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 715	301,259	50,000		-	50,000	50,000	50,000	50,000	500,000	1,001,259
Project Total	**301,259**	**50,000**		**-**	**50,000**	**50,000**	**50,000**	**50,000**	**500,000**	**1,001,259**

[3] Prior year spent includes work from FY2000 through FY2016.

Main Replacements - Distribution Section (Primary Driver: Water Main Replacements)

Project Duration & Status: On-going annual work **Project #:** c701507 **Project Manager:** Miguel Valencia & Doug Valby

Project Description: Recurring program to replace deteriorated or undersized water mains, as identified and prioritized by the Department and implemented by the Distribution Section. Projects are typically based on leak history, but also address water quality and fire flow issues.

Work planned for FY2018 request: Actual projects are still to be determined.

	Prior Years' Spend [4]	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	468,136	481,864		182,310	299,554	325,000	325,000	325,000	3,250,000	5,175,000
Project Total	**468,136**	**481,864**		**182,310**	**299,554**	**325,000**	**325,000**	**325,000**	**3,250,000**	**5,175,000**

[4] Prior year spent includes all expenses from FY2015 through FY2016.

Main Replacements - Engineering Section (Primary Driver: Water Main Replacements)

Project Duration & Status: On-going annual work **Project #s:** c700002, c709833, & c700017 **Project Manager:** Doug Valby

Project Description: Recurring program to replace deteriorated or undersized mains as identified and prioritized by the Department. Priorities are based on the need to maintain water system reliability, deliver adequate fire flows, improve circulation and water quality, and reduce maintenance costs. These projects are typically large in terms of linear feet and are installed by contractors according to bid plans and specifications.

Work planned for FY2018 request: Funding in FY17 and FY18 includes replacement of water main in River St (from Highway 1 to Water), and Potrero St (from River to Mora). The River St and Potrero St work is scheduled for April - Dec 2017 .

	Prior Years' Spend [5]	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
c700002, Fund 711	3,182,963	1,140,164		1,078,830	61,334	4,050,000	2,250,000	2,250,000	20,250,000	33,123,128
c709833, Fund 711	2,348,760	736,677		17,685	718,992	-	-	-	-	3,085,437
c700017, Fund 715	509,361	184,169		-	184,169	-	-	-	-	693,531
Project Total	**6,041,084**	**2,061,011**		**1,096,515**	**964,495**	**4,050,000**	**2,250,000**	**2,250,000**	**20,250,000**	**36,902,095**

[5] Prior year spent for project c700002 and c700017 includes work from FY2000 through FY2016. The prior year spent for project c709833 includes work from FY1998 through FY2016.

Main Replacements- Outside Agency Initiated (Primary Driver: Water Main Replacements)

Project Duration & Status: On-going annual work **Project #:** c700003 **Project Manager:** Doug Valby

Project Description: Water main, service line, valve, or water meter relocation necessitated by County or other Agency road improvement, storm drain improvement projects, and/or other projects that conflict with existing water infrastructure.

Work planned for FY2018 request: Funding has been allocated to coincide with the Murray Street Bridge and Riverside Drive projects; both City Public Works projects.

	Prior Years' Spend [6]	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Project (Projected)
Fund 711	1,103,581	478,211		27,778	450,433	250,000	250,000	250,000	2,500,000	4,831,792
Project Total	**1,103,581**	**478,211**		**27,778**	**450,433**	**250,000**	**250,000**	**250,000**	**2,500,000**	**4,831,792**

[6] Prior year spent includes work from FY2000 through FY2016.

Total

	Prior Years' Spend	FY2017 Amd Budget	FY2017 Budget Adjustment in process	FY2017 Enc & Spent (Thru 1/31/17)	FY2017 Balance	FY2018 Request	FY2019 Projected	FY2020 Projected	FY2021 - FY2030 Projected	Total Life of Projects (Projected)
Fund 711	43,762,338	21,908,005	30,393	11,322,296	10,616,102	22,875,000	25,535,000	43,665,000	168,970,000	326,745,736
Fund 715	6,425,419	927,619	(30,393)	307,044	590,182	785,000	125,000	50,000	500,000	8,782,645
Total	**50,187,757**	**22,835,624**	**(0)**	**11,629,340**	**11,206,284**	**23,660,000**	**25,660,000**	**43,715,000**	**169,470,000**	**335,528,381**

Attachment C

Comparison with Long Range Financial Plan (LRFP) for FY2018

Rehabilitation or Replacement Projects	Project #	FY2017 Amended Budget	FY2018 Plan from LRFP	FY2018 Revised Request	Variance between LRFP and FY2018
Aerators at Loch Lomond	c701706	350,000	-	-	-
Bay Street Reservoir Reconstruction	c700313 & -027	1,697,711	-	200,000	200,000
Beltz 10 & 11 Rehab & Development	c700026	145,000	300,000	300,000	-
Coast Pump Station Line Repairs	c701707	50,000	-	500,000	500,000
Felton Diversion Replac. & Pump Station	c701602	226,364	1,500,000	400,000	(1,100,000)
Gravity Trunk Main Valve Replacement	c701504	381,981	-	-	-
Newell Creek Dam Inlet/Outlet Pipeline	c701606	1,879,793	2,000,000	2,975,000	975,000
Newell Creek Pipeline Rehab/Replacement	c701701	710,000	1,000,000	1,500,000	500,000
N. Coast System Rehab- Laguna Diversion	TBD	-	-	250,000	250,000
N. Coast System Rehab- Majors Diversion	TBD	-	-	250,000	250,000
North Coast System Rehabilitation	c709835	6,487,854	-	1,500,000	1,500,000
Pressure Regulating Stations	c701703	310,000	60,000	60,000	-
San Lorenzo River Diversion & Tait Wells	c709872	1,170,559	-	-	-
Tube Settler Replacement	c701708	200,000	-	2,000,000	2,000,000
University Tank No. 4 Rehab/Replace	c701505	270,000	1,300,000	100,000	(1,200,000)
University Tank No. 5 Replacement	c701506	386,253	1,675,000	3,500,000	1,825,000
Water Treatment Upgrades	c700025 & -1401	157,727	-	300,000	300,000
Wharf Water Main Replacement	c701613	35,313	-	-	-
WTP Concrete Tanks Replacement	c701501	1,026,588	3,000,000	1,900,000	(1,100,000)
WTP Filter Rehabilitation and Upgrades	c701303	657,815	-	-	-
WTP Flocculator Improvements	c701502	60,000	-	-	-
		16,202,958	**10,835,000**	**15,735,000**	**4,900,000**

Upgrades or Improvement Projects		FY2017 Amended Budget	FY2018 Plan from LRFP	FY2018 Revised Request	Variance between LRFP and FY2018
Advanced Metering Infrastructure (AMI)	c701603	50,000	-	-	-
Loch Lomond Facilities Improvements	c701301	235,324	-	100,000	100,000
Photovoltaic System Evaluation/Construc	c701607	40,000	500,000	-	(500,000)
Security Camera & Building Access Upgrades	c701704	95,000	-	150,000	150,000
Spoils and Stockpile Handling Facilities	c701508	344,900	-	-	-
Water Resources Building	c701702	1,100,000	-	-	-
		1,865,224	**500,000**	**250,000**	**(250,000)**

Water Supply Reliability & Studies		FY2017 Amended Budget	FY2018 Plan from LRFP	FY2018 Revised Request	Variance between LRFP and FY2018
Aquifer Storage and Recovery	c701609 & -10	509,900	1,075,000	2,450,000	1,375,000
Recycled Water	c701611 & -12	521,361	-	-	-
Source Water Evaluation	c701608	566,921	500,000	250,000	(250,000)
Water Supply Reliability - WSAC	c701402 & -03	19,821	-	-	-
Water Supply Augmentation Strategy	c701705	78,352	-	300,000	300,000
		1,696,355	**1,575,000**	**3,000,000**	**1,425,000**

Water Main Replacements		FY2017 Amended Budget	FY2018 Plan from LRFP	FY2018 Revised Request	Variance between LRFP and FY2018
Main Replacements - Engineering Section	c700002 +	2,061,011	1,440,000	4,050,000	2,610,000
Main Replacements -Customer Initiated	c700004	50,000	50,000	50,000	-
Main Replacements - Distribution Section	c701507	481,864	325,000	325,000	-
Main Replace.- Outside Agency Initiated	c700003	478,211	250,000	250,000	-
		3,071,086	**2,065,000**	**4,675,000**	**2,610,000**

	FY2017 Amended Budget	FY2018 Plan from LRFP	FY2018 Revised Request	Variance between LRFP and FY2018
TOTAL	**22,835,623**	**14,975,000**	**23,660,000**	**8,685,000**

* Includes approved FY17 budget adjustments not yet posted

Comparison with Long Range Financial Plan (LRFP) for life of projects

FY2018 Budget							
	Prior Years' Spend	**FY2017 Amended Budget**	**FY2018 Request**	**FY2019 Projected**	**FY2020 Projected**	**FY2021 - 2030 Projected**	**Total Life of Projects (Projected)**
TOTAL	50,187,757	22,835,623	23,660,000	25,660,000	43,715,000	169,470,000	335,528,381
Comparison Inflation *	100.00%	103.00%	106.09%	111.39%	116.96%	123% to 191%	106% to 191%
TOTAL w/ Inflation	50,187,757	23,520,692	25,100,894	28,582,674	51,129,064	241,279,065	419,800,146

LRFP							
TOTAL	50,187,757	12,095,000	14,975,000	32,115,000	32,125,000	163,900,000	305,397,757
Comparison Inflation	100.00%	103.00%	106.09%	111.39%	116.96%	123% to 191%	106% to 191%
TOTAL w/ Inflation	50,187,757	12,457,850	15,886,978	35,774,344	37,574,757	236,176,336	388,058,022

* LRFP is based on 2016 dollars with cumulative inflation. Inflation factor will be adjusted every 5-years when the LRFP is updated.

WATER COMMISSION
INFORMATION REPORT

DATE: 3/30/2017

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Eileen Cross, Community Relations Specialist

SUBJECT: Water Department Strategic Framework for Communications, 2017-2019

RECOMMENDATION: That the Water Commission accept the Water Department Strategic Framework for Communications on Water Supply Advisory Committee Recommendations.

BACKGROUND: At its March 6, 2017, meeting, the Water Commission reviewed the Strategic Framework for Communications and provided feedback and direction to staff. The revised Framework incorporates the suggestions made by Commissioners, including the addition of a public-opinion poll. The poll will be conducted in FY 2018 and will serve as a baseline for public awareness of the city's water supply problem and the recommendations made by the WSAC to address it.

The desired outcome from the proposed communications framework is for an educated and informed public to understand the city's water supply gap and to feel confident that the WSAC's recommendations have been diligently followed and are appropriately reflected in the Water Commission's recommendations to the City Council.

FISCAL IMPACT: Budget includes support for graphics, advertising, mailers, public events and a public opinion poll.

PROPOSED MOTION: Motion to accept the Water Department Strategic Framework for Communications on Water Supply Advisory Committee Recommendations

ATTACHMENTS: Water Department Strategic Framework for Communications, 2017-2019.

WATER DEPARTMENT COMMUNITY RELATIONS
Strategic Framework for Communications, 2017-2019

OUTCOME: Public understanding of, and support for, implementation of City Council-accepted water supply augmentation strategies.

GOALS AND OBJECTIVES

1. Assess and build community awareness of the need to augment our water supply.
2. Maintain and build support for the augmentation strategies recommended by the Water Supply Advisory Committee and accepted by the City Council.
3. Build community awareness of water supply sources, water reliability, water treatment processes, and water quality.
4. Enhance public trust and confidence in Water Department practices.
5. Raise community awareness of the value of watershed management, vis-à-vis water for fish.
6. Provide regular progress reports on water supply augmentation strategies through a variety of channels.
7. Provide in-field opportunities to learn about water supply augmentation strategies.
8. Co-host public engagement opportunities with the Water Commission to elevate public awareness of the Commission.

TACTICS, YEAR 1
Monthly Water Commission press releases
Monthly WSAC email newsletters
Annual WSAC progress report
Joint meeting of WC & CC for WSAC progress report, Mar 14 -Press release/media advisory -Announcement on WSAC progress report; monthly WSAC email newsletter -Newspaper ad -City-wide commission invitation -RM on KSCO morning show, 3/14
State of the San Lorenzo River Symposium, March 4 -Theme: flow
Chamber of Commerce Bus Fair, March 15 -Conservation tabling
World Water Day, March 22. Theme: wastewater -Public tour of SCWWTP, as it relates to the WSAC recommendation for recycled water
Fix-A-Leak Week, March 20-22 -Newspaper ads -Tabling at local hardware stores
Public tour of GHWTP, April 18
Earth Day, April 22 -Tabling with Conservation Coalition
Public tour, Loch Lomond, April 29 -Theme: Native plants and tree identification
Spring issue of the SCMU Review, May -Theme: Your Water Bill at Work -- CIP

New City website launches, May
ASR public tour at Beltz 12, May 17
Great American Secchi Dip-In, Loch Lomond, July 29
Fall 2017 public tour line-up: TBD
Public tour, Loch Lomond, October 28 -Theme: fall birding at the lake
Conduct baseline polling for awareness of supply gap and WSAC recommendations
Fall issue of the SCMU Review -Theme: TBD
YEAR 2, 2018
Monthly Water Commission press releases
Monthly WSAC email newsletters
Monthly WD updates to elected officials and community leaders
Annual WSAC progress report to community
Public tour, Loch Lomond, Jan 28 -Theme: Mushrooms (title TBD)
Fix-A-Leak Week, March
Spring issue of the SCMU Review -Theme: TBD
Spring 2018 public tour line-up: TBD
Fall issue of the SCMU Review -Theme: TBD
YEAR 3, 2019
Monthly Water Commission press releases
Monthly WSAC email newsletters
Monthly WD updates to elected officials and community leaders
Annual WSAC progress report to community
Fix-A-Leak Week, March
Spring issue of the SCMU Review -Theme: TBD
Spring 2019 public tour line-up: TBD
Fall issue of the SCMU Review -Theme: TBD

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WATER COMMISSION
INFORMATION REPORT

DATE: 3/28/17

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: Updated Water Commission meeting schedule 2017

RECOMMENDATION: That the Water Commission accept the updated Water Commission meeting schedule for 2017.

January 2017
(01-09-17) SC Police Community Room

February 2017
(02-06-17)

March 2017
(03-06-17)

April 2017
(04-03-17)

May 2017
(05-01-17)

June 2017
(06-05-17)

July
Cancelled

August 2017
(08-07-17)

September 2017
(09-11-2017) Location to be determined

October 2017
(10-02-17)

November 2017
(11-06-17)

December 2017
(12-04-17)

FISCAL IMPACT: None

PROPOSED MOTION: Motion to accept the updated Water Commission meeting schedule for 2017.

ATTACHEMENTS: None

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WATER COMMISSION
INFORMATION REPORT

DATE: 3/30/2017

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Malissa Kaping, Management Analyst

SUBJECT: Revision of Miscellaneous Fees

RECOMMENDATION: That the Water Commission recommend that the City Council approves the Water Department's updated Miscellaneous Fees.

BACKGROUND: The Water Department maintains a miscellaneous fee schedule for as-needed requested services. These fees are charged at the time of service and include services such as engineering plan reviews, conservation plan reviews, and inspection services. These services are used by a small subset of customers and therefore are not included in the cost of service analysis used to set water rates. The fee amount is intended to directly offset the cost of labor to deliver the service and occasionally includes materials or parts. Miscellaneous fees account for approximately 1% of the Water Department's total revenue received and averages less than $150K per year.

The most recent fee schedule analysis occurred in 2009 and was adopted by Council by resolution NS-28,166 on February 9, 2010. More than half of the fees remained the same or were reduced from the previous study conducted in 2004. A completely new analysis of the fee calculations was completed using FY 2015 actual personnel costs and was not based on an industry index increase on the 2010 fees.

In developing the new proposal for miscellaneous fees, staff has endeavored to set fees at a level that result in recovery of 100% of the costs of providing the service. The percent of increase between the 2010 fees and the proposed fees vary greatly from 5% to 154% with 50% being the average increase. The following table shows our more commonly charged fees and the average number of customers paying the fee.

Fee	**Average annual quantity**
Application for service	3,000
Restore service after non-payment	225*
Engineering plan reviews	70

Engineering inspections	70
Landscape/irrigation plan reviews	25**
Repair of damage to SCWD equipment	5

*includes 25 requests for after-hour restoral.
**an increase in annual requests is anticipated due to recent ordinance revisions.

Water staff intends to review the labor rate used to set the miscellaneous fees on an annual basis and revise the fees annually during the budget process. Regular updates to the fees will avoid future dramatic changes in the fees.

FISCAL IMPACT: The fee revision will result in an increase of $75K in Water Sales and Service revenues.

PROPOSED MOTION: Motion to recommend that the City Council approves the Water Department's updated Miscellaneous Fees.

ATTACHMENTS:
Miscellaneous Fees effective July 1, 2017
Resolution NS-28,166

SANTA CRUZ WATER DEPARTMENT MISCELLANEOUS FEES

NEW ACCOUNTS AND BILLING

Service description	*Fee*
1. Application for service	$32 /application
2. Late payment charge (per SCMC 16.13.040)	10% or $5, whichever is greater
3. Returned payment charge (per resolution NS-26,259)	$25

RESTORING SERVICE AFTER SHUT-OFF FOR NON-PAYMENT

Service description	*Base fee*	*When additional fees may apply*
4. Restore service	$63	After 3:00pm, fee is $189 *

If customer self-restores service prior to making payment (in addition to above fee):

5. Labor to set or re-set a lock	$63/hour	Add cost for parts if lock is broken or a locking bracket is needed
6. Labor to remove meter if lock is broken	$126	Add $63/hour over 2 hours
7. Labor to reset meter after payment is received	$126	After 3:00pm, fee is $189 *

SERVICE CHARGES

Service description	*Base fee*	*When additional fees may apply*
8. To start or stop service	No fee	After hour rate will apply after 3:00pm *
9. Service at the meter (such as leak checks, to dig out box, and verify meter reads)	No fee	After hour rate will apply after 3:00pm *
10. Service beyond the meter on property side (such as testing for cross-connection)	$63/hour	Add parts as needed. After hour rate will apply after 3:00pm *
11. Repair of damage to SCWD equipment/facilities	$189	Add parts as needed. Add $63/hour each hour over 3 *
12. Unauthorized connection assessment and response	$189	Add parts as needed. Add $63/hour each hour over 3 *
13. Cancellation/Rescheduling without 1 business-day notice of appointments for contractor related assistance	$504	Per missed appointment

* Every effort will be made to schedule services to charge at the regular business hour rate. Requests for non-emergency services received after 3:00pm will be subject to the after-hours rate of $95/hour with a 2 hour minimum.

METER TESTING

Service description	*Deposit amount*	*Deposit policy*
14. In-field meter test (during regular office hours only)	No fee	Deposit will be returned if meter is found to run more than 2% fast.
15. Meter bench test, 5/8" or 3/4" meter	$95	
16. Meter bench test, 1" meter	$126	
17. Meter bench test, 1-1/2" to 3" meter	$252	
18. Meter bench test, 4" and over meter	$504	

CONSERVATION SERVICES

Service description		*Base fee*	*When additional fees may apply*
19. Landscape/ Irrigation plan review:	Up to 5,000 sq ft of landscape area	$126	Add $63/hour each hour over 2
	5,000 – 20,000 sq ft of landscape area	$252	Add $63/hour each hour over 4
	Over 20,000 sq ft of landscape area	$504	Add $63/hour each hour over 8
20. Plumbing fixture retrofit violation appeal (per resolution NS-28,167)		Based on violation amount	

PLAN REVIEW FEES

Charges will be applied for review of construction and development plans or drawings by Water Engineering to ensure compliance with water codes and design standards. Plan review fees are in addition to any other fees and charges that may be required as a condition of approval.

Service description		*Base fee*	*When additional fees may apply*
21. Residential w/ separate meter (includes fire service review)		$63/unit	None
22. Non-residential or residential on a master meter (does not include fire service review):	3/4" or 5/8" meter	$63	Add $63/hour each hour over 1
	1" meter	$126	Add $63/hour each hour over 2
	1-1/2" meter	$189	Add $63/hour each hour over 3
	2" meter	$315	Add $63/hour each hour over 5
	3" meter	$441	Add $63/hour each hour over 7
	4" meter	$567	Add $63/hour each hour over 9
	6" meter and over	$630	Add $63/hour each hour over 10
23. Monitoring well permit		$63/well	Add $63/hour each hour over 1
24. Production well permit		$189/well	Add $63/hour each hour over 3

25. Commercial fire service	$63 each	Add $63/hour each hour over 1
26. Fire hydrant	$126/hydrant	Add $63/hour each hour over 2
27. Water main extension	$347	Add $63/hr each hour over 5-1/2
28. Water main replacement	$693	Add $63/hour each hour over 11
29. Backflow device	$126	Add $63/hour each hour over 2
30. Backflow device retrofit	No fee	
31. Water facility (such as a pressure regulating station, booster pump station, or storage tank)	$252	Add $63/hour each hour over 4

INSPECTION SERVICES

Inspections are required for applicant/contractor-installed service lines, line extensions, and devices.

Service description		*Base fee*	*When additional fees may apply*
32. Water service		$189/tap	Add $63/hour each hour over 3
33. Fire hydrant		$189/hydrant	Add $63/hour each hour over 3
34. Backflow device		$126	Add $63/hour each hour over 2
35. Backflow device retrofit		No fee	
36. Water service / fire hydrant adjustment (A separate fee for a Public Works Street Opening Permit or Encroachment Permit may apply)		$63	Add $63/hour each hour over 1
37. Water main extension or replacement, Per lineal feet (lf)	Base fee:	$63 up to 100lf	Add $0.63/lf over 100lf
	Plus: Taps	$126/tap	
	Plus: Tie-Ins	$908 each	Add $63/hour each hour over 11
	Plus: Hydrants	$63 each	
	Plus: Thrust block	$63 each	
	Plus: Disinfection & pressure testing	$1,168 each	Add cost of dechlorination materials. Add $63/hour each hour over 12
	Plus: Water facilities	$189 each	Add $63/hour each hour over 3
38. Water main extension mapping		$252	Add $63/hour each hour over 4
39. Monitoring well permit		$63/well	Add $63/hour each hour over 1
40. Production well permit		$126/well	Add $63/hour each hour over 2

METER INSTALLATION

New service connections will require the installation of a new meter by SCWD. Size and type of meter installed will be according to the approved plans. Total fee will be labor plus the cost of the meter.

Service description	*Labor cost*	*Plus cost of meter*
41. 5/8”, 3/4", or 1” meter	$32	Meter estimate: $265 - $400
42. 1-1/2” or 2” meter	$126	Meter estimate: $950 -$1,500
43. 3”, 4”, or 6” meter	$189	Meter estimate: $1,500 - $9,000
44. Over 6” meter	Time and materials	

BULK WATER STATION USE

Users must comply with requirements of the Bulk Water Permit issued by SCWD.

Service description	*Fee*
45. Deposit	$166 minimum deposit, based on estimated use
46. Annual permit processing	$63 per truck
47. Reported usage, per ccf (monthly)	Current commercial inside rate (all commodity rates), $50 minimum
48. Failure to report use (monthly)	$100

HYDRANT METER USE

Service description	*Fee*
49. Deposit Deposit amount is the cost for full replacement. If the meter requires repairs upon return, the deposit amount to be returned will be reduced by the cost of parts and labor to repair.	$3,415
50. Application for service	$32
51. Water Ready to Service (monthly)	Current 3” meter inside rate
52. Water usage, per ccf (monthly)	Current commercial inside rate (all commodity rates)
53. Daily use fee	$5

OTHER REQUESTS

Service description	*Fee*
54. Records research / data requests This excludes public records subject to the CA Public Records Act	$63/hour

TEMPORARY CONSTRUCTION SERVICE

All standard applicable fees and charges apply. This includes, but may not be limited to, fees and charges for installation, inspection, application for service, water usage, and System Development Charge. Upon completion of the construction project, the System Development Charge will be refunded or credited to the resulting project. After 180 days, temporary status may be re-evaluated and account converted to permanent status.

RESOLUTION NO. NS-28,166

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA CRUZ
REVISING MISCELLANEOUS WATER SERVICE FEES AND
RESCINDING RESOLUTION NO. NS-28,144

WHEREAS, Title 16 of the Santa Cruz Municipal Code provides the rules and requirements governing the administration and operation of the City's Water System, including identification of the various sources of authority to establish and amend miscellaneous service fees; and

WHEREAS, the Water Department has submitted recommended updates to the miscellaneous service fees to adjust to increases and decreases in costs.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Santa Cruz miscellaneous water service fees will be charged as follows:

Section 1. MISCELLANEOUS SERVICE FEES

Installation Fees

1. Installation of Water Services, Private Fire Services, and Public Fire Hydrants

   Installation of water services will only be performed by City staff when engineering conditions warrant, otherwise the applicant shall obtain a permit from the City, pay an inspection fee and select a contractor from the list of approved contractors that will be provided upon request. If City staff does install the water service, the customer will be billed for time, overhead, and materials.

2. Meter Installation Fees

5/8" Disk Meter	$ 260
¾" Multi-Jet Meter	$ 285
1" Disk Meter	$ 310
1-1/2" C2 Omni Meter	$1,465
2" C2 Omni Meter	$1,650
3" C2 Omni Meter	$2,070
4" C2 Omni Meter	$3,370
6" C2 Omni Meter	$5,610

Meters larger than 6" will be charged at time, overhead and materials.

Any miscellaneous work performed by City staff will be charged at time, overhead and materials.

Plan Review Fees

Charges for review of construction and development plans or drawings by the Engineering Division to ensure conformance with water codes and design standards. Plan review fees are in addition to any other fees and charges that may be required as a condition of approval.

3. Water Service Plan Review Fees

Residential w/ separate Meter	$50 per unit including fire service
Non-Residential or Residential on a Master Meter	
¾"x 5/8" Meter	$50 plus $50 each hour over 1
1" Meter	$100 plus $50 each hour over 2
1 ½" Meter	$155 plus $50 each hour over 3
2" Meter	$255 plus $50 each hour over 5
3" Meter	$360 plus $50 each hour over 7
4" Meter	$460 plus $50 each hour over 9
6" Meter and larger	$515 plus $50 each hour over 10

4. Monitoring Well Permit Plan Review Fee $50 per parcel plus $50 each hour over 1

5. Production Well Permit Plan Review Fee $155 per parcel plus $50 each hour over 1

6. Commercial Fire Service Plan Review 4"/+ Fee $50 each plus $50 each hour over 1

7. Fire Hydrant Plan Review $100 each plus $50 each hour over 2

8. Water Main Extension Plan Review Fee $310 each plus $60 each hour over 5.5

9. Water Main Replacement Plan Review Fee $620 each plus $60 each hour over 11

10. Backflow Plan Review Fee $100 per project plus $50 each hour over 2; may be waved at City's discretion for City-required (non-customer-initiated) fire service retrofit larger than 2"

11. Facility Plan Review Fee $200 per facility plus $50 each hour over 4
(Pressure Regulating Station, Booster Pump Station, Tanks, etc.)

Inspection Fees

Charges for inspection of applicant-installed water service lines, line extensions and devices.

12. Water Service Inspection Fee	$155 per tap plus $50 each hour over 3
13. Fire Hydrant Inspection Fee	$155 each plus $50 each hour over 3
14. Backflow Device Inspection Fee	$100 per device plus $50 each hour over 2. May be waived at City's discretion for City required (non customer-initiated) fire service retrofit larger than 2"
15. Water Service/Fire Hydrant Adjustment Fee (without Street Opening Inspection)	$50 each plus $50 ea hour over 1

16. Water Main Extension/Replacement Inspection Fee

Number of Lineal Feet	$60 per 100 lf plus .60/lf over 100 lf
Plus: Taps	$120 per tap
Plus: Tie-Ins (Water Mains)	$685 per tie-in plus $60 for ea hr over 11
Plus: Hydrants	$60 per hydrant
Plus: Thrust Blocks	$60 per thrust block
Plus: Disinfection & Pressure Testing	$915 each plus $60 for each hour over 12
Plus: Additional Facilities such as Pressure Regulating Station, etc.	$175 each plus $60 for each hour over 3

17. Water Main Extension Mapping Fee	$235 per project plus $60 ea hour over 4
18. Monitoring Well Permit Inspection Fee	$50 per well plus $50 each hour over 1
19. Production Well Permit Inspection Fee	$100 per well plus $50 each hour over 2

Conservation Fees

20. Landscape/Irrigation Plan Review
Charges for Review of Landscaped Portion of Applicant's Site Plan

Up to 5,000 sq ft landscape area	$85 plus $40 each hour over 2
5,000 – 50,000 sq ft area	$170 plus $40 each hour over 4
50,001 & above	$340 plus $40 each hour over 8

21. Appeal to Recordation of Notices of violation in connection with enforcement of plumbing fixture retrofit regulations	$100 per appeal

Customer Service Fees

Charges for miscellaneous services and activities provided to water customers.

22. Application for Water Service	$20 per application
23. Restoration of Service After Shut-Down	
During Regular Working Hours	$40 per call
After Regular Working Hours	$130 per call
24. All Other Non-Emergency After Hours Calls	$130 per call plus $65 each hour over 2

25. By-Request Meter Testing
Charges for meter testing upon customer request will only be applied if meter registers less that 2% fast.

5/8" and ¾" meters	$60
1" meter	$75
1 ½", 2", & 3" meters	$150
4", 6", & 8" meters	$300

26. Repairs - Charges to Repair Damage to City-Owned Customer Water Service Facilities

Locks & Brackets	$50
Other	Time, Overhead, and Materials

27. Set or Remove Meters $75
Charge for removing or installing replacement meters.

28. Bulk Water - Charges for use of water for construction or other temporary purpose through the bulk water station, a temporary service, or a temporary fire hydrant. If temporary service is to be abandoned upon completion of the construction project, connection fees will be refunded or credited to the project.

Bulk Water Station

Deposit	Based on estimated use, $100 minimum
Annual Permit	$30 per truck
Service Charge	Based on actual use, $30/mo minimum
Failure to Report Use	$60 per month minimum
Quantity Rate	Current Quantity Rate

Temporary Service

Deposit	Based on estimated use, $100 minimum
Installation & Inspection	Fees as indicated in this Resolution
Service Application	$20
Readiness to Serve	Current Readiness-to-Serve Rate
Quantity Charge	Current Quantity Rate
System Development Charge	Current System Development Charge

Hydrant Meter (limited availability)	
Deposit	$2,000 for hydrant meter with backflow
Service Application	$30
Daily Use Fee	$5 per day
Quantity Charge	Current Quantity Rate

29. Records Research $40 per hour

30. Routine Service Calls During Regular Working Hours

Start or Stop Service	No Charge
Check Meter Reading	No Charge
Check Pressure	No Charge
Check for leak	No Charge

31. Unauthorized Connection Fee $95
(for disconnecting illegal water connection)

32. Special Customer Service Call $40 per hour

33. Fee for Insufficient Notification $335 per incident
(of cancellation, postponement or rescheduling of contractor-requested assistance)

Section 2. EFFECTIVE DATE

This Resolution shall be effective on February 23, 2010.

PASSED AND ADOPTED this 9th day of February, 2010, by the following vote:

AYES: Councilmembers Lane, Mathews, Beiers, Madrigal, Robinson; Vice Mayor Coonerty; Mayor Rotkin.

NOES: None.

ABSENT: None.

DISQUALIFIED: None.

APPROVED: _____
Mayor

ATTEST: _____
City Clerk

WATER COMMISSION
INFORMATION REPORT

DATE: 3/28/2017

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Heidi Luckenbach, Deputy Director/Engineering Manager

SUBJECT: Scopes of work for Water Supply Augmentation Strategy Work Plan: Raftelis - Financial Analysis of RW/ Dudek - Update of Desal project

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RECOMMENDATION: That the Water Commission accept information and provide feedback on the scopes of work for Raftelis Financial Consultants Inc. (Los Angeles CA) for Phase 1 of the Water Reliability Impact Study and Dudek (Santa Cruz CA) for the Preparation of a Desalination Feasibility Update.

BACKGROUND: The overarching goal of the Water Supply Advisory Committee's (WSAC) Plan is to provide significant improvement to the sufficiency and reliability of the Santa Cruz water supply by 2025. There are three fundamental strategies recommended by the committee and being pursued by Water Department staff to meet the goal.

Water conservation. In addition to the existing conservation programs the WSAC recommends looking at new programs, such as increased rebates and better management of peak season demand. The goal of these additional programs would be to further reduce demand by 200 to 250 million gallons per year by 2035, with a particular focus on producing savings during the peak water demand season.

Groundwater Recharge by "In Lieu" water transfers or Aquifer Storage and Recovery. Using In Lieu Water transfers, available winter flows would be delivered to Soquel Creek Water District and/or Scotts Valley Water District customers, thus allowing reduced pumping from these regional aquifers and enabling the aquifer to passively rest and recharge. Using Aquifer Storage and Recover (ASR), available winter flows would be injected into aquifers thereby actively recharging aquifers. A portion of the water delivered using In Lieu or ASR would be effectively banked in the aquifers to be extracted and available to the City when needed in future dry years.

Advanced-treated recycled water, with desalination as a back-up. In the event the groundwater storage strategies prove insufficient to meet the plan's goals, these two options would be developed as supplemental or replacement supply.

DISCUSSION: Significant progress continues to be made to better understand the feasibility of all of the water supply alternatives to meet the committee's goals. The timing of current studies is consistent with the WSAC Implementation Plan and Timeline as described in the final report. As shown on the timeline and described in more detail on Table 16 of the final report, sufficient information about the Advanced Treated Recycled Water and Desalination alternatives is being developed to "Select preferred Element 3" by the end of calendar year 2017. (Element 3 being the recycled water and desalination alternatives.) Table 16 goes on in describing the type of information likely needed to make this decision:

> Milestone Node 3.1: By the end of CY2016, Identify recycled water alternatives; increase understanding of recycled water (regulatory framework, feasibility, funding opportunities, public outreach and education).
>
> Decision Node 3.2: By the end of CY2017, Complete high level feasibility studies, as-needed demonstration testing, and conceptual level designs of alternatives; define CEQA processes; and continue public outreach and education. Select preferred Element 3.

To develop the information to meet these timelines staff is recommending the work be completed by Raftelis and Dudek. In summary, the Raftelis scope will complement the current work being performed by Kennedy/Jenks and the Recycled Water Feasibility Planning Study by developing understanding of the financial impacts associated with the recycled water project alternatives, identifying potential funding sources, and identifying policy options on pricing recycled water. This work will be needed to do cost comparisons of the recycled water alternatives and is in part dictated by the grant received by the State Water Resources Control Board.

The Dudek scope will:

- Make an assessment of changed conditions from the time of the release of the Draft Environmental Impact Report for the scwd2 Regional Seawater Desalination Project to the present;
- Update the project description and costs based on any new information;
- Develop high-level environmental compliance and permitting approaches; and
- Assess the timeliness of implementation of such a project.

Next Steps: As can be seen in Attachment C, several additional scopes of work are needed to be able to conduct the Element 3 comparison and the longer term comparison of Element 3 with Aquifer Storage and Recovery and In Lieu.

- Phase 2 of the Raftelis work will conduct a cost comparison of the recycled water alternatives with the desalination, ASR and In Lieu alternatives using the cost metric recommended by the WSAC;
- Brown and Caldwell will be asked to update the costs they developed during WSAC work on the ASR and In Lieu alternatives; and
- Corona will be asked to do a triple bottom line type analysis on the alternatives to compare them based on other WSAC-recommended metrics.

Staff is working on developing the information needs and the scopes of work that will yield this information.

FISCAL IMPACT: Funds are available in the FY 2017 capital improvement program budget for these two scopes of work.

RECOMMENDED MOTION: Motion to accept information and provide feedback on the scopes of work for Raftelis Financial Consultants Inc. (Los Angeles CA) for Phase 1 of the Water Reliability Impact Study and Dudek (Santa Cruz CA) for the Preparation of a Desalination Feasibility Update.

Attachments:
Attachment A: Proposal - Raftelis
Attachment B: Proposal – Dudek
Attachment C: Work Plan

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March 27, 2017

Heidi Luckenbach
Deputy Director/Engineering Manager
City of Santa Cruz Water Department
212 Locust St., Suite C
Santa Cruz, CA 95060

Subject: Proposal for Phase I of the Water Reliability Financial Impact Study

Dear Ms. Luckenbach:

Raftelis Financial Consultants, Inc. (RFC) is pleased to submit this proposal to assist the City of Santa Cruz Water Department (SCWD) to conduct a Water Reliability Financial Impact Study for the City of Santa Cruz (City).

The following proposed scope of services is intended to meet the short-term objectives of the SCWD and fulfill the economic analysis requirement of the Regional Recycled Water Facilities Planning Study (RWFPS). RFC will obtain a high-level understanding of the financial impacts associated with the recycled water project alternatives and produce the "Construction Financing Plan and Revenue Program" section for the Recycled Water Facilities Planning Study to meet the grant requirements of the State Water Resource Control Board (SWRCB) Water Recycling Funding Program.

Based on discussions with Department Staff and review of the SWRCB Water Recycling Funding Program Guidelines, Phase I of the study will address the following items:

- Evaluate alternative funding sources
- Examine the policy options on pricing recycling
- Identify Water Pollution Control Costs
- Provide Annual Cost Projections
- Identify Sunk Costs or Indebtedness

Phase II of the Water Realiability Finanical Impact Study (not covered in this proposal) will transition from a high-level analysis to a detailed analysis whereby RFC works closely with Department Staff to evaluate the various scenarios, present results, and conclude a full cost of service study.

Scope of Services

TASK 1 – PROJECT INITIATION, COMMUNICATION, AND ON-GOING PROJECT MANAGEMENT

It will be critical to identify the revenue requirements over the study period, especially for anticipated phased implementation of the proposed recycled water system. Therefore, a key element of this study will be obtaining and incorporating the capital costs, operations and maintenance costs, and expected demand for each alternative recycled water project. As part of this task, RFC has allotted one webinar to walk through the data and discuss any assumption or data-related questions in order to ensure the information has been captured correctly in the financial plan.

Meetings/Workshops: One (1) Webinar
Deliverables: None

TASK 2 – EVALUATE ALTERNATIVE FUNDING SOURCES

RFC will briefly evaluate and discuss alternative funding sources including, but not limited to, Pay-As-You-Go financing, Capacity Charges, Debt Financing, Grants, and Loans. The related section of the "Construction Financing Plan and Revenue Program" will identify potential funding sources but will not determine which funding sources the City will ultimately use.

Meetings/Workshops: None
Deliverables: Table Summarizing Possible Funding Sources

TASK 3 – EXAMINE PRICING POLICY FOR RECYCLED WATER

Based on the recent cost of service study and working closely with Department Staff, RFC will provide background information into the existing pricing policy's of SCWD, including current and future capital spending and feasibility studies. RFC will detail the policy options the City may want to consider for pricing recycling. Options discussed will include: fixed versus variable cost recovery, benefits to potable water customers, benefits to wastewater customers, and the allocation of costs to those that benefit from recycled water projects.

Meetings/Workshops: One (1) Webinar to present finding
Deliverables: Table Summarizing Revenue Program

TASK 4 – IDENTIFY WATER POLLUTION CONTROL COSTS

RFC will separately identify any water pollution control costs, if applicable.

Meetings/Workshops: None
Deliverables: None

TASK 5 – ANNUAL COST PROJECTIONS

Based on the information provided, RFC will provide a high-level analysis of the construction and operating costs for each of the recycled alternative plans during the study period. The financial plan analysis will include the annual costs of the recycled project(s), projected demand, allocation of costs to users, and resulting projected unit costs. In addition, RFC will examine the impact at various levels of underutilized recycled water usage. This information is intended to be high-level, therefore, there will be a disclaimer that a full cost of service study will be needed in order to determine the actual recycled rates.

Meetings/Workshops: Up to (3) Webinars to discuss projections and finalize Financial Plan Model
Deliverables: Draft Financial Plan Model in Microsoft Excel

TASK 6– IDENTIFY SUNK COSTS AND INDEBTEDNESS

RFC will separately identify any sunk costs or indebtedness, if applicable.

TASK 7 – REPORT DEVELOPMENT

RFC will prepare tables and explain the methodology and key assumptions from the tasks listed above in a brief report which will be integrated into the RWFPS. Comments from the Department staff will be incorporated into the Final Report and the financial plan model will be refined to reflect any issues or concerns raised. The report will be submitted to the Department and to the extent possible will include appropriate supporting data from the Model to address the requirements of the State Water Resources Control Board Water Recycling Funding Program.

Meetings/Workshops: One (1) phone conference, if needed
Deliverable: Final Report

Fees and Hours

We propose to complete the scope of work outlined above on a time and materials basis with a not-to-exceed cost of $15,460. The following work plan provides a breakdown of the estimated level of effort required for completing each task described and the hourly billing rates for the personnel scheduled to complete the project.

Santa Cruz Water Reliability Financial Impact Study - Phase 1
Proposed Hours and Fees

Task	Task Descriptions	No of Webinars	Hours Requirements			Total Fees & Expenses
			SG	AB	Total	
	HOURLY RATES		$280	$200		Total
1	**Project Initiation, Communication, and Project Mgt**	1	2	4	6	**$1,420**
2	**Evaluate Alternative Funding Sources**	0	0	4	4	**$840**
3	**Examine Pricing Policy for Recycled Water**	1	4	8	12	**$2,840**
4	**Identify Water Pollution Control Costs**	0	0	1	1	**$210**
5	**Annual Cost Projections**	3	10	20	30	**$7,100**
6	**Identify Sunk Costs and Indebtedness**	0	0	1	1	**$210**
7	**Report Development**	1	4	8	12	**$2,840**
	TOTAL ESTIMATED MEETINGS / HOURS	6	20	46	66	
	PROFESSIONAL FEES		**$5,600**	**$9,200**	**$14,800**	
SG - Sanjay Gaur - Project Manager **AB - Andrea Boehling - Lead Consultant** **SC - Staff Consultants** **Admin - Administrative Staff**					**Total Fees**	**$14,800**
					Total Expenses	**$660**
					TOTAL FEES & EXPENSES	**$15,460**

DUDEK

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March 24, 2017

Heidi Luckenbach
Deputy Water Director/Engineering Manager
Santa Cruz Water Department
212 Locust Street, Suite C
Santa Cruz, California 95060

Subject: Proposal to Prepare a Desalination Feasibility Update Review

Dear Ms. Luckenbach:

Dudek is very pleased to submit this proposal to the City of Santa Cruz Water Department (SCWD) to review and update the feasibility of pursuing desalination. Dudek has broad CEQA, NEPA and permitting experience with desalination projects in California, working for public and private project owners as well as on regulation development. Dudek was also a consultant to the City of Santa Cruz on the scwd^2 Regional Seawater Desalination Project (scwd^2 Project) to provide guidance on permitting for the project and several of their current staff were authors of the scwd^2 Project Draft Environmental Impact Report (DEIR).

For this effort, Dudek is joined by Kennedy/Jenks, who will support Dudek in providing a refined characterization of a potential desalination project that could meet current objectives based on prior facility configurations from the scwd^2 Project. They will also provide updated cost estimates and an assessment of timeliness of implementation. Kennedy/Jenks provided program management services for the scwd^2 Desalination Program through the City and is currently preparing the Recycled Water Facilities Planning Study (RWFPS) for the City. Their involvement will allow for consistent costing assumptions and methodologies for a direct comparison between these two types of water supply projects. As suggested by the City, this project team will provide the most efficient means for providing this scope of services as recommended by the WSAC.

This proposal describes the background for the proposed work effort and provides a scope of work, schedule, and cost estimate.

BACKGROUND

The proposed feasibility update is being done to support the City's selection of a supplemental or replacement supply per the City of Santa Cruz (City) Water Supply Advisory Committee's (WSAC's) Final Report on Agreements and Recommendations (Final Report). The overarching goal of this report, which has now been incorporated into the 2015 Urban Water Management Plan (UWMP), adopted by the City in 2016, is to provide significant improvement in the sufficiency and reliability of

the Santa Cruz water supply by 2025. The report provides strategies for addressing the worst year gap of 1.2 billion gallons. The recommended strategies include:

- Conservation - Strengthened water conservation programs to reduce demand.
- Recharge - Storage of available San Lorenzo River flows during the rainy season in regional aquifers through "in lieu" water transfers, for passive recharge, and aquifer storage and recovery (ASR) for active recharge.
- Supply Augmentation - Supply augmentation using advanced-treated recycled water with desalination as a back-up, should the use of advanced-treated recycled water not be feasible.

SCWD is currently assessing the feasibility of supply augmentation with advanced-treated recycled water in the event that groundwater storage strategies prove to be insufficient to meet the stated goals of cost-effectiveness, timeliness or yield. This feasibility assessment will be available later this year and will be used to support the City's selection of its backup source of water.

Desalination as a supplemental supply was previously determined in the City's Integrated Water Plan (IWP), adopted in 2005, to be the most feasible and reliable alternative for a supplemental supply of drinking water. Consequently, desalination was selected by the City of Santa Cruz to be their preferred alternative during the prior IWP planning process. Between 2007 and 2013 background studies on treatment, brine, energy, intake, etc. were conducted to support the development of the scwd^2 Project DEIR, which was released for public comment May 2013.

The City chose to suspend the pursuit of desalination in 2013 to allow for a broader public discussion on the topic of water supply. The recommendations of the WSAC include desalination as a back supply, as described above. However, some conditions have changed since the City decided to suspend its pursuit of desalination in 2013, which may have an impact on the previous DEIR analysis and findings. For example, the Amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-Substantive Changes (Desalination Amendment) has been in effect since 2016. The Desalination Amendment sets forth a very specific approach, in addition to priorities related to technology and design, for the regional water quality control boards to analyze and ensure that all proposed new or expanded seawater desalination facilities utilize the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life, including plankton and larvae, as required by Water Code section 13142.5(b).

Other changed conditions include updated water demand and supply information, worst year gap information, and planning objectives from the Final Report, which may influence the size and/or viability of a potential desalination facility. This pending feasibility review will review these and other

changed conditions, define a viable desalination project given changed conditions, and provide updated cost estimates, a high-level review of CEQA and NEPA compliance and permitting approaches, and an assessment of the timeliness of implementation of such a project. This information will be used to support the City's selection of its backup source of water later this year and will be comparable to the information provided in the RWFPS.

SCOPE OF SERVICES

Task 1: Project Initiation, Coordination & Meetings

Under this task, the Dudek team will meet with the SCWD and other involved City agencies in a kick-off meeting. During this meeting we will refine the scope, deliverables and schedule, agree to the responsibilities of Dudek and the City, review protocols for agency contacts, and gather relevant information. The Dudek project manager and one member of Kennedy/Jenks will attend the initial project kick-off meeting.

This task will also provide for project coordination over the duration of the performance period in 2017 to include meetings, conference calls, and email communications with the City and Dudek team members. We assume that the Dudek Project Manager would attend a meeting/conference call twice a month over the duration of the 6-month schedule and that two staff from Kennedy/Jenks will attend conference calls twice a month over the same period. Additionally, the Dudek Project Manager and 1 staff member from Kennedy/Jenks will attend two Water Commission meetings during the project performance period.

Task 2: Assessment of Changed Conditions

This task will review key changes that came out of the Final Report and 2015 UWMP related to the worst-year gap and other project objectives that a desalination project would need to meet. It will also assess changes in regulations, plans, and/or environmental conditions that would affect the viability of pursuing a desalination project as previously characterized, and/or that would affect the CEQA/NEPA or permitting approaches for a desalination project. The results of this task will be provided in the report prepared under Task 7.

Task 2A: Update Project Objectives

The Final Report and the 2015 UWMP will be reviewed to determine the overarching project objectives that would need to be fulfilled if a desalination project were to be pursued. Additionally, it is assumed that the SCWD and/or their consultant(s) will provide the average annual and/or peak capacity of desalinated water that would fill the worst-year gap, based on existing or pending system modelling to be provided by Gary Fiske. The objectives will be incorporated into our report and used as the basis for identifying a viable desalination project in Task 3A below.

Task 2B: Review of the Ocean Plan Desalination Amendment and Need for Additional Study

Dudek will review the design approaches for the scwd^2 Project components and the basis for such design approaches in relationship to the new Ocean Plan Desalination Amendment. In particular, Dudek will review the existing feasibility studies that considered subsurface intake design options for the project. The Desalination Amendment emphasizes the use of subsurface intakes as the best available design alternative for seawater intakes. Given that the scwd^2 Project included an open ocean intake, a review of the prior studies that formed the basis for this design approach is needed. In addition, the Desalination Amendment requires a complex analysis of other factors related to siting and design that will be reviewed in the context of prior studies for the scwd^2 Project. Kennedy/Jenks will provide high-level advice on factors related to siting and design considerations, building on prior knowledge from their role as the program manager for the scwd^2 program. Dudek will bring our experience working with the new Desalination Amendment during the environmental review and permitting of other desalination projects to bear in the review of this topic. The need for additional study to investigate the viability of all or some of the raw seawater being provided by a subsurface intake will be determined.

Task 2C: Review of Other Changed Conditions

Dudek will review the full range of environmental topics evaluated in the scwd^2 Project Draft EIR to determine whether there are any other changed regulations, plans, and/or environmental conditions that would affect the viability of pursuing desalination and/or the CEQA/NEPA or permitting approaches for a desalination project.

Task 2D: Limited Agency Consultations

Dudek may conduct limited consultations with the California Coastal Commission and/or the State Water Quality Control Board staffs to obtain input on tasks 2B and 2C above. Agency consultations with the U.S. Army Corps of Engineers and the Monterey Bay National Marine Sanctuary may also be conducted to inform Task 4A, Federal Lead Agency Determination.

Task 3: Desalination Project Characteristics and Cost Estimates

Task 3A: Desalination Project Characteristics & Conceptual Designs

Based on the outcome of Task 2 above, the Dudek team will prepare a high-level description of a desalination project that would meet the refined project objectives and reflect other changed conditions. The project description will likely be similar to the scwd^2 Project in siting and design, but may:

- Provide for a somewhat different capacity, based on the updated project objectives (see Task 2A above);

- Exclude the intertie component of the project, given that the focus is on meeting the City's objectives; and
- Consider a subsurface intake design for all or a portion of the intake volume needed for the project, based on the requirements of the Ocean Plan Desalination Amendment (see Task 2B above).

It is assumed that no new component site locations (e.g., plant sites, intake locations) will be identified or assessed. Conceptual design drawings, graphics or figures will be provided to support the description of the project. These drawings and graphics will be adapted from the previously prepared scwd^2 Project conceptual designs for the various components of the project. It is assumed that CADD files and other raw files from the scwd^2 Project conceptual designs will be available from the SCWD for the task.

Task 3B: Cost Estimates for Desalination Project

Dudek team member Kennedy/Jenks will prepare updated capital and O&M cost estimates for the desalination project description developed in Task 3A. The cost estimating approach currently being used for the RWFPS to assess the feasibility of supply augmentation with advanced-treated recycled water will be applied to estimate costs.

- Costs will be developed based on a Class 5 level representing Concept Screening level information, with an estimated accuracy range between -30 percent and +50 percent. Given that the desalination project from Task 3A will be based on the scwd^2 Project preliminary design concepts, some costs may be more reflective of a Class 4 level, representing Feasibility Level with an estimated accuracy range between -20 percent and +30 percent.
- Costs will be based on the capital, operating, and life cycled costs developed for the scwd^2 project updated to reflect refinement of project assumptions identified in prior Tasks.
- The capital cost information provided in the scwd^2 Project will be updated using an ENR index, or other inflation rate provided by the SCWD, with adjustments at a high-level to reflect current technologies, recently constructed desalination facilities and major facility modifications.
- Capital costs will be amortized over the life of the project (based on an agreed upon interest rate and anticipated life of project facilities) and divided by the defined volume of desalinated water delivered to provide an estimate of the life cycle unit capital cost per acre-foot ($/AF) and/or cost per million gallons ($/MG).
- Operations and Maintenance (O&M) costs will similarly be assessed to reflect current energy prices, labor costs and other operational considerations based on major facility modifications.

- Dudek will provide an updated estimate of "soft costs" for environmental studies, CEQA and permitting services, as-needed. The basis for the "soft costs" estimate will be coordinated with the SCWD to ensure that the same factors are used for in-lieu, ASR and recycled water projects.

Costs will be summarized in a succinct cost technical memorandum from Kennedy/Jenks that describes the cost estimate approach, documents major assumptions, and summarizes costs. Engineers' opinion of probable cost tables will be provided as an attachment. Task 3B includes data collection efforts from prior studies.

Task 4: CEQA/NEPA Approach

Task 4A: Identification of Likely Federal Lead Agency

Based on the results or the prior tasks and the identification of a desalination project that would meet updated project objectives, Dudek will assess the likely Federal Lead Agency for NEPA compliance. It was previously assumed that the U.S. Army Corps of Engineers would function as the Federal Lead Agency given the Clean Water Act Section 404 and Rivers and Harbors Act permits that would need to be issued for the intake portion of the project. Previously, the Monterey Bay National Marine Sanctuary (Sanctuary) was not considered to be a likely Federal Lead Agency given that they authorize other approvals/authorizations, but don't actually issue a permit. However, since 2013, the Sanctuary has now taken the Federal Lead Agency role for NPEA for two desalination projects that would involve disturbance of the seabed in the Sanctuary, including the CalAm Monterey Peninsula Water Supply Project EIR/EIS and the DeepWater Desal Monterey Regional Water Project EIR/EIS. Given that role, the Sanctuary will need to be considered as the possible Federal Lead Agency for a desalination project pursued by the City, depending on the location of the seawater intake structure. The seawater intake location options previously considered for the scwd^2 Project at and near the Municipal Wharf are outside of the Sanctuary boundaries. Whereas, the intake locations located along Westcliff Drive are located within the Sanctuary boundaries.

Based on the outcome of Task 2D and this task, Dudek will assess the likelihood of needing to prepare a joint CEQA/NEPA document (EIR/EIS).

Task 4B: Development of CEQA/NEPA Approach

Based on the previous tasks, Dudek will develop a high-level CEQA and NEPA approach for the desalination project. The approach will include:

- Identification of the CEQA and NEPA Lead Agencies,
- Need for a joint CEQA/NEPA document
- Use of the prior Draft EIR and technical studies for the scwd^2 Project

- Need for project description refinements
- Need for additional and/or supplemental technical studies to refine the project description and/or support the CEQA document

A detailed scope of work, cost estimate, and schedule for conducting CEQA and NEPA compliance will not be prepared at this time. However, if desalination is selected by the City as the backup supply, a detailed scope of services can be prepared upon request.

Task 5: Permitting Approach

As a result of the above tasks, Dudek will identify any permitting hurdles that could hinder the ability of the City to obtain one or more of the Coastal and regulatory permits for the project. Particular focus will be placed on new requirements resulting from the Desalination Amendment, and how those requirements are currently being applied to other desalination projects. In particular, the State Water Resources Control Board has taken an active role in assisting the Regional Boards in interpreting the Desalination Amendment requirements. Moreover, the Coastal Commission has authority that in many ways overlaps with the issues addressed by the Desalination Amendment, but would be implemented independently. It may be beneficial to obtain agreement from all of the permitting agencies on processing requirements and sequencing of actions, to avoid a situation where one agency's requirements trigger a change in another agency's prior approvals. Such an interagency agreement has been solicited and received on another recent desalination project. Our report may make recommendations about obtaining such agreement.

Task 6: Assessment of Timeliness

Based the results of Tasks 3 through 5, the Dudek team will estimate the timeliness of the desalination project. Specifically, we will estimate the potential timeline required for environmental review and permitting, the anticipated year of implementation and the mid-point of construction.

Task 7: Report Preparation

Dudek will prepare a draft and final technical memorandum to document the results of the above tasks. The costs technical memorandum from Task 3B will be appended to our memorandum and will support Section 4 below. It is expected that the memorandum will be organized as follows:

1. Introduction
2. Project Background
3. Assessment of Changed Conditions
4. Desalination Project Characteristics Based on Changed Conditions
5. CEQA/NEPA Compliance Approach

6. Permitting Approach
7. Timeliness of Implementation
8. Recommendations

It should be noted that the SWRCB Water Recycling Program Funding – Recommended Planning Outline for Water Recycling Projects, which is the basis for the RWFPS, does not apply to a desalination project. Therefore, the technical memorandum for the desalination project will be organized somewhat differently, but will provide for comparable information on yield, cost, and timeliness.

The SCWD will review the memorandum and provide comments to Dudek. A final memorandum will be prepared based on the comments received. One round of revisions is assumed.

SCHEDULE

Dudek's estimated schedule showing the expected sequence of tasks for completion of the desalination technical memorandum is provided below. Assumptions that form the basis for the schedule are included in the task descriptions above. As shown in the table, we expect to complete the memorandum in approximately 5 months, with an anticipated start date of April 26, 2107, and completion of the memorandum by October 2, 2017. The schedule will be reviewed in detail with SCWD during the project kick-off meeting and refined as necessary.

Task	Start Date	End Date
Task 1: Project Initiation, Coordination & Meetings	4/26/2017	10/2/2017
Task 2: Assessment of Changed Conditions	5/8/2017	6/9/2017
Task 3: Desalination Project Characteristics & Conceptual Designs	6/12/2017	7/28/2017
Task 4: CEQA/NEPA Approach	6/12/2017	7/28/2017
Task 5: Permitting Approach	6/12/2017	7/28/2017
Task 6: Timeliness of Implementation	6/12/2017	7/28/2017
Task 7: Draft Report	7/31/2017	8/18/2017
Task 7: Final Report (includes 3-week City review)	8/21/2017	10/2/2017

COST ESTIMATE

Dudek's time and materials, not-to-exceed cost estimate for conducting the above services is approximately $134,069. The table below provides the task-level breakdown for the cost estimate. Assumptions that form the basis for the cost estimate are included in the task descriptions above. These services will be provided over the next 5 months based on the attached 2107 rate schedule. It is understood that the work will be conducted under a new Professional Services Agreement with the City.

Task	Cost Estimate
Task 1: Project Initiation, Coordination & Meetings	$36,213
Task 2: Assessment of Changed Conditions	$21,105
Task 3: Desalination Project Characteristics & Conceptual Designs	$50,903
Task 4: CEQA/NEPA Approach	$7,140
Task 5: Permitting Approach	$1,800
Task 6: Timeliness of Implementation	$4,518
Task 7: Report Preparation	$12,390
TOTAL COST	**$134,069**

Dudek will serve the SCWD from our Santa Cruz Office located conveniently in downtown and may be supported by other offices that have staff with desalination expertise. Dudek is on the City's list of authorized vendors. Please feel free to give Ann a call at 831-226-9373 or email her at asanasevero@dudek.com if you have any questions about this proposal.

Sincerely,

Ann Sansevero, AICP
Principal/Project Manager

Joe Monaco, AICP
Executive Vice President

1-3-17 Working Draft – Calendar 2017 Water Commission Work Plan (updated 03/27/17)

Major Water Commission Work Plan Item	Anticipated City Council Action on Water Commission Recommendations
~~January 9, 2017~~	
➢ ~~2017 Work Plan~~	
➢ ~~Commission review and action on a Water Department proposed Quarterly Financial Report for the Water Commission~~	
~~February 6, 2017~~	
➢ ~~Election of Officers~~	
➢ ~~2017 Water Supply Outlook – First Look~~	
➢ ~~2nd Quarter FY2017 Financial Report~~	
➢ ~~Recycled Water Workshop (Study Presentation and Discussion)~~	
➢ ~~Water Commission review and comment on draft Memorandum of Agreement with Scotts Valley Water District and San Lorenzo Valley Water District for collaborative work on water transfers and exchanges including potential in lieu and aquifer storage and recovery projects~~	
➢ ~~Draft Agenda for 03/14/17 Joint Meeting~~	
~~March 6, 2017~~	
➢ ~~Water Department Strategic Framework for Communication~~	➢
➢ ~~Presentation on FY 2018 – FY 2027 Draft Capital Improvement Plan (CIP)~~	➢
➢ ~~March 14, 2017 Joint Meeting Overview~~	➢
~~March 14, 2017(tentative)~~	
~~Joint Study Session with City Council on WSAC Recommendations and Implementation of Water Supply Augmentation Strategy~~	
April 3, 2017	
➢ 2017 Water Supply Outlook	➢ Peak Season 2017 Water Supply Outlook – Council Action
➢ Water Commission action on FY 2018-2027 CIP	➢ City Council study session on FY2018-2020 CIP (Council will look at the 10 year plan, consider the 3 year plan, and take action on the first year)
➢ WSAC Communication Plan	
➢ Scope of Work for Financial Analysis of RW alternatives (Raftelis); scope of work for desalination feasibility (Dudek)	➢ Contract with Dudek – Council Action
➢ Misc Fees	➢
➢ Soquel MOU with the City of Santa Cruz	➢
May 1, 2017	
➢ 3rd quarter FY2017 Financial Report	➢
➢ Water Commission Recommendation on FY2018 Operations and Maintenance Budget	➢ Council Hearings on the City's Operating Budgets; Misc Fees, SDC Fees
➢ Scopes of Work for Corona and Brown & Caldwell	
➢ Report out on the results of the ASR hydrogeochemical testing	
June 5, 2017	
➢ Quarterly Update on WSAS	
➢ Water Supply Criteria Discussion (WSAS Work Plan)	
➢	Council action on operating and CIP budgets
➢ Water Commission update on regional activities to implement the California Sustainable Groundwater Management Act	
July 3, 2017	
➢ Recommend Cancelling as this falls the Monday before the 4th of July	
August 7, 2017	
➢ RWFPS – Preliminary Recommendations (incl Raftelis work)	
September 4, 2017 (likely reschedule to the 11th)	
➢ Quarterly Update on WSAS	
➢ RWFPS – Discuss Draft Report (provided 8/21)	
➢ Element 3/Desal – Discuss Draft Report (provided 8/21)	
October 2, 2017	
➢ **4th Quarter FY2017 Financial Report**	
➢ Report on the results of the Phase I study on Aquifer Storage and Recovery	
➢ RWFPS – Discuss Draft Report	
➢ RWFPS – Raftelis Phase 1 work ➢	
November 6, 2017	
➢ RWFPS – Receive Final Report	
➢ Element 3/Begin Discussions on Comparative Analysis	
December 4, 2017	
➢ Quarterly Update on WSAS	
➢ 1st Quarter FY2018 Financial Report	

Unscheduled Items – Note these items will be scheduled when time is available and they are ready for presentation to/discussion with the Water Commission –

- Overview of the Department's system maintenance program
- Water affordability
- Asset management program
- City Council Action on Memorandum of Agreement with Scotts Valley Water District and the San Lorenzo Water District on collaborative work on water transfers and exchanges
- City Council Action on Soquel MOU with the City of Santa Cruz

WATER COMMISSION
INFORMATION REPORT

DATE: 3/30/2017

AGENDA OF: April 3, 2017

TO: Water Commission

FROM: Rosemary Menard

SUBJECT: Memorandum of Agreement between the City of Santa Cruz and Soquel Creek Water District regarding treated wastewater effluent for use in a potential future Pure Water Soquel Project

RECOMMENDATION: That the Water Commission recommend that the City Council approve the Memorandum of Agreement between the City of Santa Cruz and Soquel Creek Water District regarding treated wastewater effluent for use in a potential future Pure Water Soquel Project.

BACKGROUND: The Soquel Creek Water District (District) is exploring a set of potential supplemental water supply options that would provide it with the resources it needs to address the critical groundwater overdraft and the threat of sea-water intrusion in the Santa Cruz Mid-County Groundwater Basin, which is currently its sole source of supply.

One of the options the District is exploring is a groundwater replenishment project that would use advanced treated purified wastewater as a source of supply. The District does not own or operate a wastewater treatment facility that can provide it with a source of secondary or tertiary treated wastewater for such a project and has been working with the City of Santa Cruz's wastewater treatment facility (WWTF) staff explore the potential for using water that currently is discharged to the Monterey Bay National Marine Sanctuary as a source of supply for its potential project. This Memorandum of Agreement provides an assurance to the district that secondary or tertiary treated effluent would be available should they ultimately choose to pursue such a project.

DISCUSSION: The quantity of water that would be dedicated to a project that the Soquel Creek Water District might ultimately pursue is 1500 acre feet per year or about 1.3 million gallons per day. Should the District choose to develop a supply of water for groundwater replenishment from this source, the volume of remaining effluent produced by the WWTF would be adequate to meet any future need that Santa Cruz might have for the development of a supplemental water supply, should such a supply be needed as part of the City's plan to improve the reliability of Santa Cruz's water supply.

The provisions of the proposed MOU do not obligate the City to make any financial commitment to the District's project and would not actually be activated unless and until the District has fully complied with the California Environmental Quality Act and has made a decision to pursue one of the Pure Water Soquel project options it is evaluating.

FISCAL IMPACT: None.

PROPOSED MOTION: Move to recommend that the City Council approve the Memorandum of Agreement between the City of Santa Cruz and Soquel Creek Water District regarding treated wastewater effluent for use in a potential future Pure Water Soquel Project.

ATTACHMENTS:
Memorandum of Agreement between the City of Santa Cruz and Soquel Creek Water District

MEMORANDUM OF UNDERSTANDING BETWEEN SOQUEL CREEK WATER DISTRICT AND CITY OF SANTA CRUZ MEMORALIZING PRELIMINARY TERMS RELATED TO "PURE WATER SOQUEL", AN ADVANCED PURIFIED GROUNDWATER REPLENISHMENT PROJECT

This Memorandum of Understanding ("MOU") is made and entered into on this ___ day of _____, 2017 (the "Effective Date") by and between the Soquel Creek Water District ("District"), a special district organized and existing under the County Water District Law (Cal. Water Code §30000, et seq.) and the City of Santa Cruz ("City"), a charter law city organized and existing under Article XI of the Constitution of the State of California and the City Charter (collectively the "Parties"), and provides as follows:

RECITALS

WHEREAS, City owns and operates a regional wastewater treatment facility ("WWTF") that provides wastewater treatment and disposal services to the City of Santa Cruz, Santa Cruz County Sanitation District (including Live Oak, Capitola and Aptos areas) and disposal services to the City of Scotts Valley; and

WHEREAS, wastewater generated by development in the service area of the District is conveyed through facilities owned and operated by the Santa Cruz County Sanitation District to the City of Santa Cruz WWTF for treatment and disposal, making the City's wastewater facility a regional asset for the treatment of wastewater; and

WHEREAS, the Santa Cruz Mid-County Groundwater Basin (the "Basin") is currently the sole source of potable water supply for the water service area of the District; and

WHEREAS, the Basin has been designated by the State of California as being in a state of critical overdraft and threatened by seawater intrusion that will, if not promptly and effectively addressed, cause irreparable damage to the Basin making it unsuitable for continued use as a source of potable water; and

WHEREAS, the District has prepared and is implementing a Community Water Plan that includes a range of possible approaches that would, if implemented, provide the means of reducing or eliminating the threat of seawater intrusion and contributing to the restoration of the Basin to sustainable levels, as required by the state's 2014 Sustainable Groundwater Management Act; and

WHEREAS, a key conclusion from the Community Water Plan is that, in addition to ongoing water conservation and proactive groundwater management, a supplemental source of supply

is required to eliminate the threat of seawater intrusion and begin the longer term process of restoring the Basin to sustainable levels; and

WHEREAS, in accordance with the California Environmental Quality Act ("CEQA"), the Community Water Plan identified options the District intends to evaluate, including at least the following range of potential water supply alternatives: 1) No Action; 2) Water Transfers and Exchanges using treated, available surface water from City of Santa Cruz's sources; 3) Desalination based on the proposed Deep Water Desal project that would be located in Moss Landing; and 4) Advanced Purified Recycled Water Facility (APWF) for groundwater replenishment; and

WHEREAS, in November of 2016, the District issued a Notice of Preparation/Initial Study ("NOP/IS") in accordance with CEQA and began preparing an Environmental Impact Report ("EIR") for "Pure Water Soquel," an advanced purified groundwater replenishment project (the "Project") to utilize advanced treated wastewater to supplement natural recharge of the Basin with purified water, and thereby to increase the sustainability of the District's groundwater supply, reduce overdraft conditions in the Basin, protect against seawater intrusion, and promote beneficial reuse by reducing discharge of treated wastewater into the Monterey Bay National Marine Sanctuary; and

WHEREAS, as described in the NOP/IS, the District is considering three options and two potential locations for treatment system components of the Project, including: **Option 1:** upgrading a portion of the WWTF to provide on-site tertiary treatment, coupled with developing an advanced water purification facility ("AWPF") on District property located at the Capitola Avenue-Soquel Drive intersection (the "West Annex Site") for advanced purification of the tertiary effluent; **Option 2:** developing an AWPF at the West Annex Site for advanced purification of WWTF secondary effluent; and **Option 3:** development of a membrane bioreactor ("MBR") plus AWPF at the West Annex Site for the treatment of raw wastewater from the Santa Cruz County Sanitation District; and

WHEREAS, at its regular meetings of January 17 and March 3, 2017, the District's Board of Directors directed staff to evaluate other potential site locations for the AWPF, including the potential construction of such a facility on the City's WWTF site; and

WHEREAS, at its regular meeting of January 17, 2017, the District's Board of Directors expressed concerns about siting challenges associated with Option 3, such as the cost of such a facility, and potential environmental impacts that could be avoided if other options were pursued;

WHEREAS, to eliminate Option 3 as described above from further analysis due to potential siting challenges, the District requires certain assurances from the City that wastewater effluent

from the City's WWTF will be available for its project, should it choose to pursue an advanced water purification facility option, and that such assurances would include both clarity about the available volumes of secondary, tertiary, or advanced purified recycled water that it could count on receiving from the City of Santa Cruz's WWTF, and a commitment from the City that such volumes of secondary or tertiary treated recycled water would be available over at least the reasonable life of any advanced water purification facility the District might choose to pursue following completing of its CEQA process; and

WHEREAS, the City acknowledges the legitimacy of the District's need for clarity and certainty regarding the timeframe of source availability as well as the volumes of effluent that it could count on under the various advanced purified recycled water options it is evaluating in its CEQA process; and

WHEREAS, due to the lack of other wastewater treatment facilities in the region, which makes the City's facility the sole source of treated wastewater effluent that would be suitable for the District's use in an advanced water purification project, the City believes it is appropriate and necessary that the City should provide reasonable assurances to the District regarding the availability of a source of supply for any advanced water purification recycled project it may choose to pursue; and

WHEREAS, nothing about any assurances made by the City to provide clarity and certainty regarding the timeframe of source water availability as well as the volumes of treated effluent that would be available to the District, should it pursue one of the above-referenced options following completion of its environmental review process, in any way affects the City's commitment to implementing its Water Supply Advisory Committee's recommendations, including recommendations regarding the preference for using winter river flows to develop a supplemental source of supply for Santa Cruz that would increase water supply reliability and reduce vulnerability to drought in the City's water service area.

NOW THEREFORE, the Parties agree as follows:

1. Definitions: In addition to the terms defined above, capitalized terms used in this MOU have the meanings specified in this section:
    a. "AWPF" shall mean an advanced water purification facility capable of treating secondary or tertiary treated effluent to advanced purified water standards suitable for groundwater replenishment via direct injection/recharge.
    b. "Capitola" shall mean the City of Capitola.
    c. "County" shall mean the County of Santa Cruz.
    d. "MGD" shall mean million gallons per day.

e. “Purified Water” shall mean water that has undergone advanced water purification treatment for beneficial reuse (groundwater recharge).
f. “RO Concentrate” shall mean concentrate produced from the advanced water purification (reverse osmosis) process.
g. “SCCSD” shall mean the Santa Cruz County Sanitation District.
h. “Secondary Effluent” shall mean existing wastewater effluent from the WWTF that been treated to remove settable solids and also includes a biological process to remove dissolved and suspended organic compounds.
i. “Tertiary Effluent” shall mean secondary effluent that undergoes additional treatment for removal of organic and inorganic material to produce a higher quality of effluent typically used for water recycling.

2. Subject to full CEQA compliance, and subject to the Districts potential decision to pursue any of the Pure Water Soquel project options, the City would deliver treated effluent to the District of a quantity sufficient to produce 1,500 acre-feet per year (approximately 1.3 million MGD) of advanced treated recycled water for a Pure Water Soquel Project. The Parties also agree to working together to develop and enter into a final agreement on terms and conditions (the “Project Agreement”) including, but not limited to, those issues set forth in Paragraph 4 below.

3. Pending any final approval of the Project Agreement by City and the District, the Parties agree that District shall reimburse City for costs incurred by City in connection with the environmental review, planning, design, permitting and construction of the Project, within thirty (30) days of the City providing District with appropriate documentation of such costs incurred.

4. The Project Agreement shall provide for all of the following, based upon information produced from the Final EIR for the Project:
    a. Determination of the design, location and configuration of secondary or tertiary effluent treatment facilities to be constructed at the WWTP site to serve the Project.
    b. Determination of the design, location and configuration of facilities within the City, unincorporated County and City of Capitola to deliver treated effluent from the WWTF to the AWPF and the return of RO concentrate from the AWPF to the WWTF for possible treatment and disposal at the City’s ocean outfall.
    c. Ownership and operation of various components of the Project facilities.
    d. Selection of process for the construction phase, including development of plans, specification and contract documents and methodologies for construction of Project facilities, including consideration of proceeding with design-build or design-bid-build processes.

e. Preparation and implementation of an Operations Plan that shall serve as the basis for identifying responsible parties for operating costs and operation requirements.
f. Coordination as necessary with the SCCSD in accordance with the requirements of state law, including Water Code Section 13550-13551.
g. Term and termination of the Project Agreement and any extension option periods. At present, it is contemplated that the Project Agreement shall be for a period of thirty-five (35) years from its effective date, with automatic five (5) year extension periods thereafter unless either party gives notice of termination at least twenty-four (24) months in advance of the term or extension period then in effect.
h. Provisions for ownership and/or disposition of Project Facilities upon termination.
i. Provisions for relocation of Project Facilities in connection with future public works projects, including parties responsible for the costs of relocation.
j. Additional terms
    1. Liability/indemnification provisions
    2. Force majeure
    3. Dispute resolution
    4. Attorneys' fees and costs
    5. Remedies for non-performance
    6. Conditions precedent
    7. Assignment
    8. Notice
    9. Governing law/venue
    10. Amendments
    11. Availability of records/audits
    12. Cessation during declared emergency
    13. Relationship of parties
    14. Severability
    15. Waiver
    16. Counterparts
    17. Representations, warranties and covenants

5. The purpose of this MOU is to memorialize preliminary terms between the Parties and provide a general framework for good faith negotiations. All obligations of the Parties under this MOU, including but not limited to the consideration of the Project Agreement and the commitment to deliver treated effluent set forth in Paragraph 2 above, are conditioned upon compliance with CEQA. In no event shall the City or the District be required to implement any provision of this MOU prior to the District's approval of the Project and certification of the EIR, if such actions occur.

IN WITNESS WHEREOF, the Parties, by their duly authorized agents, have executed this MOU on the dates set forth below.

SOQUEL CREEK WATER DISTRICT

By:_____ Dated:_____
Tom LaHue, President

APPROVED AS TO FORM:

_____
Robert E. Bosso, District Counsel

CITY OF SANTA CRUZ

By:_____ Dated:_____
Martín Bernal, City Manager

APPROVED AS TO FORM:

_____
Anthony P. Condotti, City Attorney