Montara Water and Sanitary District
Serving the Community of Montara and Moss Beach

P.O. Box 370131
8888 Cabrillo Hwy
Montara, CA 94037-0131
t: 650.728.3545 • f: 650.728.8556

To sensitively manage the natural resources entrusted to our care, to provide the people of Montara - Moss Beach with reliable, high – quality water, wastewater, and trash disposal at an equitable price, and to ensure the fiscal and environmental vitality of the district for future generations. Be open to providing other services desired by our community.

AGENDA

District Board of Directors

8888 Cabrillo Highway
Montara, California 94037

May 3, 2018 at 7:30 p.m.

CALL TO ORDER
ROLL CALL
PRESIDENT'S STATEMENT
ORAL COMMENTS (Items other than those on the agenda)
PUBLIC HEARING
CONSENT AGENDA

1. Approve Minutes for April 5, 2018.
2. Approve Financial Statements for March 2018.
3. Approve Warrants for May 1, 2018.
4. SAM Flow Report for March 2018.
5. Monthly Review of Current Investment Portfolio.
6. Connection Permit Applications Received.
7. Monthly Water Production Report for March 2018.
8. Rain Report.
9. Solar Energy Report.
10. Monthly Public Agency Retirement Service Report for February 2018.

OLD BUSINESS

NEW BUSINESS

1. Review and Possible Action of Sewer Authority Mid-Coastside Draft 20 Year Capital Improvement Plan.
2. Review and Possible Action Concerning Installation of a New Nitrate Treatment Facility for the Airport Well No. 3.
3. Review and Possible Action Concerning Adoption of Policy for Acquiring Personal Services.
4. Review and Possible Action Concerning Cancellation of Next Regular Scheduled Meetings, May 17, and June 7, 2018 - Consideration of Special Meeting May 31, 2018.

REPORTS

1. Sewer Authority Mid-Coastside Meetings (Boyd)
2. MidCoast Community Council Meeting (Slater-Carter)
3. CSDA Report (Slater-Carter)
4. Attorney's Report (Schricker)
5. Directors' Reports
6. General Manager's Report (Heldmaier)

FUTURE AGENDAS

ADJOURNMENT

CONVENE IN CLOSED SESSION

CONFERENCE WITH LEGAL COUNSEL -- EXISTING LITIGATION
(Government Code §54956.9(d)(1))

Case Names: *City of Half Moon Bay v. Granada Community Services District, et al.*
(San Mateo County Super, Crt. No. 17 CIV 03092)

Regional Water Quality Control Board v. Sewer Authority Mid-Coastside
(ACL Complaint No. R2-2017-1024)

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
(Government Code §54956.9(d)(2))
Significant Exposure to Litigation:
Number of cases:1

REPORT OF ACTION TAKEN IN CLOSED SESSION, IF ANY
ADJOURNMENT

MONTARA WATER & SANITARY DISTRICT

BOARD OF DIRECTORS MEETING
April 5, 2018

MINUTES

REGULAR SESSION BEGAN AT 7:30 p.m.
CALL TO ORDER
ROLL CALL

Directors Present:	Boyd, Slater-Carter, Wilson, Harvey and Huber
Directors Absent:	None
Staff Present:	General Manager, Clemens Heldmaier District Clerk, Tracy Beardsley
Others Present:	District Counsel, Christine Fitzgerald District Counsel, David Schricker District Accountant, Peter Medina District Sewer Engineer, Pippin Cavagnaro District Financial Advisor, Alex Handlers General Manager, Beverli Marshall

PRESIDENT'S STATEMENT – None

ORAL COMMENTS -

Clyde Bradshaw, Montara Water and Sanitary District (MWSD) employee, thanked the Board for supporting the MWSD Wellness Program, and updated them on his progress. He lost 35 pounds, works out regularly, and changed his lifestyle. He asked the Board to consider continuing the program beyond September when it is up for review. He also announced that he resigned from MWSD on Monday and accepted another position at the Presidio Trust. He thanked the Board and MWSD

for helping him to develop his skills, expand his knowledge, and contribute towards building his confidence and experience to move forward. He said he will miss MWSD, but remains part of the community, and will come by from time to time.

PUBLIC HEARING – None

CONSENT AGENDA

1. Approve Minutes for March 8, 2018
2. Approve Financial Statements for February 2018
3. Approve Warrants for February 1, 2018
4. SAM Flow Report for February 2018
5. Monthly Review of Current Investment Portfolio
6. Connection Permit Applications Received
7. Monthly Water Production Report for February 2018
8. Rain Report
9. Solar Energy Report
10. Monthly Public Agency Retirement Service Report for January 2018

Director Huber moved to approve the Consent Agenda and Director Slater-Carter seconded the motion.

All Directors were in favor and the motion passed unanimously 5 – 0.

OLD BUSINESS –

Director Wilson announced that it has been requested that the agenda be changed a bit, starting with New Business item 1 and 2 to be heard before Old Business item 1.

1. Review and Possible Action Concerning Draft Sewer Rate Study.

General Manager said that now that the Board has heard two items that directly impacts the sewer funds--the SAM Budget needs and MWSD's own infrastructure needs. They are significant, which necessitates an increase. The last sewer rate study was implemented in 2010, and extended over 8 years rather than 4 years. District Financial Advisor Alex Handlers presented a draft of the sewer rate study at the last Board meeting, received feedback, and is present again with updates based on that feedback.

Director Wilson recommended that District Financial Advisor Handlers present a summary of the changes, rather than going over all the information already covered at the last meeting.

District Financial Advisor Handlers concurred, and said he had updated the financial projections. Here are the differences:

- The level of CIP funding is a little higher, thus the sewer rate increase is a little higher.

- The first draft had 3 versions of cash flow. Version A has a one-time rate spike, Version B is a phase in that fully funds the capital program over the next 5 years and SAMs capital expenses, and Version C in which you don't do everything, but are taking steps in the right direction. And now there is a B+ Version to review also.

District Financial Advisor Handlers: Due to the number of future unknowns, the Board's direction was to go out with a Prop 218 for the first two years of rate increases, and then come back in a few years, re-evaluate, and adjust as needed. The numbers are fairly similar to where they were before. We added a "B+" version. In regards to the new SAM budget presented tonight, although it wasn't factored in, the numbers are very close. I think the total is within about $50,000 dollars to what was incorporated to our financial projections. So they are very similar.

Director Wilson: What do we have to decide tonight?

District Financial Advisor Handlers: The goal is to decide what level of rate increase you want to move forward with the Prop 218 process. The goal is to get out the Prop 218 letter to all the property owners who are the rate payers on the sewer side, and in order to get your rates in place by July 1st, you are going to have to get your Prop 218 letters out with a public hearing on or before the June meeting. We are not sure what level of increase the Board would like to include in that notice.

General Manager Heldmaier indicated that the Board needs to choose the appropriate scenario and he recommended the scenario "B" or "B+." Then the Board needs to direct staff to send the Prop 218 notices to all property owners.

General Manager Heldmaier continued, saying scenario "B" would be a 26% rate increase the first year (2018/19), 24% the next, and 22% and 20%, and scenario "B+" would be a 20% rate increase the first year (2018/19), 18% the next, then 18%, 16%, and a fifth year with 15%.

District Financial Advisor Handlers reminded the Board that they primarily looking at the first two years of rate increases, adopting those at this time, understanding there will very likely have to be additional significant rate increases in the future years. The big picture—the more rate increase now, the less later, the less now, the more later.

Director Huber asked for clarification of the white dotted lines on the Single Family Residential Monthly Sewer Bills 2017/18 Chart.

District Financial Advisor Handlers said that the white dotted lines indicate the minimum charge for agencies that have volumetric rates.

The Directors discussed the advantages of paying up front, rather than deferring the increase, saving money in the long run, or the kinder, gentler approach.

Director Huber: Alex, if we take the "B" vs. "B+," that because we are front loading this, that means we do more projects without the potential of having to finance them, so therefore there is a double benefit to the fact we would have more cash on hand to be able to do projects, and not having to finance them.

District Financial Advisor Handlers said he didn't feel that MWSD would have to finance any of the projects, as MWSD has healthy fund reserves. There are a lot of capital needs, but both scenarios are steps in the right direction. Scenario B will generate more money. By the end of two years, MWSD will be generating approximately $300,000 dollars more per year. However, even with scenario B+ the money will get there. Both plans are taking steps in the right direction.

Director Slater Carter expressed concern about the residents who may not be able to afford this rate increase. She said she is not comfortable supporting scenario B.

Director Harvey suggested a compromise between scenario B and scenario B+, and Director Wilson said that they could do an increase of 23% the first year, and 21% the second year.

District Financial Advisor Handlers said that the difference between the two would be approximately $120 dollars per household annually.

Director Wilson: So if we go in the middle, it will be about $60 dollars between the two. Is that something that we can all support? Cutting it in the middle?

District Financial Advisor Handlers: This is just what is going in the Prop 218 notice, and then it will come back to you on June 7th when you actually have to take action. When you do take action, you can't exceed what is in the Prop 218 notice, but you do have the authority to implement something lower.

Director Harvey made a motion to approve a sewer rate increase of 23% year one and a sewer rate increase of 21% year two, and also approve a Prop 218 notice reflecting these rate increases. Director Boyd seconded the motion.

All Directors were in favor and the motion passed unanimously 5 – 0.

NEW BUSINESS -

1. Review of Sewer Authority Mid-Coastside General and Collections Budgets.

General Manager Heldmaier explained that he requested that this item and the next item under New Business be heard before the sewer rate study, because it will help to illustrate the need for the sewer rate increase.

General Manager Heldmaier announced that during the Sewer Authority Mid-Coast (SAM) March meeting the Board approved two budgets to be sent out to the member agencies-the Collections Budget, which is suggested to increase $129, 483 dollars or 16% over the prior fiscal year and the General Budget, which contains an Infrastructure Division Budget which is largely based on last year's 5 year capital improvement program. SAM is asking for an assessment increase of the General Budget by $913,178 dollars or 18% to a total of $6,063,748 dollars. He recommended that they listen to General Manager of SAM, Beverli Marshall's presentation, ask questions, and review this again during the May 3rd meeting.

General Manager Beverli Marshall announced that this SAM budget has been discussed extensively with the SAM Finance Committee, and the unexpected necessary expenditures this year. And because of that, there was a significant increase in the mid-year budget. They re-evaluated how to handle preventative maintenance and the impact of that is in the proposed budget. It has not been addressed properly in the past, and it needed to be rectified. There is a 14% overall increase in expenditures, due primarily to two additional positions at SAM, additional capital improvement plans which came out of the 5 year infrastructure plan and additional preventative maintenance work. The assessment request however, is an18% increase because they want to start building up their operational reserves, which was drawn down from for the Vallemar section two years ago. That is the JPA budget portion. For the Collections System, the City went through an RFP process, which included a "what if" scenario for Granada and Montara system. She used the same cost methodology for everyone, and looked at the true cost of services for the work SAM does. There are no subsidies from any of the participating member agencies to the other, nor any subsidy from SAM. They are true cost of services for the Collection System. The only thing not included is operating reserve cash flow for the Collection System contract itself.

Director Slater Carter asked about the email sent from Half Moon Bay in reference to conditions for SAM.

General Manager Marshall interjected that it was an email sent by the Public Works Superintendent, which stated that they would support the budget if the following would occur:

- The infrastructure budget would include 1.715 million dollars for projects (already identified in the budget).
- More detail on engineering, consulting, and professional services was needed and how they break out.
- Segment 4 of IPS line and Portola Pump 2 to be re-evaluated and if considered, not until fiscal year 2019/2020.
- Capital project sheets- they want more of the risk factors included in that.
- Begin discussions on the infrastructure portion of the budget earlier than this year. They are in the process of doing a 20 year CIP which will be on the SAM Agenda Monday night (draft).
- They did not like the significant increase this year and requested that SAM make a better effort to hold the increases closer to what the CPI increase year over year would be.

Director Boyd said that there has been a general agreement that there has not been sufficient funding for certain activities and this is a true-up year and they all want to see rates stabilizing around the CPI. However, they haven't been paying enough, things go bad, and they have to fix it, and there is going to be that big spike.

Director Wilson asked if the request for the CPI based rates is going forward or are they trying to go back prior to this bump this year.

General Manager Marshall replied that they are looking at this going forward.

General Manager Heldmaier mentioned that he felt it was a soft formulation and the City would like to see this going forward, but it didn't seem to be a firm condition.

General Manager Marshall said the one issue of concern was with the reserve policies. The City staff representatives are strongly against repaying that reserve nor maintain a reserve and that it should be maintained by the member agencies. Probably the biggest point of contention is the request of $250,000 dollars to start rebuilding a two month reserve.

Director Boyd said that they discussed the difference between reserves for repairs and operational reserves. They were in agreement that having two or three months reserves for operations was a good buffer.

General Manager Marshall said there was still a debate on legal services. She thinks it was approved to pay for everything this year, with exception of the lawsuit. She further indicated that she was not invited to the meetings, and did not know the specifics. There have been many discussion going back and forth about how involved does SAM need to be, when does SAM lawyers need to be involved, and she thought it has not been resolved yet.

General Manager Heldmaier asked about the 2017/2018 fiscal budget with the budget expenditures being approximately $46,000 dollars and they approved the budget amendment. The current estimate for the 2017/2018 year is $98,000 dollars, significantly more, and asked General Manager Marshall to compare what was approved and what was actually spent.

General Manager Marshall said the City and Granada did not approve the additional funding for the legal services for the mid-year budget, although Montara did.

General Manager Heldmaier replied that they received confirmation from General Manager Chuck Duffy that Granada did approve the legal funds. He asked again how this works with SAM's numbers?

General Manager Marshall said that the SAM mid-year budget amendment did not include the additional legal costs. They were waiting until they understood what the City was doing and got clarification from Granada, and they were going to bring it back. She is still waiting to hear what happened at the City Council meeting.

District Council Schricker mentioned that the attorney for SAM stated that his billing for SAM must be reviewed by the Half Moon Bay City attorney, which hasn't happened yet.

Director Wilson said that the governing group consisted of three entities and asked why the City of Half Moon Bay is making that determination for the group. He wanted clarification in this budget what they are approving in the legal section.

General Manager Marshall replied it is everything except for what might be spent for defending SAM for the lawsuit.

Director Huber said there isn't sufficient detail to figure out if an expenditure makes any sense or not.

Director Wilson recommended that since nothing is being approved tonight, that more information/documentation be sent to them for further review.

The Directors thanked General Manager Marshall.

2. Review and Possible Action Concerning Authorization to Award the Contract for the Cabrillo Highway Sewer Improvements Phase 1A Project.

General Manager Heldmaier: We have been anticipating this project for the last four or five years. Pippin has been working on getting the permit from Caltrans and we succeeded last year getting this project together and it went out to bid. The lowest apparent bidder is JMB Construction of South San Francisco with a bid of $1.261 million dollars. He recommended adopting the resolution approving the agreement and entering into the contract for construction of the Cabrillo Highway Sewer Improvements Phase 1A project. He introduced District Sewer Engineer Pippin Cavagnaro to talk about the project and answer questions.

District Sewer Engineer Cavagnaro: We first became aware of stress in the Cabrillo Highway system the year that Clemens was hired at MWSD. George Irving finished a televising project prior to that. There is a unique situation here. There is an extensive pipeline under the Caltrans right-of-way in a longitudinal pathway under the main lane or under the white strip of the bike path area for several thousand feet. The clay pipeline predates the highway being a Caltrans-right-of-way and it has some longitudinal stress cracks which has the potential to collapse and cause catastrophic blockage. In addition, Caltrans did some repaving a few years ago, covering a manhole across from here on 16th Street which was in the travel way and failed to raise it. SAM staff couldn't raise it to clean the pipeline adequately, and in the interim when they were trying to raise it, roots got into the

system and caused an SSO into the creek. There have been issues with the pipe that carries water from Montara basin to SAM's Montara pump station. One of the problems we have with the pipe is that it is fairly shallow. It was built when it was a country lane, the road was regraded, making the pipe more vulnerable. Being such a long pipeline, it has taken the District several years to acquire the funds to do the project and they have been planning a multi-year project to replace it. The biggest point of this project is getting started. The permitting was the slowest part, and getting started on the pipeline is a challenge. We need to deepen the pipe, starting at the beginning, which is here at the property, and lower it where the driveway is, and lower it several feet under 16th Street and extend it a little further off to the shoulder so we can lower it all the way as we need to improve the depth for safety for future construction by Caltrans and improvements capacity. We also got an exception from the Coastal Permit approved for redundancy, so we will be able to able to maintain our old crossing. We can CIPP line it for example, preserve it, and keep it connected for emergency use only. We had three bids, and JMB Construction was the lowest bid. There were two subcontractors that bid on the job and they will be doing the boring and jacking. We also took the opportunity to provide an additional casing at an incremental cost to the project so we can add additional pipe crossing to rehabilitate the water crossing the District has in that location in the future. We discussed the difficulty in getting permission to install the new casing and take advantage of this situation and install two. JMB came in about $150,000-$140,000 dollars under our estimate. We have worked with this contractor before and they have worked at the San Francisco Airport, built pump stations, and I am confident that they have a good excavation crew and will be successful in completing this project.

Director Huber asked how long this will take and how disruptive it will be.

District Sewer Engineer Cavagnaro: This will be moderately disruptive especially to the residents on 16th Street. It will also be challenging for pedestrians walking north and south and we will need to work with the contractor to help them get around the construction area on the East side of the highway. Here at the office they will be working on Corporation Yard Road, so there will be some time when the SAM staff and the contractors will have to coordinate access to the pump station for their routine maintenance.

Director Boyd asked if there will be any open trenching.

District Sewer Engineer Cavagnaro: There will a large pit 12' x 20' and another 12' x 36' roughly 20' deep on the private land here. They will be protected and plated.

Director Boyd also asked if there will be traffic control.

District Sewer Engineer Cavagnaro replied that there will be a full traffic control plan submitted to Caltrans.

Director Boyd asked what level of on-sight oversight we will have as an agency on this project.

District Sewer Engineer Cavagnaro: Something of this magnitude would require pretty strong oversight. Initially to set up the project we are going to provide the construction staking and alignment based on our design as well as working with the contracting foreman in the best ways to dig through some of the concrete structures. SRT will also be involved with the water portion of it to make sure the water is properly pressure tested and capped off for future use.

Director Harvey asked if MWSD has worked with this company before.

District Sewer Engineer Cavagnaro said that they had worked with them with four pump stations. They have a few issues, which will be monitored, but the quality of their work is always on par.

Director Slater Carter asked if there will be an interruption in service.

District Sewer Engineer Cavagnaro confirmed that there will not be any interruption in service except for maybe one tie-in connection. No sewer service disruption.

Director Slater Carter motioned to approve resolution 1632, resolution of the Montara Water and Sanitary District approving the agreement and enter into contract for construction of the Cabrillo Highway Sewer Improvements Phase 1A Project, and authorizing and directing execution of said documents upon receipt of sufficient bonds and insurance required in the contract.

Director Harvey seconded the motion. All the directors were in favor, and it passed unanimously 5 – 0.

3. Review and Possible Action Concerning Mid-Year Budget Review.

General Manager Heldmaier expressed that MWSD has been reviewing their budgets at 6 months for the last three years. He introduced District Accountant Peter Medina to talk about the highlights of the Mid-year Budget Review.

District Accountant Medina: Last month we went over the fiscal year end audited budget versus actual, and the audit was a little delayed. We are about two months after the mid-year, but the numbers shake out. We did some reclassification of accounts, expenses and revenues and MWSD has pretty solid footing on where we stand midway through the fiscal year. The Budget format displays the best way to digest the information and we included Director Slater Carter's recommendation to add the percentage variance. You can see MWSD is about 50% of the way there. And on the Sewer side revenue, we are, for the most part, a little above 50% in most revenue categories. On the expenditure side Operational, it is all over the board, but the highest portion being professional services which reasons you all know—legal costs. Personnel costs are tracking well. Sewer is a bit high because of the staff turnover, and Judy had a large compensation balance paid out. Overtime hours are very low. Both capital

improvements for water and sewer are well below budget. Water was planned--the large project Alta Vista Tank is now put into service and not a lot has happened, except a few spot repairs. Connection fees, Sewer is almost there as far as what was predicted, midway through the year, and water side is a little lower than expected, halfway there. On the expense side, most are below 50% on expenditure categories. From that standpoint, we are tracking very well. Next month we will be presenting our first draft of the budget and I will be working with Clemens and District staff in the next month to hammer out a solid first draft, and tinker from there. My hope is to have it approved in June.

Director Slater Carter: We haven't had a lot of water connections.

District Accountant Medina: This is as of 12/31/ 2017.

Director Wilson asked why there was a discrepancy in the sewer and water connections.

General Manager said that it depended when customer paid for connection. Sometimes it is accounting differences.

General Manager Heldmaier also said that he wanted to give the Board advance notice that the budget will include a new 4th operator. MWSD has run the last 30 years with 3 water operators, and with the acquisition of Pillar Ridge water system, significant actions taken for compliance, and the increase in two new treatment plants, there is a need for another operator. SAM doesn't want to run with only 3 operators, and MWSD has bridged their needs with temporary workers in the past. He announced that MWSD will request funds for a 4th operator position for this coming fiscal year which will mean an increase in personnel costs on the water side.

Director Wilson: Will you be anticipating less use of on-call?

General Manager Heldmaier: There will be less on-call. It's a burden for people with families.

Director Wilson said that was a reasonable request, and he expected to see it in the next budget.

Director Huber: That's also protection on overtime.

General Manager Heldmaier: Overtime will be the same. It is mostly just one operator responding (on-call).

Director Slater Carter: But it will reduce reliance on temporary workers.

General Manager Heldmaier: I will not be as impactful financially because a lot of what our full-time staff is doing is done by our temporary workers right now.

All the Directors thanked District Accountant Medina.

4. Review and Possible Action Concerning Local Agency Formation Commission Special District Member.

Director Slater Carter rescinded her name to be considered as the LAFCo special district member. She talked to Josh Cosgrove and discussed his intent to run again for LAFCo Special District Member. She feels that he is qualified and well supported and recommended the Board to support him.

General Manager Heldmaier clarified that when the elections are up and candidates are determined this item will be reviewed once more and they will review this again at that time. As for today, Director Slater Carter declined the consideration of running for Local Agency Formation Commission Special District member.

5. Review and Possible Action Concerning Cancellation of Next Regular Scheduled Meeting April 19, 2018.

General Manager Heldmaier said there was no immediate need to hold a meeting on April 19th. If something comes up, all Board members will be notified immediately. All Directors were in agreement.

Director Wilson discussed a conflict with the regular June meeting. It was agreed that the next meeting will be May 31, 2018 instead of June 7, 2018.

REPORTS

1. Sewer Authority Mid-Coastside Meeting (Boyd) –
Director Boyd noted that they got through the budget discussion and the role in the lawsuit. It was amicable, and progress was made.

2. Mid-Coast Community Council Meeting (Slater-Carter) –
Director Slater Carter said they are at the 10% design stage on the roundabout at Cypress Avenue and Highway One. The staff report is on the website. Upcoming projects for Coastside: Hyatt Hotel with 141 rooms in Half Moon Bay, Dunes Beach Hotel, Surf Beach RV Park, Half Moon Bay has Pacific Ridge with 63 homes, the Best Western with 46 rooms, a hotel in Montara with 31 units, Mid Pen is doing 71 units across from the Lighthouse called One Sierra, Moss Beach has the Big Wave, Granada has a 3 story Mavericks Apartment building with 12 units, an RV Park at Harbor Village for about 50 units. The concern we have is all the service people needed for these facilities, and there is no place for them to live.

Director Huber also mentioned the RV Project at One and Capistrano.

3. CSDA Report (Slater-Carter) – none

4. Attorney's Report (Schricker) – none

5. Directors Report –
Director Slater Carter announced that she read in ACWA News that Governor Brown wants to put a tax on drinking water. They want Districts with good drinking water to tax users to support the state to take care of Districts that have poor quality drinking water. ACWAs position is that bad water is a social issue created by bad planning and practices. Social issues should be funded from the State general fund and not taxes on the Water Districts.

General Manager Heldmaier: We were approached by ACWA this week with a request to join their efforts to oppose this. We can bring it up at the next meeting…

Director Slater Carter said this was more of a managerial issue…

General Manager Heldmaier: We would like to join their efforts, and send a letter.

Director Slater Carter: If they need someone to go to speak, I will be happy to go to Sacramento to speak on this. We need to stay on top of this one.

6. General Manager's Report (Heldmaier) – None

FUTURE AGENDAS

ADJOURNMENT

REGULAR MEETING ENDED at 9:40 P.M.

The Board Convened in a Closed Session at 9:50 p.m.

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
(Government Code § 54956.9(d)(1))

Case Names: *City of Half Moon Bay v. Granada Community Services District, et al.* (San Mateo County Super, Crt. No. 17 CIV 03092)

Regional Water Quality Control Board v. Sewer Authority Mid –Coastside (ACL Complaint No. R2-2017-1024)

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
(Government Code § 54956.9(d)(2))
Significant Exposure to Litigation
Number of cases: 1

REPORT OF ACTION TAKEN IN CLOSED SESSION, IF ANY

ADJOURNMENT

Respectfully Submitted,

Signed_____
Secretary

Approved on the 3rd, May 2018

Signed_____
President

MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared For the Meeting Of: May 3, 2018

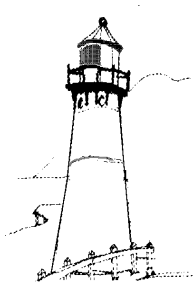
TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager

SUBJECT: Unaudited Financial Statements – Executive Summary

Budget vs. Actual – Sewer July thru March 2018 Variances over $2,000:

- 4610 Property Tax Receipts, $146,630 above Budget – One additional large remittance expected later in the fiscal year.
- 4710 Sewer Service Charges, $340,414 below Budget – Remainder to be made up over the fiscal year.
- **Overall Total Operating Income for the period ending March 31, 2018 was $188,443 below budget. Total revenue received to date is $1,483,410.**
- 5270 Information Systems, $4,020 below Budget – Accounts for Mike Watson's services, activity has been less than expected.
- 5400 Legal, $71,454 above Budget - Increased activity in the current fiscal year.
- 5510 Maintenance, Office $3,717 below Budget – budgeted projects have not occurred.
- 5540 Office Supplies, $2,317 below Budget – Large purchases have been held off due to current inventory surplus.
- 5610 Accounting, $8,800 below Budget - Difference due to timing in the billing.
- 5630 Consulting, $10,152 below Budget - Sewer Rate study to be completed in calendar 2018.
- 5800 Labor, $38,858 above Budget – Major line items to increase are due to the payment of an additional employee during the month of July & August, which included a large vacation pay-out.
- 6170 Claims, Property Damage, $7,500 below Budget –No filed claims in the current fiscal year.
- 6200 Engineering, $21,912 above Budget – Invoices are being reviewed for possible capitalization of expenses.
- 6400 Pumping, $3,098 above Budget - Large PG&E "catch-up" bill received and paid in March.
- 6600 Collection/Transmission, $7,500 below Budget – No activity to date.
- 6910 SAM Collections, $28,178 below Budget – Multiple billing abnormalities are being investigated by District staff.
- 6920 SAM Operations, $183,601 below Budget – Multiple billing abnormalities are being investigated by District staff.



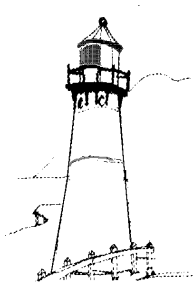
MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared For the Meeting Of: May 3, 2018

TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager

- 6940 SAM Maintenance, Collection Sys, $30,000 below Budget – No activity to date.
- 6950 SAM Maintenance, Pumping, $37,500 below Budget – No activity to date.
- **Overall Total Operating Expenses for the period ending March 31, 2018 were $272,363 below Budget.**
- **Total overall Expenses for the period ending March 31, 2018 were $192,281 below budget. For a net ordinary income of $3,838, budgeted vs. actual. Actual net ordinary loss is $4,910.**
- 7100 Connection Fees, $46,194 above Budget – No new construction connections issued in March. 1 remodel connection issued in March.
- 7200 Interest Income, LAIF, $17,380 above budget – LAIF has been out-performing projections.
- 8000 CIP, $1,032,488 below Budget – One small bill paid to Nute Engineering for the CIP project.
- 9175 Capital Assessment – SAM, $121,345 above Budget – SAM did not make the District aware that they would begin assessing capital assessments during budget prep.
- 9200 I-Bank Loan, $10,327 below Budget – Variance due to timing.



MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared For the Meeting Of: May 3, 2018

TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager

- **Budget vs. Actual – Water July thru March 2018 Variances over $2,000:**

- 4400 Fees, $4,102 above Budget – More fees collected than anticipated.
- 4610 Property tax Receipts, $146,630 above Budget – One additional large remittance expected later in the fiscal year.
- 4740 Testing, Backflow, $5,032 above Budget – quarterly activity up over the fiscal year.
- 4810 Water Sales Domestic, $7,451 above Budget – Water sales are tracking relatively close to budget.
- 4850 Water sales refunds, customers, $2,2500 below budget – No activity to date
- **Overall Total Operating Income for the period ending March 31, 2018 was $167,500 above budget. Total revenue received to date is $1,763,884.**
- 5190 Bank Fees, $3,730 below Budget – Less than anticipated.
- 5240 CDPH Fees, $11,625 below Budget – No Activity to date
- 5250 Conference attendance, $2,641 above budget – Conferences attended by Clemens in October & January**.** Variance will decrease as fiscal year moves forward.
- 5300 Insurance, $2,400 below Budget – Annual premium has not been invoiced and paid.
- 5400 Legal, $39,011 below Budget – Majority of resources have been used on the Sewer side.
- 5510 Maintenance-Office, $3,864 below Budget, - budgeted projects have not occurred.
- 5530 Memberships, $6,798 above Budget, - Historically, membership fees paid on a calendar year basis. Variance will decrease as the fiscal year continues.
- 5540 Office Supplies, $2,317 below Budget – Large purchases have been held off due to current inventory surplus.
- 5610 Accounting, $8,800 below Budget - Difference due to timing in the billing.
- 5630 Consulting, $6,244 below Budget – Website update project in process.
- 6170 Claims, Property Damage, $7,500 below Budget –No activity to date.
- 6185 SCADA Maintenance, $10,904 below Budget – Minimal activity, one bill paid back in December.

MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared For the Meeting Of: May 3, 2018

TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager

- 6195 Education & Training, $2,197 above Budget – Two seminar for training in the month of March.
- 6200 Engineering, $13,945 above Budget – Majority of work is being spent on Water Quality Engineering.
- 6320 Equipment & tools, expensed, $2,097 above Budget – Approximately $1,500 in equipment purchased in February.
- 6400 Pumping, $26,503 below Budget – Large PG&E "catch-up" bill received in March, however it was not large enough to cause an over budged situation.
- 6500 Supply, $13,100 below Budget – No water purchases made in the current calendar year.
- 6600 Collection/Transmission, $29,597 below Budget – Water Main maintenance has been held well below budget.
- 6700 Treatment, $12,460 below Budget – Costs related to chemicals and filtering have been held below historic levels.
- **Overall Total Operating Expenses for the period ending March 31, 2018 were $71,628 below Budget.**
- **Total overall Expenses for the period ending March 31, 2018 were $143,945 below budget. For a net ordinary income of $311,445, budgeted vs. actual. Actual net ordinary income is $782,951.**
- 7100 Connection Fees, $59,125 below Budget – 2 New Constructions, 1 PFP new construction connections issued in March.
- 7600 Bond Revenues, G.O. $187,591 below Budget – additional funds to be received in the following months.
- 8000 CIP, $391,618 below Budget –$2,000 in bills paid in March.
- 9100 Interest Expense G.O. Bonds, $115,433 below Budget – Variance due to timing.
- 9150 SRF Loan, $34,273 below Budget - Variance due to timing.

RECOMMENDATION:
This is for Board information only

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through March 2018

	Sewer		
	Jul '17 - Mar 18	Budget	$ Over Budget
Ordinary Income/Expense			
Income			
4220 · Cell Tower Lease	26,589.15	25,724.97	864.18
4400 · Fees			
4410 · Administrative Fee (New Constr)	3,030.00	2,624.94	405.06
4420 · Administrative Fee (Remodel)	708.00	1,499.94	-791.94
4430 · Inspection Fee (New Constr)	2,862.00	2,624.94	237.06
4440 · Inspection Fee (Remodel)	110.00	2,999.97	-2,889.97
4460 · Remodel Fees	7,738.00	2,999.97	4,738.03
4470 · Other Fees	-339.91		
Total 4400 · Fees	14,108.09	12,749.76	1,358.33
4610 · Property Tax Receipts	264,130.47	117,500.00	146,630.47
4710 · Sewer Service Charges	1,161,964.42	1,502,378.19	-340,413.77
4720 · Sewer Service Refunds, Customer	-2,002.72	-2,999.97	997.25
4760 · Waste Collection Revenues	15,251.72	16,499.97	-1,248.25
4990 · Other Revenue	3,368.37		
Total Income	1,483,409.50	1,671,852.92	-188,443.42
Gross Profit	1,483,409.50	1,671,852.92	-188,443.42
Expense			
5000 · Administrative			
5190 · Bank Fees	5,463.01	4,874.94	588.07
5200 · Board of Directors			
5210 · Board Meetings	1,341.48	2,999.97	-1,658.49
5220 · Director Fees	3,000.00	2,475.00	525.00
Total 5200 · Board of Directors	4,341.48	5,474.97	-1,133.49
5250 · Conference Attendance	3,075.10	1,499.94	1,575.16
5270 · Information Systems	480.00	4,500.00	-4,020.00
5300 · Insurance			
5310 · Fidelity Bond	0.00	374.94	-374.94
5320 · Property & Liability Insurance	2,160.70	1,499.94	660.76
Total 5300 · Insurance	2,160.70	1,874.88	285.82
5350 · LAFCO Assessment	1,601.00	1,499.94	101.06
5400 · Legal			
5420 · Meeting Attendance, Legal	5,813.75	7,124.94	-1,311.19
5430 · General Legal	10,035.00	18,749.97	-8,714.97
5440 · Litigation	81,479.75		
Total 5400 · Legal	97,328.50	25,874.91	71,453.59
5510 · Maintenance, Office	2,283.24	5,999.94	-3,716.70
5540 · Office Supplies	3,683.12	5,999.94	-2,316.82
5550 · Postage	245.95	1,874.97	-1,629.02
5560 · Printing & Publishing	3,027.80	2,250.00	777.80

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through March 2018

	Sewer		
	Jul '17 - Mar 18	Budget	$ Over Budget
5600 · Professional Services			
5610 · Accounting	13,700.00	22,500.00	-8,800.00
5620 · Audit	9,800.00	9,749.97	50.03
5630 · Consulting	10,818.46	20,999.97	-10,181.51
5640 · Data Services	5,850.84	4,500.00	1,350.84
5650 · Labor & HR Support	2,275.50	1,874.97	400.53
5660 · Payroll Services	720.40	712.44	7.96
Total 5600 · Professional Services	43,165.20	60,337.35	-17,172.15
5710 · San Mateo Co. Tax Roll Charges	0.00	1,874.97	-1,874.97
5720 · Telephone & Internet	13,956.74	12,375.00	1,581.74
5730 · Mileage Reimbursement	563.95	1,125.00	-561.05
5740 · Reference Materials	0.00	149.94	-149.94
5790 · Other Adminstrative	435.19		
5800 · Labor			
5810 · CalPERS 457 Deferred Plan	14,603.56	11,583.72	3,019.84
5820 · Employee Benefits	35,414.24	26,726.22	8,688.02
5830 · Disability Insurance	906.88	1,150.47	-243.59
5840 · Payroll Taxes	11,785.64	12,659.22	-873.58
5850 · PARS	12,270.35	10,545.75	1,724.60
5900 · Wages			
5910 · Management	89,782.91	77,793.75	11,989.16
5920 · Staff	97,011.05	84,449.25	12,561.80
5930 · Staff Certification	1,350.00	1,350.00	0.00
5940 · Staff Overtime	621.22	1,885.50	-1,264.28
Total 5900 · Wages	188,765.18	165,478.50	23,286.68
5960 · Worker's Comp Insurance	2,091.01	1,835.19	255.82
Total 5800 · Labor	265,836.86	229,979.07	35,857.79
Total 5000 · Administrative	447,647.84	367,565.76	80,082.08
6000 · Operations			
6170 · Claims, Property Damage	0.00	7,499.97	-7,499.97
6195 · Education & Training	627.53	749.97	-122.44
6200 · Engineering			
6210 · Meeting Attendance, Engineering	0.00	1,499.94	-1,499.94
6220 · General Engineering	60,911.56	37,499.94	23,411.62
Total 6200 · Engineering	60,911.56	38,999.88	21,911.68
6320 · Equipment & Tools, Expensed	0.00	749.97	-749.97
6330 · Facilities			
6335 · Alarm Services	3,733.86	4,275.00	-541.14
6337 · Landscaping	1,140.00	1,800.00	-660.00
Total 6330 · Facilities	4,873.86	6,075.00	-1,201.14

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through March 2018

	Sewer		
	Jul '17 - Mar 18	Budget	$ Over Budget
6400 · Pumping			
6410 · Pumping Fuel & Electricity	27,098.17	23,999.94	3,098.23
Total 6400 · Pumping	27,098.17	23,999.94	3,098.23
6600 · Collection/Transmission			
6660 · Maintenance, Collection System	0.00	7,499.97	-7,499.97
Total 6600 · Collection/Transmission	0.00	7,499.97	-7,499.97
6800 · Vehicles			
6810 · Fuel	0.00	599.94	-599.94
6820 · Truck Equipment, Expensed	0.00	119.97	-119.97
6830 · Truck Repairs	0.00	299.97	-299.97
Total 6800 · Vehicles	0.00	1,019.88	-1,019.88
6900 · Sewer Authority Midcoastside			
6910 · SAM Collections	186,272.00	214,450.47	-28,178.47
6920 · SAM Operations	760,888.50	944,489.97	-183,601.47
6940 · SAM Maintenance, Collection Sys	0.00	29,999.97	-29,999.97
6950 · SAM Maintenance, Pumping	0.00	37,499.94	-37,499.94
Total 6900 · Sewer Authority Midcoastside	947,160.50	1,226,440.35	-279,279.85
Total 6000 · Operations	1,040,671.62	1,313,034.93	-272,363.31
Total Expense	1,488,319.46	1,680,600.69	-192,281.23
Net Ordinary Income	-4,909.96	-8,747.77	3,837.81
Other Income/Expense			
Other Income			
7000 · Capital Account Revenues			
7100 · Connection Fees			
7110 · Connection Fees (New Constr)	164,853.00	108,432.00	56,421.00
7120 · Connection Fees (Remodel)	27,272.50	37,499.94	-10,227.44
Total 7100 · Connection Fees	192,125.50	145,931.94	46,193.56
7200 · Interest Income - LAIF	24,880.49	7,500.00	17,380.49
Total 7000 · Capital Account Revenues	217,005.99	153,431.94	63,574.05
Total Other Income	217,005.99	153,431.94	63,574.05
Other Expense			
8000 · Capital Improvement Program			
8075 · Sewer	197,512.18	1,229,999.94	-1,032,487.76
Total 8000 · Capital Improvement Program	197,512.18	1,229,999.94	-1,032,487.76

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through March 2018

	Sewer		
	Jul '17 - Mar 18	Budget	$ Over Budget
9000 · Capital Account Expenses			
9125 · PNC Equipment Lease Interest	13,052.67	13,709.97	-657.30
9175 · Capital Assessment - SAM	121,345.00		
9200 · I-Bank Loan	14,027.24	24,354.00	-10,326.76
Total 9000 · Capital Account Expenses	148,424.91	38,063.97	110,360.94
Total Other Expense	345,937.09	1,268,063.91	-922,126.82
Net Other Income	-128,931.10	-1,114,631.97	985,700.87
Net Income	**-133,841.06**	**-1,123,379.74**	**989,538.68**

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through March 2018

	Water		
	Jul '17 - Mar 18	Budget	$ Over Budget
Ordinary Income/Expense			
Income			
4220 · Cell Tower Lease	26,589.24	25,724.97	864.27
4400 · Fees			
4410 · Administrative Fee (New Constr)	4,040.00	4,124.97	-84.97
4420 · Administrative Fee (Remodel)	1,679.00	675.00	1,004.00
4430 · Inspection Fee (New Constr)	3,816.00	3,749.94	66.06
4440 · Inspection Fee (Remodel)	1,908.00	487.44	1,420.56
4460 · Remodel Fees	990.92		
4470 · Other Fees	705.47		
Total 4400 · Fees	13,139.39	9,037.35	4,102.04
4610 · Property Tax Receipts	264,130.45	117,500.00	146,630.45
4740 · Testing, Backflow	14,782.00	9,749.97	5,032.03
4810 · Water Sales, Domestic	1,444,073.13	1,436,621.94	7,451.19
4850 · Water Sales Refunds, Customer	0.00	-2,250.00	2,250.00
4990 · Other Revenue	1,169.97		
Total Income	1,763,884.18	1,596,384.23	167,499.95
Gross Profit	1,763,884.18	1,596,384.23	167,499.95
Expense			
5000 · Administrative			
5190 · Bank Fees	1,520.17	5,249.97	-3,729.80
5200 · Board of Directors			
5210 · Board Meetings	4,063.62	2,999.97	1,063.65
5220 · Director Fees	3,000.00	2,475.00	525.00
Total 5200 · Board of Directors	7,063.62	5,474.97	1,588.65
5240 · CDPH Fees	0.00	11,624.94	-11,624.94
5250 · Conference Attendance	5,640.77	2,999.97	2,640.80
5270 · Information Systems	480.00	2,250.00	-1,770.00
5300 · Insurance			
5310 · Fidelity Bond	0.00	374.94	-374.94
5320 · Property & Liability Insurance	0.00	2,025.00	-2,025.00
Total 5300 · Insurance	0.00	2,399.94	-2,399.94
5350 · LAFCO Assessment	2,208.00	1,874.97	333.03
5400 · Legal			
5420 · Meeting Attendance, Legal	2,711.25	6,374.97	-3,663.72
5430 · General Legal	9,652.50	45,000.00	-35,347.50
Total 5400 · Legal	12,363.75	51,374.97	-39,011.22

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through March 2018

	Water		
	Jul '17 - Mar 18	Budget	$ Over Budget
5510 · Maintenance, Office	2,136.07	5,999.94	-3,863.87
5530 · Memberships	20,298.20	13,500.00	6,798.20
5540 · Office Supplies	3,683.07	5,999.94	-2,316.87
5550 · Postage	4,479.84	5,625.00	-1,145.16
5560 · Printing & Publishing	383.14	1,499.94	-1,116.80
5600 · Professional Services			
5610 · Accounting	13,700.00	22,500.00	-8,800.00
5620 · Audit	9,800.00	9,749.97	50.03
5630 · Consulting	12,506.40	18,749.97	-6,243.57
5650 · Labor & HR Support	2,275.50	1,687.50	588.00
5660 · Payroll Services	720.36	712.44	7.92
Total 5600 · Professional Services	39,002.26	53,399.88	-14,397.62
5720 · Telephone & Internet	16,222.68	16,785.00	-562.32
5730 · Mileage Reimbursement	563.95	1,499.94	-935.99
5740 · Reference Materials	0.00	599.94	-599.94
5790 · Other Adminstrative	615.08		
5800 · Labor			
5810 · CalPERS 457 Deferred Plan	28,245.17	26,634.69	1,610.48
5820 · Employee Benefits	62,019.03	65,142.00	-3,122.97
5830 · Disability Insurance	2,244.08	2,727.72	-483.64
5840 · Payroll Taxes	29,340.77	31,720.50	-2,379.73
5850 · PARS	22,337.01	21,114.00	1,223.01
5900 · Wages			
5910 · Management	89,782.80	77,793.75	11,989.05
5920 · Staff	271,452.37	266,067.72	5,384.65
5930 · Staff Certification	7,946.20	6,750.00	1,196.20
5940 · Staff Overtime	31,646.92	41,873.22	-10,226.30
5950 · Staff Standby	18,765.88	19,460.25	-694.37
Total 5900 · Wages	419,594.17	411,944.94	7,649.23
5960 · Worker's Comp Insurance	9,646.43	14,960.97	-5,314.54
Total 5800 · Labor	573,426.66	574,244.82	-818.16
Total 5000 · Administrative	690,087.26	762,404.13	-72,316.87
6000 · Operations			
6160 · Backflow Prevention	473.48	749.97	-276.49
6170 · Claims, Property Damage	0.00	7,499.97	-7,499.97
6180 · Communications			
6185 · SCADA Maintenance	4,095.74	14,999.94	-10,904.20
6180 · Communications - Other	3,638.02		
Total 6180 · Communications	7,733.76	14,999.94	-7,266.18
6195 · Education & Training	7,446.88	5,249.97	2,196.91

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through March 2018

	Water		
	Jul '17 - Mar 18	Budget	$ Over Budget
6200 · Engineering			
6210 · Meeting Attendance, Engineering	15.50	1,499.94	-1,484.44
6220 · General Engineering	11,947.10	14,999.94	-3,052.84
6230 · Water Quality Engineering	67,232.43	48,749.94	18,482.49
Total 6200 · Engineering	79,195.03	65,249.82	13,945.21
6320 · Equipment & Tools, Expensed	5,847.03	3,749.94	2,097.09
6330 · Facilities			
6335 · Alarm Services	433.56	599.94	-166.38
6337 · Landscaping	2,677.02	4,500.00	-1,822.98
Total 6330 · Facilities	3,110.58	5,099.94	-1,989.36
6370 · Lab Supplies & Equipment	1,672.26	749.97	922.29
6380 · Meter Reading	21.25		
6400 · Pumping			
6410 · Pumping Fuel & Electricity	47,168.94	67,500.00	-20,331.06
6420 · Pumping Maintenance, Generators	6,604.08	7,499.97	-895.89
6430 · Pumping Maintenance, General	1,263.19	5,249.97	-3,986.78
6440 · Pumping Equipment, Expensed	210.32	1,499.94	-1,289.62
Total 6400 · Pumping	55,246.53	81,749.88	-26,503.35
6500 · Supply			
6510 · Maintenance, Raw Water Mains	1,463.25	1,499.94	-36.69
6520 · Maintenance, Wells	5,354.62	7,499.97	-2,145.35
6530 · Water Purchases	19,081.70	29,999.97	-10,918.27
Total 6500 · Supply	25,899.57	38,999.88	-13,100.31
6600 · Collection/Transmission			
6610 · Hydrants	375.29	749.97	-374.68
6620 · Maintenance, Water Mains	26,327.62	41,249.97	-14,922.35
6630 · Maintenance, Water Svc Lines	11,658.20	18,749.97	-7,091.77
6640 · Maintenance, Tanks	556.54	749.97	-193.43
6650 · Maint., Distribution General	1,247.83	7,499.97	-6,252.14
6670 · Meters	1,079.97	1,874.97	-795.00
6600 · Collection/Transmission - Other	32.60		
Total 6600 · Collection/Transmission	41,278.05	70,874.82	-29,596.77
6700 · Treatment			
6710 · Chemicals & Filtering	5,813.32	22,500.00	-16,686.68
6720 · Maintenance, Treatment Equip.	2,584.72	2,999.97	-415.25
6730 · Treatment Analysis	27,142.37	22,500.00	4,642.37
Total 6700 · Treatment	35,540.41	47,999.97	-12,459.56
6770 · Uniforms	7,310.76	9,000.00	-1,689.24

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through March 2018

	Water		
	Jul '17 - Mar 18	Budget	$ Over Budget
6800 · Vehicles			
6810 · Fuel	4,626.18	5,999.94	-1,373.76
6820 · Truck Equipment, Expensed	6.84	749.97	-743.13
6830 · Truck Repairs	4,470.39	3,749.94	720.45
Total 6800 · Vehicles	9,103.41	10,499.85	-1,396.44
6890 · Other Operations	10,966.94		
Total 6000 · Operations	290,845.94	362,473.92	-71,627.98
Total Expense	980,933.20	1,124,878.05	-143,944.85
Net Ordinary Income	782,950.98	471,506.18	311,444.80
Other Income/Expense			
Other Income			
7000 · Capital Account Revenues			
7100 · Connection Fees			
7110 · Connection Fees (New Constr)	78,478.00	129,764.97	-51,286.97
7120 · Connection Fees (Remodel)	10,356.50		
7130 · Conn. Fees, PFP (New Constr)	41,805.07	59,999.94	-18,194.87
Total 7100 · Connection Fees	130,639.57	189,764.91	-59,125.34
7600 · Bond Revenues, G.O.	675,235.95	862,826.94	-187,590.99
Total 7000 · Capital Account Revenues	805,875.52	1,052,591.85	-246,716.33
Total Other Income	805,875.52	1,052,591.85	-246,716.33
Other Expense			
8000 · Capital Improvement Program			
8100 · Water	143,507.02	535,124.97	-391,617.95
Total 8000 · Capital Improvement Program	143,507.02	535,124.97	-391,617.95
9000 · Capital Account Expenses			
9100 · Interest Expense - GO Bonds	158,544.96	273,978.00	-115,433.04
9125 · PNC Equipment Lease Interest	13,052.73	13,709.97	-657.24
9150 · SRF Loan	0.00	34,273.00	-34,273.00
9210 · Conservation Program/Rebates	1,400.00	374.94	1,025.06
Total 9000 · Capital Account Expenses	172,997.69	322,335.91	-149,338.22
Total Other Expense	316,504.71	857,460.88	-540,956.17
Net Other Income	489,370.81	195,130.97	294,239.84
Net Income	**1,272,321.79**	**666,637.15**	**605,684.64**

Montara Water & Sanitary District
Funds Balance Sheet
As of March 31, 2018

	Sewer	Water	TOTAL
ASSETS			
Current Assets			
Checking/Savings			
Sewer - Bank Accounts			
Wells Fargo Operating - Sewer	2,798,938.27	0.00	2,798,938.27
LAIF Investment Fund			
Capital Reserve	3,916,716.61	0.00	3,916,716.61
Connection Fees Reserve	194,576.00	0.00	194,576.00
Operating Reserve	240,073.00	0.00	240,073.00
Total LAIF Investment Fund	4,351,365.61	0.00	4,351,365.61
Total Sewer - Bank Accounts	7,150,303.88	0.00	7,150,303.88
Water - Bank Accounts			
Wells Fargo Operating - Water	0.00	838,642.45	838,642.45
Capital Reserve	0.00	398,249.00	398,249.00
Operating Reserve	0.00	46,009.00	46,009.00
SRF Reserve	0.00	48,222.00	48,222.00
Restricted Cash			
Acq & Improv Fund	0.00	436.13	436.13
Connection Fees Reserve	0.00	253,020.00	253,020.00
Cost of Issuance	0.00	122.94	122.94
GO Bonds Fund	0.00	993,952.34	993,952.34
Total Restricted Cash	0.00	1,247,531.41	1,247,531.41
Total Water - Bank Accounts	0.00	2,578,653.86	2,578,653.86
Total Checking/Savings	7,150,303.88	2,578,653.86	9,728,957.74
Accounts Receivable			
Sewer - Accounts Receivable			
Accounts Receivable	36,320.34	0.00	36,320.34
Total Sewer - Accounts Receivable	36,320.34	0.00	36,320.34
Water - Accounts Receivable			
Accounts Receivable	0.00	-2,719.65	-2,719.65
Accounts Rec. - Backflow	0.00	14,261.11	14,261.11
Accounts Rec. - Water Residents	0.00	173,520.18	173,520.18
Unbilled Water Receivables	0.00	240,244.44	240,244.44
Total Water - Accounts Receivable	0.00	425,306.08	425,306.08
Total Accounts Receivable	36,320.34	425,306.08	461,626.42
Other Current Assets			
Due from Kathryn Slater-Carter	232.31	382.31	614.62
Maint/Parts Inventory	0.00	42,656.32	42,656.32
Total Other Current Assets	232.31	43,038.63	43,270.94
Total Current Assets	7,186,856.53	3,046,998.57	10,233,855.10
Fixed Assets			
Sewer - Fixed Assets			
General Plant	3,389,801.90	0.00	3,389,801.90
Land	5,000.00	0.00	5,000.00
Other Capital Improv.			
Sewer-Original Cost	685,599.18	0.00	685,599.18
Other Cap. Improv.	2,564,810.39	0.00	2,564,810.39
Total Other Capital Improv.	3,250,409.57	0.00	3,250,409.57

Montara Water & Sanitary District
Funds Balance Sheet
As of March 31, 2018

Seal Cove Collection System	995,505.00	0.00	995,505.00
Sewage Collection Facility			
Collection Facility - Org. Cost	1,349,064.00	0.00	1,349,064.00
Collection Facility - Other	3,991,243.33	0.00	3,991,243.33
Total Sewage Collection Facility	5,340,307.33	0.00	5,340,307.33
Treatment Facility	244,539.84	0.00	244,539.84
Accumulated Depreciation	-7,907,749.00	0.00	-7,907,749.00
Total Sewer - Fixed Assets	5,317,814.64	0.00	5,317,814.64
Water - Fixed Assets			
General Plant	0.00	26,624,584.56	26,624,584.56
Land & Easements	0.00	734,500.00	734,500.00
Surface Water Rights	0.00	300,000.00	300,000.00
Water Meters	0.00	1,058,985.00	1,058,985.00
Fixed Assets - Other	0.00	48,171.78	48,171.78
Accumulated Depreciation	0.00	-9,846,359.00	-9,846,359.00
Total Water - Fixed Assets	0.00	18,919,882.34	18,919,882.34
Total Fixed Assets	5,317,814.64	18,919,882.34	24,237,696.98
Other Assets			
Sewer - Other Assets			
Def'd Amts Related to Pensions	108,836.00	0.00	108,836.00
Due from Water Fund	117,867.09	0.00	117,867.09
Joint Power Authority			
SAM - Orig Collection Facility	981,592.00	0.00	981,592.00
SAM - Expansion	1,705,955.08	0.00	1,705,955.08
Total Joint Power Authority	2,687,547.08	0.00	2,687,547.08
Total Sewer - Other Assets	2,914,250.17	0.00	2,914,250.17
Water - Other Assets			
Def'd Amts Related to Pensions	0.00	204,534.00	204,534.00
Bond Acquisition Cost OID	0.00	52,750.40	52,750.40
Bond Issue Cost	0.00	61,691.45	61,691.45
Total Water - Other Assets	0.00	318,975.85	318,975.85
Total Other Assets	2,914,250.17	318,975.85	3,233,226.02
TOTAL ASSETS	**15,418,921.34**	**22,285,856.76**	**37,704,778.10**
LIABILITIES & EQUITY			
Liabilities			
Current Liabilities			
Accounts Payable			
Accounts Payable - Sewer	975.00	0.00	975.00
Total Accounts Payable	975.00	0.00	975.00
Other Current Liabilities			
Water - Net Pension Liability	0.00	266.00	266.00
Sewer - Net Pension Liability	142.00	0.00	142.00
Sewer - Current Liabilities			
Accrued Payables - Sewer	6,374.00	0.00	6,374.00
Accrued Vacations	6,058.45	0.00	6,058.45
Deposits Payable	28,128.44	0.00	28,128.44
PNC Equip. Loan - S/T	11,940.71	0.00	11,940.71
Total Sewer - Current Liabilities	52,501.60	0.00	52,501.60

Montara Water & Sanitary District
Funds Balance Sheet
As of March 31, 2018

Water - Current Liabilities			
Accrued Payables - Water	0.00	51.11	51.11
Accrued Vacations	0.00	10,779.03	10,779.03
Construction Deposits Payable	0.00	-9,910.00	-9,910.00
Deposits Payable	0.00	60,761.18	60,761.18
PFP Water Deposits	0.00	4,302.50	4,302.50
PNC Equip. Loan - S/T	0.00	11,940.66	11,940.66
SRF Loan Payable X102 - Current	0.00	39,382.25	39,382.25
SRF Loan Payable X109 - Current	0.00	41,367.72	41,367.72
Total Water - Current Liabilities	0.00	158,674.45	158,674.45
Payroll Liabilities			
Employee Benefits Payable	12,499.40	0.00	12,499.40
Total Payroll Liabilities	12,499.40	0.00	12,499.40
Total Other Current Liabilities	65,143.00	158,940.45	224,083.45
Total Current Liabilities	66,118.00	158,940.45	225,058.45
Long Term Liabilities			
Sewer - Long Term Liabilities			
Accrued Vacations	12,201.56	0.00	12,201.56
I-Bank Loan	784,390.61	0.00	784,390.61
PNC Equip. Loan - L/T	593,934.97	0.00	593,934.97
Total Sewer - Long Term Liabilities	1,390,527.14	0.00	1,390,527.14
Water - Long Term Liabilities			
Accrued Vacations	0.00	12,201.57	12,201.57
Deferred on Refunding	0.00	-206,234.00	-206,234.00
Due to Sewer Fund	0.00	117,867.09	117,867.09
GO Bonds - L/T	0.00	10,603,044.74	10,603,044.74
PNC Equip. Loan - L/T	0.00	593,935.01	593,935.01
SRF Loan Payable - X102	0.00	127,373.47	127,373.47
SRF Loan Payable - X109	0.00	3,380,299.53	3,380,299.53
Total Water - Long Term Liabilities	0.00	14,628,487.41	14,628,487.41
Total Long Term Liabilities	1,390,527.14	14,628,487.41	16,019,014.55
Total Liabilities	1,456,645.14	14,787,427.86	16,244,073.00
Equity			
Sewer - Equity Accounts			
Capital Assets Net	3,408,252.20	0.00	3,408,252.20
Fund Balance - Unrestricted	8,646,292.87	0.00	8,646,292.87
Retained Earnings	240,294.81	0.00	240,294.81
Total Sewer - Equity Accounts	12,294,839.88	0.00	12,294,839.88
Water - Equity Accounts			
Capital Assets Net	0.00	2,868,858.70	2,868,858.70
Restricted Debt Service	0.00	1,384,997.90	1,384,997.90
Unrestricted	0.00	-1,562,801.59	-1,562,801.59
Retained Earnings	0.00	-240,294.81	-240,294.81
Total Water - Equity Accounts	0.00	2,450,760.20	2,450,760.20
Equity Adjustment Account	1,801,277.38	3,775,346.91	5,576,624.29
Net Income	-133,841.06	1,272,321.79	1,138,480.73
Total Equity	13,962,276.20	7,498,428.90	21,460,705.10
TOTAL LIABILITIES & EQUITY	**15,418,921.34**	**22,285,856.76**	**37,704,778.10**

Montara Water & Sanitary District
Restricted and Non Restricted Cash Assets
July 2017 through June 2018

Assets and Reserves Information

Year to Date Cash Information	July	August	September	October	November	December	January	February	March	April	May	June	Target Reserves	$ Over/(Under) Targets	% Over/Under Targets
Sewer - Operations															
Wells Fargo Operating - Sewer	2,699,856.60	2,395,438.17	2,175,531.48	1,926,361.64	1,848,777.99	3,127,199.64	2,655,219.72	2,820,627.22	2,798,938.27						
Sewer - Reserve Accounts															
LAIF -															
Capital Reserve	3,886,001.12	3,891,836.12	3,891,836.12	3,891,836.12	3,903,546.01	3,903,546.01	3,916,716.61	3,916,716.61	3,916,716.61				2,679,500.00	1,206,501.12	145%
Connection Fees Reserve	194,576.00	194,576.00	194,576.00	194,576.00	194,576.00	194,576.00	194,576.00	194,576.00	194,576.00				194,576.00	-	100%
Operating Reserve	240,073.00	240,073.00	240,073.00	240,073.00	240,073.00	240,073.00	240,073.00	240,073.00	240,073.00				281,893.00	(41,820.00)	85%
Sub-total	4,320,650.12	4,326,485.12	4,326,485.12	4,326,485.12	4,338,195.01	4,338,195.01	4,351,365.61	4,351,365.61	4,351,365.61	-	-	-			
Water - Operations															
Wells Fargo Operating - Water	736,973.18	748,608.06	762,530.73	775,543.19	789,406.28	801,506.10	814,926.02	838,191.04	838,642.45						
Water - Reserve Accounts															
Wells Fargo Bank-															
Capital Reserve	398,249.00	398,249.00	398,249.00	398,249.00	398,249.00	398,249.00	398,249.00	398,249.00	398,249.00				1,049,567.00	(651,318.00)	38%
Connection Fees Reserve	253,020.00	253,020.00	253,020.00	253,020.00	253,020.00	253,020.00	253,020.00	253,020.00	253,020.00				253,020.00	-	100%
SRF Reserve				48,222.00	48,222.00	48,222.00	48,222.00	48,222.00	48,222.00				48,222.00	-	0%
Operating Reserve	94,231.00	94,231.00	94,231.00	46,009.00	46,009.00	46,009.00	46,009.00	46,009.00	46,009.00				250,573.00	(204,564.00)	38%
Sub-total	745,500.00	745,500.00	745,500.00	745,500.00	745,500.00	745,500.00	745,500.00	745,500.00	745,500.00	-	-	-			
Water - Restricted accounts															
First Republic Bank - Water															
Acquistion & Improvement Fund	436.13	436.13	436.13	436.13	436.13	436.13	436.13	436.13	436.13						
Cost of issuance	122.94	122.94	122.94	122.94	122.94	122.94	122.94	122.94	122.94						
GO Bonds Fund	1,438,990.58	899,200.84	899,949.69	900,952.14	901,679.86	919,505.03	1,483,897.21	908,679.17	993,952.34						
Sub-total	1,439,549.65	899,759.91	900,508.76	901,511.21	902,238.93	920,064.10	1,484,456.28	909,238.24	994,511.41	-	-	-			
Total Cash and equivalents	**9,942,529.55**	**9,115,791.26**	**8,910,556.09**	**8,675,401.16**	**8,624,118.21**	**9,932,464.85**	**10,051,467.63**	**9,664,922.11**	**9,728,957.74**	**-**	**-**	**-**			

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
Ordinary Income/Expense																
Income																
4220 · Cell Tower Lease	2,954.35	2,954.35	2,954.35	2,954.35	2,954.35	2,954.35	2,954.35	2,954.35	2,954.35				26,589.15	28,583.34	-1,994.19	93.02%
4330 · Engineering Review	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00			
4400 · Fees																
4410 · Administrative Fee (New Constr)	505.00	0.00	505.00	0.00	0.00	0.00	1,010.00	505.00	505.00				3,030.00	2,916.68	113.32	103.89%
4420 · Administrative Fee (Remodel)	354.00	354.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				708.00	1,666.68	-958.68	42.48%
4430 · Inspection Fee (New Constr)	477.00	0.00	477.00	0.00	0.00	0.00	954.00	477.00	477.00				2,862.00	2,916.68	-54.68	98.13%
4440 · Inspection Fee (Remodel)	0.00	0.00	0.00	0.00	0.00	110.00	0.00	0.00	0.00				110.00	3,333.34	-3,223.34	3.3%
4460 · Remodel Fees	708.00	0.00	354.00	5,418.00	0.00	0.00	464.00	684.00	110.00				7,738.00	3,333.34	4,404.66	232.14%
4470 · Other Fees	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-339.91	0.00				-339.91			
Total 4400 · Fees	2,044.00	354.00	1,336.00	5,418.00	0.00	110.00	2,428.00	1,326.09	1,092.00				14,108.09	14,166.72	-58.63	99.59%
4610 · Property Tax Receipts	0.00	155.06	0.00	233.52	24,036.56	106,594.70	110,709.24	21,213.08	1,188.31				264,130.47	117,500.00	146,630.47	224.79%
4710 · Sewer Service Charges	0.00	0.00	0.00	0.00	0.00	1,046,119.02	0.00	115,845.40	0.00				1,161,964.42	1,669,309.18	-507,344.76	69.61%
4720 · Sewer Service Refunds, Customer	0.00	0.00	0.00	0.00	0.00	-2,002.72	0.00	0.00	0.00				-2,002.72	-3,333.34	1,330.62	60.08%
4760 · Waste Collection Revenues	984.47	2,604.03	1,058.29	2,455.60	953.94	2,387.50	927.62	2,994.43	885.84				15,251.72	18,333.34	-3,081.62	83.19%
4990 · Other Revenue	3,344.93	6.82	0.00	0.00	7.99	0.00	0.00	8.63	0.00				3,368.37			
Total Income	9,327.75	6,074.26	5,348.64	11,061.47	27,952.84	1,156,162.85	117,019.21	144,341.98	6,120.50				1,483,409.50	1,844,559.24	-361,149.74	80.42%
Gross Profit	9,327.75	6,074.26	5,348.64	11,061.47	27,952.84	1,156,162.85	117,019.21	144,341.98	6,120.50				1,483,409.50	1,844,559.24	-361,149.74	80.42%
Expense																
5000 · Administrative																
5190 · Bank Fees	2,740.81	321.48	333.71	336.04	344.44	327.74	339.57	373.47	345.75				5,463.01	5,416.68	46.33	100.86%
5200 · Board of Directors																
5210 · Board Meetings	0.00	125.00	375.00	0.00	250.00	184.95	156.53	125.00	125.00				1,341.48	3,333.34	-1,991.86	40.24%
5220 · Director Fees	0.00	187.50	0.00	750.00	375.00	187.50	1,312.50	0.00	187.50				3,000.00	2,750.00	250.00	109.09%
5230 · Election Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.0%
Total 5200 · Board of Directors	0.00	312.50	375.00	750.00	625.00	372.45	1,469.03	125.00	312.50				4,341.48	6,083.34	-1,741.86	71.37%
5250 · Conference Attendance	0.00	100.00	997.50	0.00	0.00	787.97	1,189.63	0.00	0.00				3,075.10	1,666.68	1,408.42	184.51%
5270 · Information Systems	0.00	180.00	60.00	0.00	0.00	240.00	0.00	0.00	0.00				480.00	5,000.00	-4,520.00	9.6%
5300 · Insurance																
5310 · Fidelity Bond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	416.68	-416.68	0.0%
5320 · Property & Liability Insurance	0.00	0.00	0.00	2,160.70	0.00	0.00	0.00	0.00	0.00				2,160.70	1,666.68	494.02	129.64%
Total 5300 · Insurance	0.00	0.00	0.00	2,160.70	0.00	0.00	0.00	0.00	0.00				2,160.70	2,083.36	77.34	103.71%
5350 · LAFCO Assessment	0.00	0.00	0.00	0.00	0.00	1,601.00	0.00	0.00	0.00				1,601.00	1,666.68	-65.68	96.06%
5400 · Legal																
5420 · Meeting Attendance, Legal	0.00	845.00	256.25	3,082.50	1,630.00	0.00	0.00	0.00	0.00				5,813.75	7,916.68	-2,102.93	73.44%

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
5430 · General Legal	0.00	3,170.00	62.50	650.00	375.00	3,307.50	2,470.00	0.00	0.00				10,035.00	20,833.34	-10,798.34	48.17%
5440 · Litigation	0.00	8,275.00	32,110.00	13,784.75	3,087.50	5,997.50	8,680.00	9,545.00	0.00				81,479.75			
Total 5400 · Legal	0.00	12,290.00	32,428.75	17,517.25	5,092.50	9,305.00	11,150.00	9,545.00	0.00				97,328.50	28,750.02	68,578.48	338.53%
5510 · Maintenance, Office	0.00	193.50	392.70	160.00	150.00	745.54	321.50	0.00	320.00				2,283.24	6,666.68	-4,383.44	34.25%
5540 · Office Supplies	0.00	845.76	335.56	305.35	282.45	376.90	616.41	112.52	808.17				3,683.12	6,666.68	-2,983.56	55.25%
5550 · Postage	0.00	0.00	229.17	0.00	0.00	-60.71	0.00	0.00	77.49				245.95	2,083.34	-1,837.39	11.81%
5560 · Printing & Publishing	0.00	131.33	31.50	111.19	21.04	1,186.77	1,517.73	0.00	28.24				3,027.80	2,500.00	527.80	121.11%
5600 · Professional Services																
5610 · Accounting	0.00	0.00	4,700.00	4,500.00	1,650.00	1,250.00	1,600.00	0.00	0.00				13,700.00	25,000.00	-11,300.00	54.8%
5620 · Audit	0.00	6,000.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00				9,800.00	10,833.34	-1,033.34	90.46%
5630 · Consulting	0.00	2,828.88	1,565.67	804.00	73.13	3,931.00	813.90	198.75	603.13				10,818.46	23,333.34	-12,514.88	46.37%
5640 · Data Services	0.00	0.00	0.00	5,850.84	0.00	0.00	0.00	0.00	0.00				5,850.84	5,000.00	850.84	117.02%
5650 · Labor & HR Support	0.00	194.50	539.00	569.50	194.50	194.50	194.50	194.50	194.50				2,275.50	2,083.34	192.16	109.22%
5660 · Payroll Services	74.02	72.96	70.84	71.90	71.90	71.90	143.08	71.90	71.90				720.40	791.68	-71.28	91.0%
Total 5600 · Professional Services	74.02	9,096.34	6,875.51	15,596.24	1,989.53	5,447.40	2,751.48	465.15	869.53				43,165.20	67,041.70	-23,876.50	64.39%
5710 · San Mateo Co. Tax Roll Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	2,083.34	-2,083.34	0.0%
5720 · Telephone & Internet	0.00	1,878.29	2,114.58	2,558.86	482.08	1,320.89	4,012.68	139.05	1,450.31				13,956.74	13,750.00	206.74	101.5%
5730 · Mileage Reimbursement	0.00	0.00	0.00	0.00	563.95	0.00	0.00	0.00	0.00				563.95	1,250.00	-686.05	45.12%
5740 · Reference Materials	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	166.68	-166.68	0.0%
5790 · Other Adminstrative	0.00	0.00	316.19	119.00	0.00	0.00	0.00	0.00	0.00				435.19			
5800 · Labor																
5810 · CalPERS 457 Deferred Plan	1,574.10	1,628.46	1,689.14	1,249.87	517.08	650.09	4,821.53	1,202.63	1,270.66				14,603.56	12,870.84	1,732.72	113.46%
5820 · Employee Benefits	6,092.66	0.00	6,778.01	3,653.55	3,653.55	3,809.11	3,809.12	3,809.12	3,809.12				35,414.24	29,695.84	5,718.40	119.26%
5830 · Disability Insurance	0.00	113.36	113.36	226.72	0.00	113.36	226.72	0.00	113.36				906.88	1,278.34	-371.46	70.94%
5840 · Payroll Taxes	1,720.28	1,676.31	935.40	868.62	916.80	842.21	2,032.98	1,359.34	1,433.70				11,785.64	14,065.84	-2,280.20	83.79%
5850 · PARS	1,451.93	1,493.70	1,545.86	1,147.45	1,195.23	1,231.83	1,787.41	1,178.50	1,238.44				12,270.35	11,717.50	552.85	104.72%
5900 · Wages																
5910 · Management	8,125.00	8,125.00	14,687.50	8,622.58	8,872.55	8,706.26	15,881.34	8,381.34	8,381.34				89,782.91	86,437.50	3,345.41	103.87%
5920 · Staff	14,212.21	14,854.60	9,123.82	9,527.76	10,067.76	9,382.69	10,500.84	9,237.61	10,103.76				97,011.05	93,832.50	3,178.55	103.39%
5930 · Staff Certification	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00				1,350.00	1,500.00	-150.00	90.0%
5940 · Staff Overtime	0.00	134.12	169.42	42.36	84.71	42.36	42.36	0.00	105.89				621.22	2,095.00	-1,473.78	29.65%
Total 5900 · Wages	22,487.21	23,263.72	24,130.74	18,342.70	19,175.02	18,281.31	26,574.54	17,768.95	18,740.99				188,765.18	183,865.00	4,900.18	102.67%
5960 · Worker's Comp Insurance	0.00	0.00	0.00	1,114.08	0.00	0.00	976.93	0.00	0.00				2,091.01	2,039.18	51.83	102.54%
Total 5800 · Labor	33,326.18	28,175.55	35,192.51	26,602.99	25,457.68	24,927.91	40,229.23	25,318.54	26,606.27				265,836.86	255,532.54	10,304.32	104.03%
Total 5000 · Administrative	36,141.01	53,524.75	79,682.68	66,217.62	35,008.67	46,578.86	63,597.26	36,078.73	30,818.26				447,647.84	408,407.72	39,240.12	109.61%
6000 · Operations																

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
6170 · Claims, Property Damage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	8,333.34	-8,333.34	0.0%
6195 · Education & Training	0.00	0.00	0.00	28.61	0.00	0.00	598.92	0.00	0.00				627.53	833.34	-205.81	75.3%
6200 · Engineering																
6210 · Meeting Attendance, Engineering	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	1,666.68	-1,666.68	0.0%
6220 · General Engineering	0.00	3,757.50	3,982.50	33,369.50	0.00	6,975.00	6,306.06	0.00	6,521.00				60,911.56	41,666.68	19,244.88	146.19%
Total 6200 · Engineering	0.00	3,757.50	3,982.50	33,369.50	0.00	6,975.00	6,306.06	0.00	6,521.00				60,911.56	43,333.36	17,578.20	140.57%
6320 · Equipment & Tools, Expensed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	833.34	-833.34	0.0%
6330 · Facilities																
6335 · Alarm Services	659.70	518.82	888.60	127.02	0.00	184.80	518.82	391.80	444.30				3,733.86	4,750.00	-1,016.14	78.61%
6337 · Landscaping	0.00	190.00	190.00	190.00	190.00	190.00	0.00	0.00	190.00				1,140.00	2,000.00	-860.00	57.0%
Total 6330 · Facilities	659.70	708.82	1,078.60	317.02	190.00	374.80	518.82	391.80	634.30				4,873.86	6,750.00	-1,876.14	72.21%
6400 · Pumping																
6410 · Pumping Fuel & Electricity	0.00	2,528.80	2,875.13	5,600.25	0.00	5,004.62	2,569.32	0.00	8,520.05				27,098.17	26,666.68	431.49	101.62%
Total 6400 · Pumping	0.00	2,528.80	2,875.13	5,600.25	0.00	5,004.62	2,569.32	0.00	8,520.05				27,098.17	26,666.68	431.49	101.62%
6600 · Collection/Transmission																
6660 · Maintenance, Collection System	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	8,333.34	-8,333.34	0.0%
Total 6600 · Collection/Transmission	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	8,333.34	-8,333.34	0.0%
6800 · Vehicles																
6810 · Fuel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	666.68	-666.68	0.0%
6820 · Truck Equipment, Expensed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	133.34	-133.34	0.0%
6830 · Truck Repairs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	333.34	-333.34	0.0%
Total 6800 · Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	1,133.36	-1,133.36	0.0%
6900 · Sewer Authority Midcoastside																
6910 · SAM Collections	26,800.67	19,767.33	23,284.00	23,284.00	23,284.00	23,284.00	23,284.00	23,284.00	0.00				186,272.00	238,278.34	-52,006.34	78.17%
6920 · SAM Operations	0.00	185,420.50	92,710.25	92,710.25	167,860.25	129,477.00	0.00	92,710.25	0.00				760,888.50	1,049,433.34	-288,544.84	72.51%
6940 · SAM Maintenance, Collection Sys	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	33,333.34	-33,333.34	0.0%
6950 · SAM Maintenance, Pumping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	41,666.68	-41,666.68	0.0%
Total 6900 · Sewer Authority Midcoastside	26,800.67	205,187.83	115,994.25	115,994.25	191,144.25	152,761.00	23,284.00	115,994.25	0.00				947,160.50	1,362,711.70	-415,551.20	69.51%
Total 6000 · Operations	27,460.37	212,182.95	123,930.48	155,309.63	191,334.25	165,115.42	33,277.12	116,386.05	15,675.35				1,040,671.62	1,458,928.46	-418,256.84	71.33%
Total Expense	63,601.38	265,707.70	203,613.16	221,527.25	226,342.92	211,694.28	96,874.38	152,464.78	46,493.61				1,488,319.46	1,867,336.18	-379,016.72	79.7%
Net Ordinary Income	-54,273.63	-259,633.44	-198,264.52	-210,465.78	-198,390.08	944,468.57	20,144.83	-8,122.80	-40,373.11				-4,909.96	-22,776.94	17,866.98	21.56%
Other Income/Expense																

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
Other Income																
7000 · Capital Account Revenues																
7100 · Connection Fees																
7110 · Connection Fees (New Constr)	52,056.00	0.00	49,013.00	0.00	34,883.00	28,901.00	0.00	0.00	0.00				164,853.00	120,480.00	44,373.00	136.83%
7120 · Connection Fees (Remodel)	10,468.50	498.50	3,489.50	220.00	0.00	9,605.00	0.00	2,991.00	0.00				27,272.50	41,666.68	-14,394.18	65.45%
Total 7100 · Connection Fees	62,524.50	498.50	52,502.50	220.00	34,883.00	38,506.00	0.00	2,991.00	0.00				192,125.50	162,146.68	29,978.82	118.49%
7200 · Interest Income - LAIF	0.00	0.00	0.00	11,709.89	0.00	0.00	13,170.60	0.00	0.00				24,880.49	11,250.00	13,630.49	221.16%
Total 7000 · Capital Account Revenues	62,524.50	498.50	52,502.50	11,929.89	34,883.00	38,506.00	13,170.60	2,991.00	0.00				217,005.99	173,396.68	43,609.31	125.15%
Total Other Income	62,524.50	498.50	52,502.50	11,929.89	34,883.00	38,506.00	13,170.60	2,991.00	0.00				217,005.99	173,396.68	43,609.31	125.15%
Other Expense																
8000 · Capital Improvement Program																
8075 · Sewer	0.00	3,275.00	17,815.00	75,482.50	0.00	93,819.18	3,490.00	0.00	3,630.50				197,512.18	1,366,666.68	-1,169,154.50	14.45%
Total 8000 · Capital Improvement Program	0.00	3,275.00	17,815.00	75,482.50	0.00	93,819.18	3,490.00	0.00	3,630.50				197,512.18	1,366,666.68	-1,169,154.50	14.45%
9000 · Capital Account Expenses																
9125 · PNC Equipment Lease Interest	787.85	1,566.77	1,557.19	1,547.60	1,537.98	1,528.34	1,518.68	1,508.99	1,499.27				13,052.67	15,233.34	-2,180.67	85.69%
9175 · Capital Assessment - SAM	0.00	0.00	0.00	0.00	0.00	67,415.00	53,930.00	0.00	0.00				121,345.00	0.00	121,345.00	100.0%
9200 · I-Bank Loan	2,065.29	0.00	0.00	0.00	0.00	0.00	11,961.95	0.00	0.00				14,027.24	24,354.00	-10,326.76	57.6%
Total 9000 · Capital Account Expenses	2,853.14	1,566.77	1,557.19	1,547.60	1,537.98	68,943.34	67,410.63	1,508.99	1,499.27				148,424.91	39,587.34	108,837.57	374.93%
Total Other Expense	2,853.14	4,841.77	19,372.19	77,030.10	1,537.98	162,762.52	70,900.63	1,508.99	5,129.77				345,937.09	1,406,254.02	-1,060,316.93	24.6%
Net Other Income	59,671.36	-4,343.27	33,130.31	-65,100.21	33,345.02	-124,256.52	-57,730.03	1,482.01	-5,129.77				-128,931.10	-1,232,857.34	1,103,926.24	10.46%
Net Income	**5,397.73**	**-263,976.71**	**-165,134.21**	**-275,565.99**	**-165,045.06**	**820,212.05**	**-37,585.20**	**-6,640.79**	**-45,502.88**				**-133,841.06**	**-1,255,634.28**	**1,121,793.22**	**10.66%**

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
Ordinary Income/Expense																
Income																
4220 · Cell Tower Lease	2,954.36	2,954.36	2,954.36	2,954.36	2,954.36	2,954.36	2,954.36	2,954.36	2,954.36				26,589.24	28,583.34	-1,994.10	93.02%
4400 · Fees																
4410 · Administrative Fee (New Constr)	505.00	0.00	505.00	0.00	0.00	505.00	1,010.00	505.00	1,010.00				4,040.00	4,583.34	-543.34	88.15%
4420 · Administrative Fee (Remodel)	0.00	0.00	505.00	0.00	164.00	0.00	505.00	505.00	0.00				1,679.00	750.00	929.00	223.87%
4430 · Inspection Fee (New Constr)	477.00	0.00	477.00	0.00	0.00	477.00	954.00	477.00	954.00				3,816.00	4,166.68	-350.68	91.58%
4440 · Inspection Fee (Remodel)	0.00	0.00	477.00	0.00	477.00	0.00	477.00	477.00	0.00				1,908.00	541.68	1,366.32	352.24%
4460 · Remodel Fees	0.00	0.00	306.75	0.00	354.00	115.47	0.00	0.00	214.70				990.92			
4470 · Other Fees	0.00	0.00	0.00	158.79	786.14	0.00	0.00	-1,488.10	1,248.64				705.47			
Total 4400 · Fees	982.00	0.00	2,270.75	158.79	1,781.14	1,097.47	2,946.00	475.90	3,427.34				13,139.39	10,041.70	3,097.69	130.85%
4610 · Property Tax Receipts	0.00	155.06	0.00	233.52	24,036.56	106,594.69	110,709.23	21,213.08	1,188.31				264,130.45	117,500.00	146,630.45	224.79%
4740 · Testing, Backflow	5,322.00	3,080.00	0.00	0.00	0.00	5,060.00	1,100.00	0.00	220.00				14,782.00	10,833.34	3,948.66	136.45%
4760 · Waste Collection Revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00			
4810 · Water Sales, Domestic	172,926.20	269,602.18	204,168.97	43,850.27	261,884.93	58,824.01	177,216.04	108,880.44	146,720.09				1,444,073.13	1,596,246.68	-152,173.55	90.47%
4850 · Water Sales Refunds, Customer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	-2,500.00	2,500.00	0.0%
4990 · Other Revenue	0.00	286.81	0.00	0.00	7.99	0.00	0.00	875.17	0.00				1,169.97			
Total Income	182,184.56	276,078.41	209,394.08	47,196.94	290,664.98	174,530.53	294,925.63	134,398.95	154,510.10				1,763,884.18	1,760,705.06	3,179.12	100.18%
Gross Profit	182,184.56	276,078.41	209,394.08	47,196.94	290,664.98	174,530.53	294,925.63	134,398.95	154,510.10				1,763,884.18	1,760,705.06	3,179.12	100.18%
Expense																
5000 · Administrative																
5190 · Bank Fees	76.10	126.15	3.43	14.15	111.60	102.50	108.09	0.00	978.15				1,520.17	5,833.34	-4,313.17	26.06%
5200 · Board of Directors																
5210 · Board Meetings	0.00	125.00	375.00	0.00	250.00	2,907.10	156.52	125.00	125.00				4,063.62	3,333.34	730.28	121.91%
5220 · Director Fees	0.00	187.50	0.00	750.00	375.00	187.50	1,312.50	0.00	187.50				3,000.00	2,750.00	250.00	109.09%
5230 · Election Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.0%
Total 5200 · Board of Directors	0.00	312.50	375.00	750.00	625.00	3,094.60	1,469.02	125.00	312.50				7,063.62	6,083.34	980.28	116.11%
5240 · CDPH Fees	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	12,916.68	-12,916.68	0.0%
5250 · Conference Attendance	0.00	100.00	997.50	2,263.75	319.16	631.30	1,249.64	0.00	79.42				5,640.77	3,333.34	2,307.43	169.22%
5270 · Information Systems	0.00	180.00	60.00	0.00	0.00	240.00	0.00	0.00	0.00				480.00	2,500.00	-2,020.00	19.2%
5300 · Insurance																
5310 · Fidelity Bond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	416.68	-416.68	0.0%
5320 · Property & Liability Insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	2,250.00	-2,250.00	0.0%
Total 5300 · Insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	2,666.68	-2,666.68	0.0%
5350 · LAFCO Assessment	0.00	0.00	0.00	0.00	0.00	2,208.00	0.00	0.00	0.00				2,208.00	2,083.34	124.66	105.98%
5400 · Legal																

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
5420 · Meeting Attendance, Legal	0.00	842.50	256.25	767.50	845.00	0.00	0.00	0.00	0.00				2,711.25	7,083.34	-4,372.09	38.28%
5430 · General Legal	0.00	692.50	2,925.00	600.00	912.50	1,555.00	2,967.50	0.00	0.00				9,652.50	50,000.00	-40,347.50	19.31%
Total 5400 · Legal	0.00	1,535.00	3,181.25	1,367.50	1,757.50	1,555.00	2,967.50	0.00	0.00				12,363.75	57,083.34	-44,719.59	21.66%
5510 · Maintenance, Office	0.00	193.50	503.90	160.00	185.98	272.67	321.50	0.00	498.52				2,136.07	6,666.68	-4,530.61	32.04%
5530 · Memberships	0.00	842.70	0.00	172.50	0.00	18,543.00	740.00	0.00	0.00				20,298.20	15,000.00	5,298.20	135.32%
5540 · Office Supplies	0.00	845.75	335.54	305.34	282.43	376.89	616.42	112.53	808.17				3,683.07	6,666.68	-2,983.61	55.25%
5550 · Postage	0.00	499.81	1,035.26	226.35	980.00	-54.12	1,141.42	0.00	651.12				4,479.84	6,250.00	-1,770.16	71.68%
5560 · Printing & Publishing	0.00	131.32	31.50	111.18	21.03	17.14	42.73	0.00	28.24				383.14	1,666.68	-1,283.54	22.99%
5600 · Professional Services																
5610 · Accounting	0.00	0.00	4,700.00	4,500.00	1,650.00	1,250.00	1,600.00	0.00	0.00				13,700.00	25,000.00	-11,300.00	54.8%
5620 · Audit	0.00	6,000.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00				9,800.00	10,833.34	-1,033.34	90.46%
5630 · Consulting	0.00	2,828.87	1,565.67	3,351.97	73.12	3,071.00	813.90	198.75	603.12				12,506.40	20,833.34	-8,326.94	60.03%
5640 · Data Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00			
5650 · Labor & HR Support	0.00	194.50	539.00	569.50	194.50	194.50	194.50	194.50	194.50				2,275.50	1,875.00	400.50	121.36%
5660 · Payroll Services	74.00	72.95	70.84	71.90	71.90	71.90	143.07	71.90	71.90				720.36	791.68	-71.32	90.99%
Total 5600 · Professional Services	74.00	9,096.32	6,875.51	12,293.37	1,989.52	4,587.40	2,751.47	465.15	869.52				39,002.26	59,333.36	-20,331.10	65.73%
5720 · Telephone & Internet	0.00	2,220.11	2,127.92	2,598.80	535.38	1,690.64	5,052.09	139.05	1,858.69				16,222.68	18,650.00	-2,427.32	86.99%
5730 · Mileage Reimbursement	0.00	0.00	0.00	0.00	563.95	0.00	0.00	0.00	0.00				563.95	1,666.68	-1,102.73	33.84%
5740 · Reference Materials	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	666.68	-666.68	0.0%
5790 · Other Adminstrative	0.00	0.00	496.08	119.00	0.00	0.00	0.00	0.00	0.00				615.08			
5800 · Labor																
5810 · CalPERS 457 Deferred Plan	2,732.09	2,911.11	3,307.76	2,872.52	2,186.64	2,206.26	6,461.33	2,709.73	2,857.73				28,245.17	29,594.18	-1,349.01	95.44%
5820 · Employee Benefits	11,334.17	-507.45	6,527.58	7,238.86	7,238.86	7,546.76	8,597.04	6,496.46	7,546.75				62,019.03	72,380.00	-10,360.97	85.69%
5830 · Disability Insurance	0.00	280.51	280.51	561.02	0.00	280.51	561.02	0.00	280.51				2,244.08	3,030.84	-786.76	74.04%
5840 · Payroll Taxes	3,247.71	3,485.55	3,044.82	2,989.17	2,997.94	2,801.71	4,083.52	3,255.19	3,435.16				29,340.77	35,245.00	-5,904.23	83.25%
5850 · PARS	2,196.04	2,401.72	2,665.36	2,329.63	2,377.41	2,433.20	3,103.21	2,322.68	2,507.76				22,337.01	23,460.00	-1,122.99	95.21%
5900 · Wages																
5910 · Management	8,125.00	8,125.00	14,687.50	8,622.57	8,872.53	8,706.24	15,881.32	8,381.32	8,381.32				89,782.80	86,437.50	3,345.30	103.87%
5920 · Staff	29,178.80	32,918.68	29,474.09	31,026.20	30,313.88	28,446.55	31,698.22	27,750.88	30,645.07				271,452.37	295,630.84	-24,178.47	91.82%
5930 · Staff Certification	800.00	825.00	850.00	850.00	911.20	850.00	850.00	850.00	1,160.00				7,946.20	7,500.00	446.20	105.95%
5940 · Staff Overtime	3,512.23	2,934.29	4,674.34	3,482.76	4,237.84	3,354.07	2,825.71	3,683.38	2,942.30				31,646.92	46,525.84	-14,878.92	68.02%
5950 · Staff Standby	2,245.21	2,110.96	2,019.67	2,081.04	2,105.73	2,107.03	2,124.20	1,886.34	2,085.70				18,765.88	21,622.50	-2,856.62	86.79%
Total 5900 · Wages	43,861.24	46,913.93	51,705.60	46,062.57	46,441.18	43,463.89	53,379.45	42,551.92	45,214.39				419,594.17	457,716.68	-38,122.51	91.67%
5960 · Worker's Comp Insurance	0.00	0.00	0.00	4,848.27	0.00	0.00	4,798.16	0.00	0.00				9,646.43	16,623.34	-6,976.91	58.03%
Total 5800 · Labor	63,371.25	55,485.37	67,531.63	66,902.04	61,242.03	58,732.33	80,983.73	57,335.98	61,842.30				573,426.66	638,050.04	-64,623.38	89.87%
Total 5000 · Administrative	63,521.35	71,568.53	83,554.52	87,283.98	68,613.58	91,997.35	97,443.61	58,177.71	67,926.63				690,087.26	847,116.86	-157,029.60	81.46%

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
6000 · Operations																
6160 · Backflow Prevention	-100.00	0.00	0.00	0.00	0.00	113.38	444.95	0.00	15.15				473.48	833.34	-359.86	56.82%
6170 · Claims, Property Damage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	8,333.34	-8,333.34	0.0%
6180 · Communications																
6185 · SCADA Maintenance	0.00	0.00	797.00	0.00	152.71	3,146.03	0.00	0.00	0.00				4,095.74	16,666.68	-12,570.94	24.57%
6180 · Communications - Other	0.00	1,764.83	0.00	0.00	0.00	0.00	25.19	0.00	1,848.00				3,638.02			
Total 6180 · Communications	0.00	1,764.83	797.00	0.00	152.71	3,146.03	25.19	0.00	1,848.00				7,733.76	16,666.68	-8,932.92	46.4%
6195 · Education & Training	0.00	1,420.00	647.50	441.11	531.85	412.50	2,406.42	0.00	1,587.50				7,446.88	5,833.34	1,613.54	127.66%
6200 · Engineering																
6210 · Meeting Attendance, Engineering	0.00	0.00	0.00	0.00	15.50	0.00	0.00	0.00	0.00				15.50	1,666.68	-1,651.18	0.93%
6220 · General Engineering	0.00	1,348.75	0.00	840.00	1,718.75	0.00	4,163.25	0.00	3,876.35				11,947.10	16,666.68	-4,719.58	71.68%
6230 · Water Quality Engineering	0.00	10,722.50	7,445.00	7,143.75	10,007.50	7,370.00	16,733.68	0.00	7,810.00				67,232.43	54,166.68	13,065.75	124.12%
Total 6200 · Engineering	0.00	12,071.25	7,445.00	7,983.75	11,741.75	7,370.00	20,896.93	0.00	11,686.35				79,195.03	72,500.04	6,694.99	109.23%
6320 · Equipment & Tools, Expensed	0.00	278.74	369.46	1,649.39	45.07	411.05	1,457.69	1,525.07	110.56				5,847.03	4,166.68	1,680.35	140.33%
6330 · Facilities																
6335 · Alarm Services	0.00	127.02	0.00	127.02	0.00	0.00	127.02	0.00	52.50				433.56	666.68	-233.12	65.03%
6337 · Landscaping	0.00	420.00	443.47	420.00	553.55	420.00	0.00	0.00	420.00				2,677.02	5,000.00	-2,322.98	53.54%
6330 · Facilities - Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00			
Total 6330 · Facilities	0.00	547.02	443.47	547.02	553.55	420.00	127.02	0.00	472.50				3,110.58	5,666.68	-2,556.10	54.89%
6370 · Lab Supplies & Equipment	0.00	0.00	53.15	225.05	1,143.40	187.67	11.56	0.00	51.43				1,672.26	833.34	838.92	200.67%
6380 · Meter Reading	0.00	0.00	0.00	0.00	0.00	0.00	21.25	0.00	0.00				21.25			
6400 · Pumping																
6410 · Pumping Fuel & Electricity	0.00	5,549.52	5,749.71	8,175.54	2,778.84	7,563.31	5,968.07	1,134.12	10,249.83				47,168.94	75,000.00	-27,831.06	62.89%
6420 · Pumping Maintenance, Generators	0.00	0.00	0.00	4,317.64	0.00	1,044.00	0.00	92.44	1,150.00				6,604.08	8,333.34	-1,729.26	79.25%
6430 · Pumping Maintenance, General	0.00	0.00	0.00	0.00	0.00	1,263.19	0.00	0.00	0.00				1,263.19	5,833.34	-4,570.15	21.66%
6440 · Pumping Equipment, Expensed	0.00	0.00	0.00	0.00	0.00	210.32	0.00	0.00	0.00				210.32	1,666.68	-1,456.36	12.62%
Total 6400 · Pumping	0.00	5,549.52	5,749.71	12,493.18	2,778.84	10,080.82	5,968.07	1,226.56	11,399.83				55,246.53	90,833.36	-35,586.83	60.82%
6500 · Supply																
6510 · Maintenance, Raw Water Mains	0.00	0.00	1,195.59	249.19	0.00	0.00	0.00	18.47	0.00				1,463.25	1,666.68	-203.43	87.79%
6520 · Maintenance, Wells	0.00	72.12	1,963.35	0.00	0.00	0.00	0.00	0.00	3,319.15				5,354.62	8,333.34	-2,978.72	64.26%
6530 · Water Purchases	0.00	0.00	0.00	12,817.37	0.00	6,264.33	0.00	0.00	0.00				19,081.70	33,333.34	-14,251.64	57.25%
Total 6500 · Supply	0.00	72.12	3,158.94	13,066.56	0.00	6,264.33	0.00	18.47	3,319.15				25,899.57	43,333.36	-17,433.79	59.77%
6600 · Collection/Transmission																
6610 · Hydrants	0.00	375.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00				375.29	833.34	-458.05	45.03%
6620 · Maintenance, Water Mains	0.00	0.00	3,068.48	104.20	4,231.33	8,193.80	6,562.56	4,167.25	0.00				26,327.62	45,833.34	-19,505.72	57.44%

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
6630 · Maintenance, Water Svc Lines	0.00	0.00	2,776.91	83.75	7,249.54	1,511.05	0.00	0.00	36.95				11,658.20	20,833.34	-9,175.14	55.96%
6640 · Maintenance, Tanks	0.00	0.00	0.00	35.81	40.73	480.00	0.00	0.00	0.00				556.54	833.34	-276.80	66.78%
6650 · Maint., Distribution General	0.00	0.00	0.00	97.88	0.00	174.95	0.00	0.00	975.00				1,247.83	8,333.34	-7,085.51	14.97%
6670 · Meters	0.00	0.00	1,066.27	0.00	0.00	0.00	13.70	0.00	0.00				1,079.97	2,083.34	-1,003.37	51.84%
6600 · Collection/Transmission - Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.60				32.60			
Total 6600 · Collection/Transmission	0.00	375.29	6,911.66	321.64	11,521.60	10,359.80	6,576.26	4,167.25	1,044.55				41,278.05	78,750.04	-37,471.99	52.42%
6700 · Treatment																
6710 · Chemicals & Filtering	0.00	221.17	1,466.00	652.23	0.00	425.37	443.76	2,358.91	245.88				5,813.32	25,000.00	-19,186.68	23.25%
6720 · Maintenance, Treatment Equip.	0.00	61.89	1,309.14	165.86	448.96	11.56	0.00	325.52	261.79				2,584.72	3,333.34	-748.62	77.54%
6730 · Treatment Analysis	-60.80	1,731.27	8,834.22	1,063.50	1,520.42	2,280.80	6,941.01	374.60	4,457.35				27,142.37	25,000.00	2,142.37	108.57%
Total 6700 · Treatment	-60.80	2,014.33	11,609.36	1,881.59	1,969.38	2,717.73	7,384.77	3,059.03	4,965.02				35,540.41	53,333.34	-17,792.93	66.64%
6770 · Uniforms	0.00	791.31	715.05	831.82	726.36	1,377.43	977.66	824.27	1,066.86				7,310.76	10,000.00	-2,689.24	73.11%
6800 · Vehicles																
6810 · Fuel	0.00	580.23	454.46	616.04	669.53	620.88	1,012.46	0.00	672.58				4,626.18	6,666.68	-2,040.50	69.39%
6820 · Truck Equipment, Expensed	0.00	6.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00				6.84	833.34	-826.50	0.82%
6830 · Truck Repairs	0.00	0.00	988.88	36.74	0.00	591.78	2,852.99	0.00	0.00				4,470.39	4,166.68	303.71	107.29%
Total 6800 · Vehicles	0.00	587.07	1,443.34	652.78	669.53	1,212.66	3,865.45	0.00	672.58				9,103.41	11,666.70	-2,563.29	78.03%
6890 · Other Operations	0.00	0.00	0.00	0.00	0.00	2,614.62	8,243.50	0.00	108.82				10,966.94			
Total 6000 · Operations	-160.80	25,471.48	39,343.64	40,093.89	31,834.04	46,688.02	58,406.72	10,820.65	38,348.30				290,845.94	402,750.24	-111,904.30	72.22%
Total Expense	63,360.55	97,040.01	122,898.16	127,377.87	100,447.62	138,685.37	155,850.33	68,998.36	106,274.93				980,933.20	1,249,867.10	-268,933.90	78.48%
Net Ordinary Income	118,824.01	179,038.40	86,495.92	-80,180.93	190,217.36	35,845.16	139,075.30	65,400.59	48,235.17				782,950.98	510,837.96	272,113.02	153.27%
Other Income/Expense																
Other Income																
7000 · Capital Account Revenues																
7100 · Connection Fees																
7110 · Connection Fees (New Constr)	17,302.00	0.00	0.00	0.00	22,766.00	2,500.00	0.00	0.00	35,910.00				78,478.00	144,183.34	-65,705.34	54.43%
7120 · Connection Fees (Remodel)	0.00	0.00	0.00	0.00	10,356.50	0.00	0.00	0.00	0.00				10,356.50	0.00	10,356.50	100.0%
7130 · Conn. Fees, PFP (New Constr)	0.00	0.00	0.00	0.00	8,528.00	8,528.00	0.00	17,056.00	7,693.07				41,805.07	66,666.68	-24,861.61	62.71%
Total 7100 · Connection Fees	17,302.00	0.00	0.00	0.00	41,650.50	11,028.00	0.00	17,056.00	43,603.07				130,639.57	210,850.02	-80,210.45	61.96%
7600 · Bond Revenues, G.O.	0.00	748.85	0.00	1,002.45	17,378.42	560,562.05	5,004.60	85,273.17	5,266.41				675,235.95	958,696.68	-283,460.73	70.43%
Total 7000 · Capital Account Revenues	17,302.00	748.85	0.00	1,002.45	59,028.92	571,590.05	5,004.60	102,329.17	48,869.48				805,875.52	1,169,546.70	-363,671.18	68.91%
Total Other Income	17,302.00	748.85	0.00	1,002.45	59,028.92	571,590.05	5,004.60	102,329.17	48,869.48				805,875.52	1,169,546.70	-363,671.18	68.91%

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2017 through June 2018

	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	TOTAL Jul '17 - Jun 18	TOTAL Budget	TOTAL $ Over Budget	TOTAL % of Budget
Other Expense																
8000 · Capital Improvement Program																
8075 · Sewer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00			
8100 · Water	0.00	46,398.00	5,988.00	1,200.00	10,376.25	51,758.27	22,985.60	3,052.15	1,748.75				143,507.02	594,583.34	-451,076.32	24.14%
Total 8000 · Capital Improvement Program	0.00	46,398.00	5,988.00	1,200.00	10,376.25	51,758.27	22,985.60	3,052.15	1,748.75				143,507.02	594,583.34	-451,076.32	24.14%
9000 · Capital Account Expenses																
9100 · Interest Expense - GO Bonds	0.00	23,086.56	0.00	0.00	0.00	0.00	0.00	135,458.40	0.00				158,544.96	273,978.00	-115,433.04	57.87%
9125 · PNC Equipment Lease Interest	787.86	1,566.77	1,557.20	1,547.61	1,537.99	1,528.35	1,518.68	1,508.99	1,499.28				13,052.73	15,233.34	-2,180.61	85.69%
9150 · SRF Loan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	34,273.00	-34,273.00	0.0%
9210 · Conservation Program/Rebates	0.00	300.00	100.00	400.00	200.00	200.00	0.00	0.00	200.00				1,400.00	416.68	983.32	335.99%
Total 9000 · Capital Account Expenses	787.86	24,953.33	1,657.20	1,947.61	1,737.99	1,728.35	1,518.68	136,967.39	1,699.28				172,997.69	323,901.02	-150,903.33	53.41%
Total Other Expense	787.86	71,351.33	7,645.20	3,147.61	12,114.24	53,486.62	24,504.28	140,019.54	3,448.03				316,504.71	918,484.36	-601,979.65	34.46%
Net Other Income	16,514.14	-70,602.48	-7,645.20	-2,145.16	46,914.68	518,103.43	-19,499.68	-37,690.37	45,421.45				489,370.81	251,062.34	238,308.47	194.92%
Net Income	**135,338.15**	**108,435.92**	**78,850.72**	**-82,326.09**	**237,132.04**	**553,948.59**	**119,575.62**	**27,710.22**	**93,656.62**				**1,272,321.79**	**761,900.30**	**510,421.49**	**166.99%**

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **May 3, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: SAM Flow Report for March 2018

The Sewer Authority Mid-Coastside (SAM) has prepared the following attached reports for the SAM Board of Directors and the California Regional Water Quality Control Board:

- Flow Report for March 2018.
- Collection System Monthly Overflow Report – March 2018.

The Average Daily Flow for Montara was 0.369 MGD in March 2018. There was no reportable overflow in March in the Montara System. SAM indicates there were 4.04 inches of rain in March 2018.

RECOMMENDATION:

Review and file.

Attachments

Sewer Authority Mid-Coastside

Monthly Collection System Activity/SSO Distribution Report, March 2018

March 2018

Number of S.S.O's

	Total	HMB	GCSD	MWSD	SAM
Roots	0	0	0	0	0
Grease	0	0	0	0	0
Mechanical	0	0	0	0	0
Wet Weather	0	0	0	0	0
Other	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**

12 Month Moving Total

12 month rolling Number

	Total	HMB	GCSD	MWSD	SAM
Roots	0	0	0	0	0
Grease	1	1	0	0	0
Mechanical	4	1	0	0	3
Wet Weather	0	0	0	0	0
Other	3	1	1	1	0
Total	**8**	**3**	**1**	**1**	**3**
		38%	**13%**	**13%**	**38%**

Reportable SSOs

Reportable Number of S.S.O.'s

	Total	HMB	GCSD	MWSD	SAM
March 2018	0	0	0	0	0
12 Month Moving Total	8	3	1	1	3

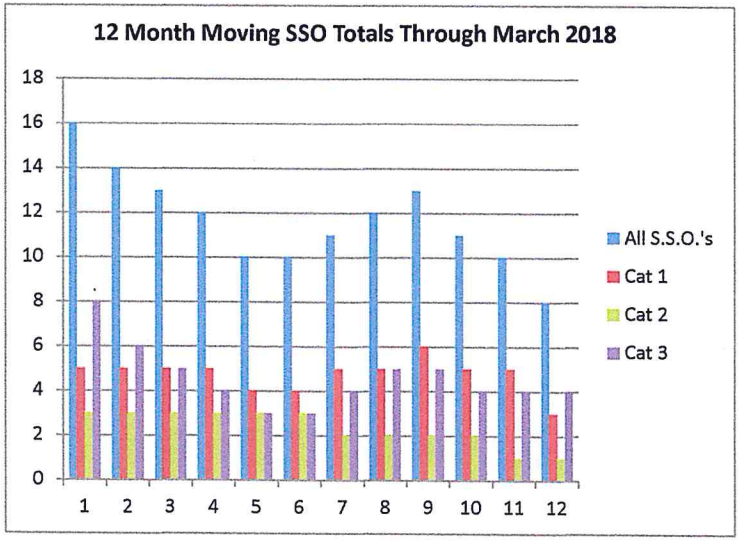
SSOs / Year / 100 Miles

Number of S.S.O.'s /Year/100 Miles

	Total	HMB	GCSD	MWSD	SAM
March 2018	0.0	0.0	0.0	0.0	0.0
12 Month Moving Total	7.7	8.1	3.0	3.7	41.1
Category 1	2.9	5.4	0.0	0.0	13.7
Category 2	1.0	0.0	0.0	0.0	13.7
Category 3	3.8	2.7	3.0	3.7	13.7
Miles of Sewers	104.5	37.0	33.2	27.0	7.3
		35.4%	31.8%	25.8%	7.0%

12 Month Rolling Total Sewer Cleaning Summary

Month	HMB	GCSD	MWSD	Total Feet	Total Miles
Apr - 17	13,101	11,588	11,460	36,149	6.8
May - 17	12,044	12,483	9,547	34,074	6.5
June - 17	18,411	17,317	8,567	44,295	8.4
July - 17	28,276	20,290	6,368	54,934	10.4
Aug - 17	21,769	22,465	20,044	64,278	12.2
Sep - 17	18,710	17,419	11,347	47,476	9.0
Oct - 17	19,336	11,871	14,696	45,903	8.7
Nov - 17	17,854	23,041	9,978	50,873	9.6
Dec - 17	31,661	14,103	9,810	55,574	10.5
Jan - 18	26,653	13,069	11,444	51,166	9.7
Feb - 18	10,011	6,913	11,998	28,922	5.5
Mar - 18	15,529	10,672	9,585	35,786	6.8
Annual ft	233,355	181,231	134,844	549,430	
Annual Mi.	44.2	34.3	25.5		104.1



Attachment C

Attachment A

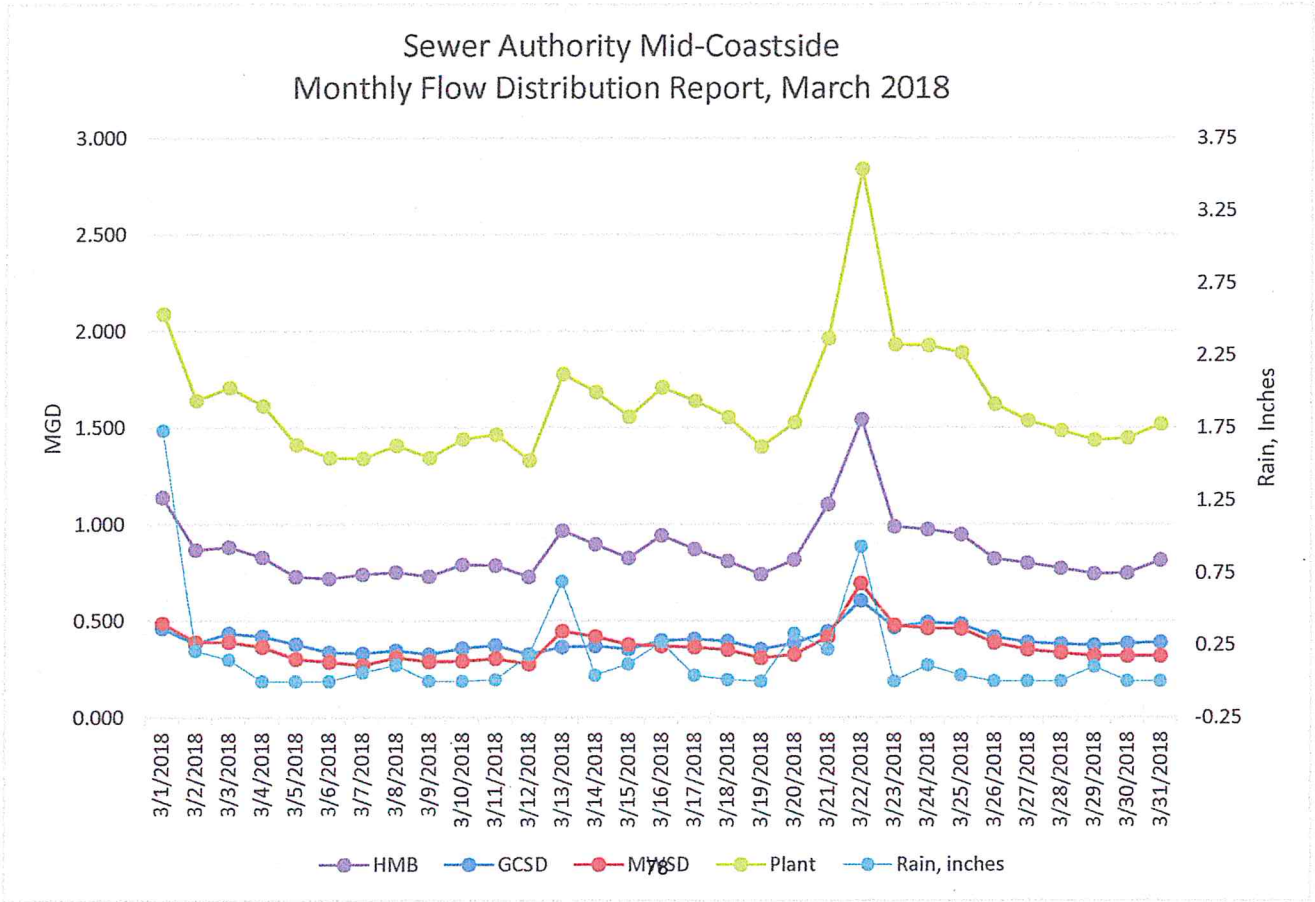
Flow Distribution Report Summary for March 2018

The daily flow report figures for the month of March 2018
have been converted to an Average

Daily Flow (ADF) for each Member Agency.
The results are attached for your review.

The summary of the ADF information is as follows:

	MGD	%
The City of Half Moon Bay	0.865	53.1%
Granada Community Services District	0.397	24.3%
Montara Water and Sanitary District	0.369	22.6%
Total	1.631	100.0%



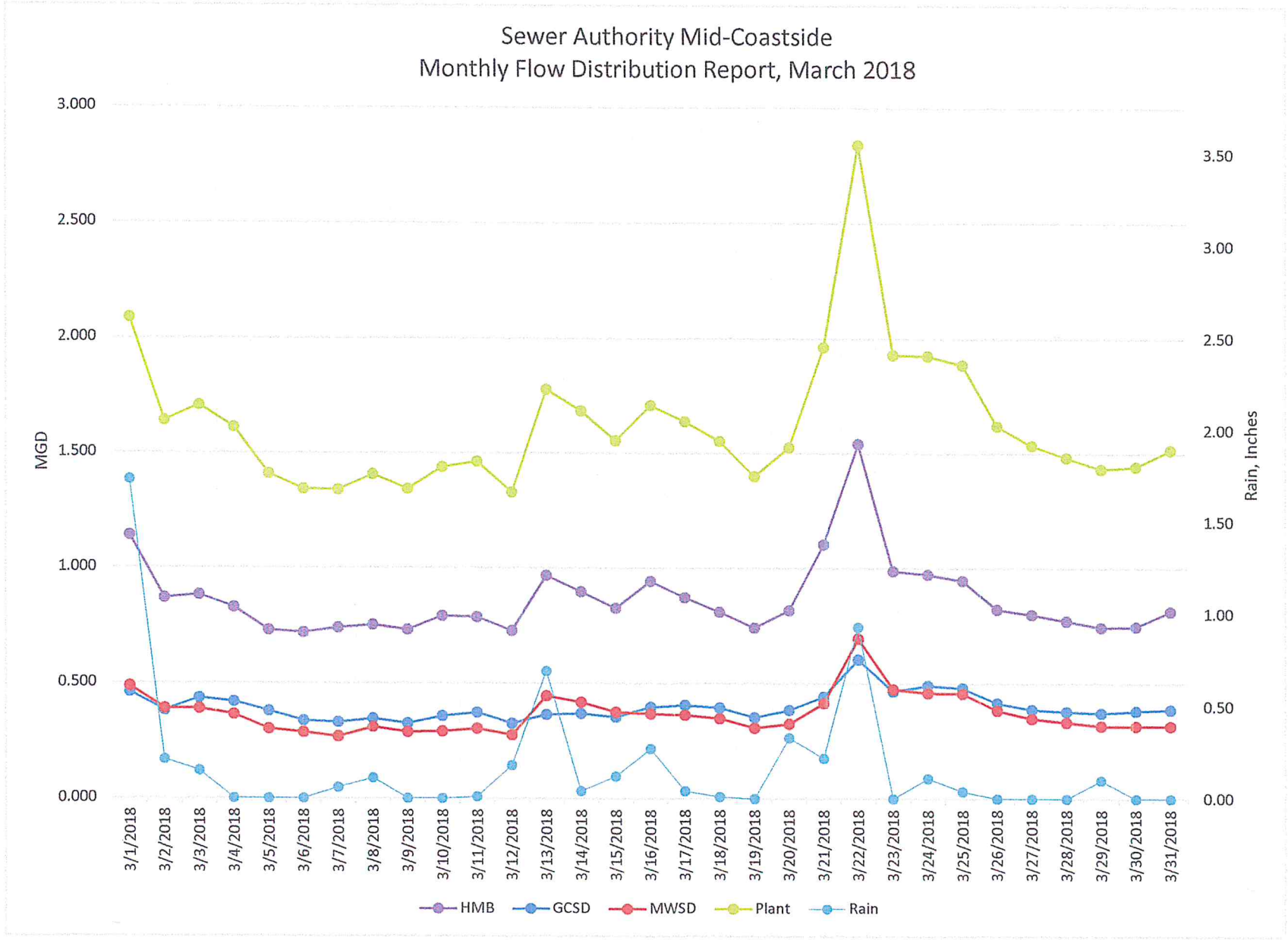
Sewer Authority Mid-Coastside

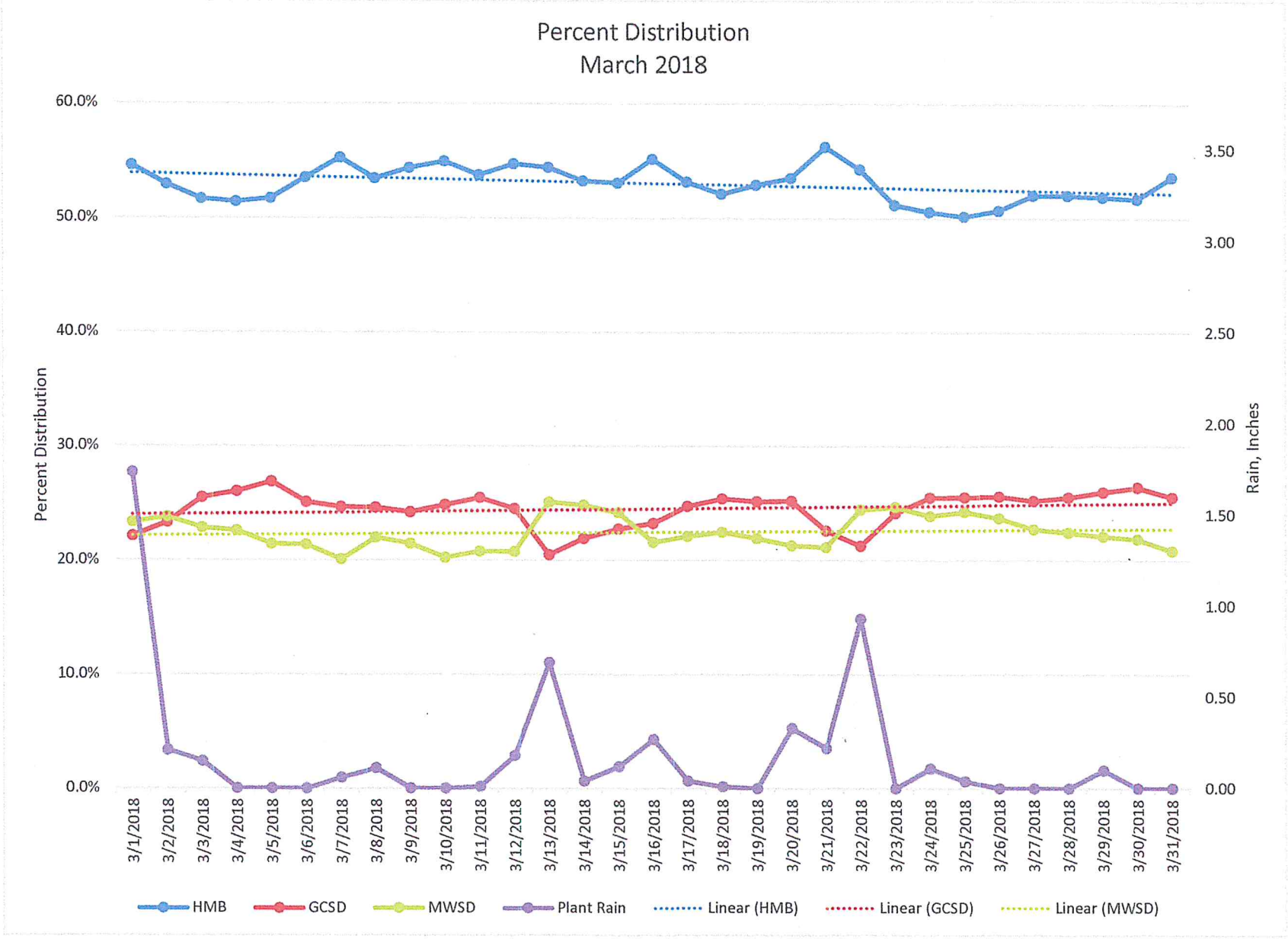
Monthly Flow Distribution Report for March 2018

Date	HMB	GCSD	MWSD	Plant	Rain Plant	Rain Portola	Rain Montara
3/1/2018	1.140	0.462	0.487	2.088	1.73	1.12	0.90
3/2/2018	0.868	0.382	0.390	1.640	0.21	0.18	0.17
3/3/2018	0.883	0.435	0.390	1.708	0.15	0.34	0.06
3/4/2018	0.829	0.419	0.364	1.612	0.00	0.00	0.00
3/5/2018	0.729	0.379	0.302	1.411	0.00	0.00	0.00
3/6/2018	0.719	0.337	0.287	1.343	0.00	0.00	0.00
3/7/2018	0.741	0.331	0.269	1.340	0.06	0.06	0.09
3/8/2018	0.752	0.346	0.309	1.407	0.11	0.14	0.01
3/9/2018	0.730	0.325	0.288	1.343	0.00	0.00	0.00
3/10/2018	0.791	0.357	0.291	1.439	0.00	0.00	0.00
3/11/2018	0.787	0.373	0.304	1.464	0.01	0.00	0.00
3/12/2018	0.728	0.326	0.276	1.330	0.18	0.14	0.15
3/13/2018	0.967	0.364	0.446	1.778	0.69	0.61	0.72
3/14/2018	0.897	0.369	0.418	1.684	0.04	0.14	0.13
3/15/2018	0.826	0.354	0.376	1.555	0.12	0.12	0.11
3/16/2018	0.943	0.397	0.369	1.709	0.27	0.20	0.12
3/17/2018	0.871	0.405	0.362	1.638	0.04	0.03	0.03
3/18/2018	0.810	0.394	0.349	1.553	0.01	0.00	0.00
3/19/2018	0.741	0.352	0.307	1.400	0.00	0.00	0.00
3/20/2018	0.817	0.385	0.325	1.527	0.33	0.41	0.38
3/21/2018	1.104	0.443	0.415	1.962	0.22	0.20	0.31
3/22/2018	1.541	0.604	0.694	2.839	0.93	0.77	0.65
3/23/2018	0.988	0.466	0.476	1.930	0.00	0.00	0.00
3/24/2018	0.974	0.491	0.460	1.925	0.11	0.00	0.20
3/25/2018	0.947	0.482	0.458	1.887	0.04	0.00	0.01
3/26/2018	0.821	0.415	0.384	1.620	0.00	0.00	0.00
3/27/2018	0.799	0.387	0.349	1.535	0.00	0.00	0.00
3/28/2018	0.772	0.379	0.333	1.483	0.00	0.00	0.00
3/29/2018	0.744	0.373	0.317	1.434	0.10	0.00	0.00
3/30/2018	0.747	0.382	0.316	1.445	0.00	0.00	0.00
3/31/2018	0.814	0.388	0.316	1.517	0.00	0.00	0.00
Totals	**26.817**	**12.303**	**11.427**	**50.547**	**5.35**	**4.46**	**4.04**

Summary

	HMB	GCSD	MWSD	Plant
Minimum	0.719	0.325	0.269	1.330
Average	**0.865**	**0.397**	**0.369**	**1.631**
Maximum	1.541	0.604	0.694	2.839
Distribution	**53.05%**	**24.34%**	**22.61%**	**100.0%**


Sewer Authority Mid-Coastside
Monthly Flow Distribution Report, March 2018
MGD
Rain, Inches
3.000
2.500
2.000
1.500
1.000
0.500
0.000
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
3/1/2018
3/2/2018
3/3/2018
3/4/2018
3/5/2018
3/6/2018
3/7/2018
3/8/2018
3/9/2018
3/10/2018
3/11/2018
3/12/2018
3/13/2018
3/14/2018
3/15/2018
3/16/2018
3/17/2018
3/18/2018
3/19/2018
3/20/2018
3/21/2018
3/22/2018
3/23/2018
3/24/2018
3/25/2018
3/26/2018
3/27/2018
3/28/2018
3/29/2018
3/30/2018
3/31/2018
HMB
GCSD
MWSD
Plant
Rain


Percent Distribution
March 2018
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Percent Distribution
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Rain, Inches
3/1/2018
3/2/2018
3/3/2018
3/4/2018
3/5/2018
3/6/2018
3/7/2018
3/8/2018
3/9/2018
3/10/2018
3/11/2018
3/12/2018
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3/14/2018
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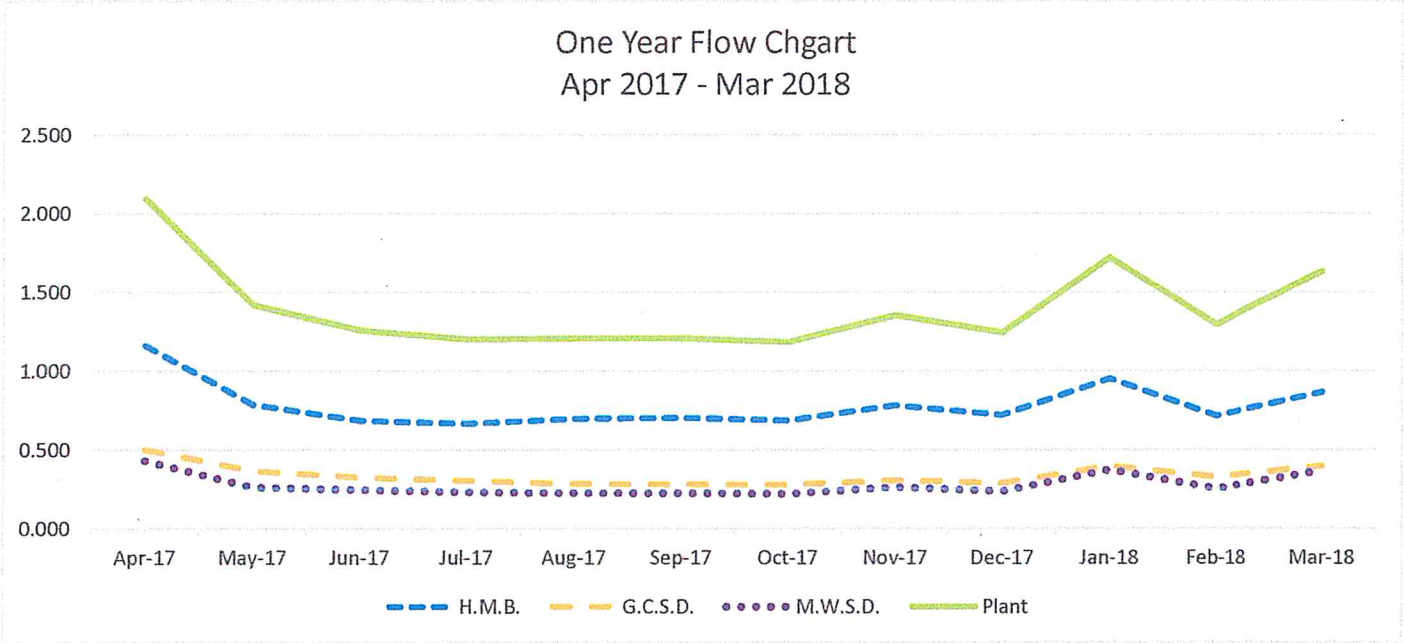
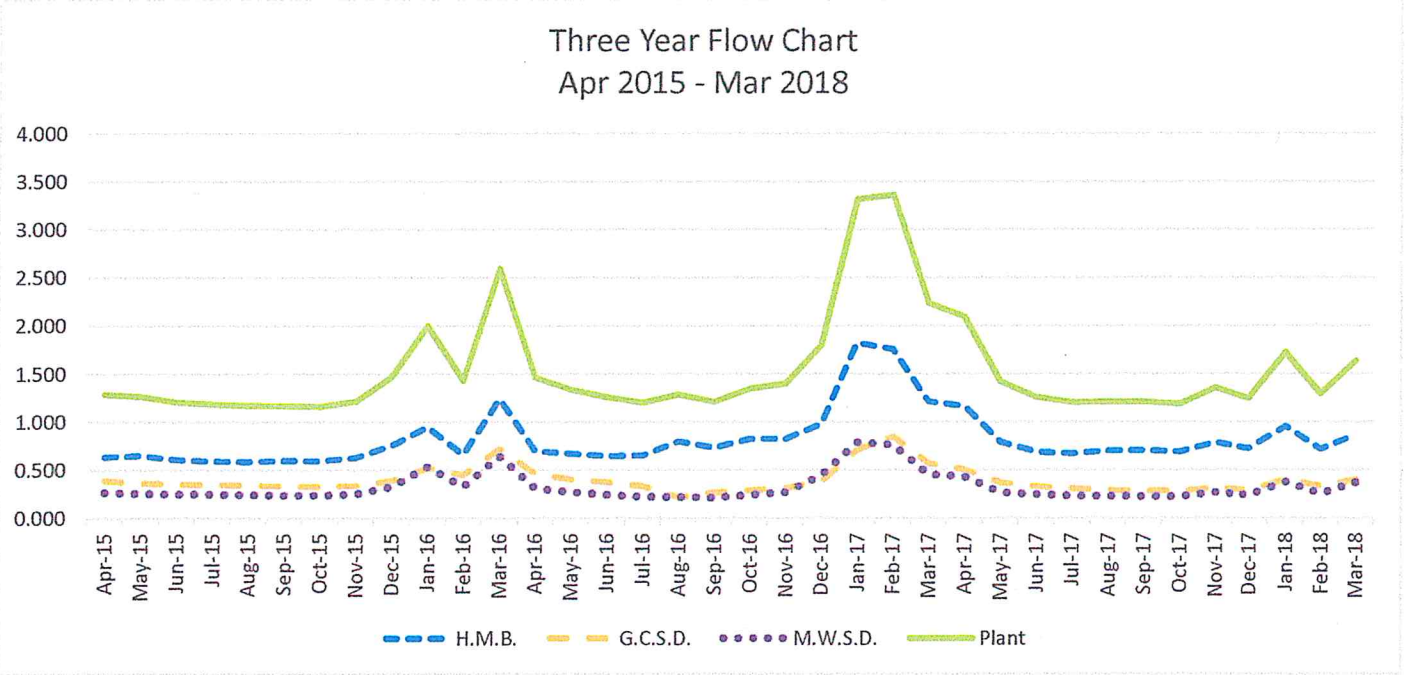
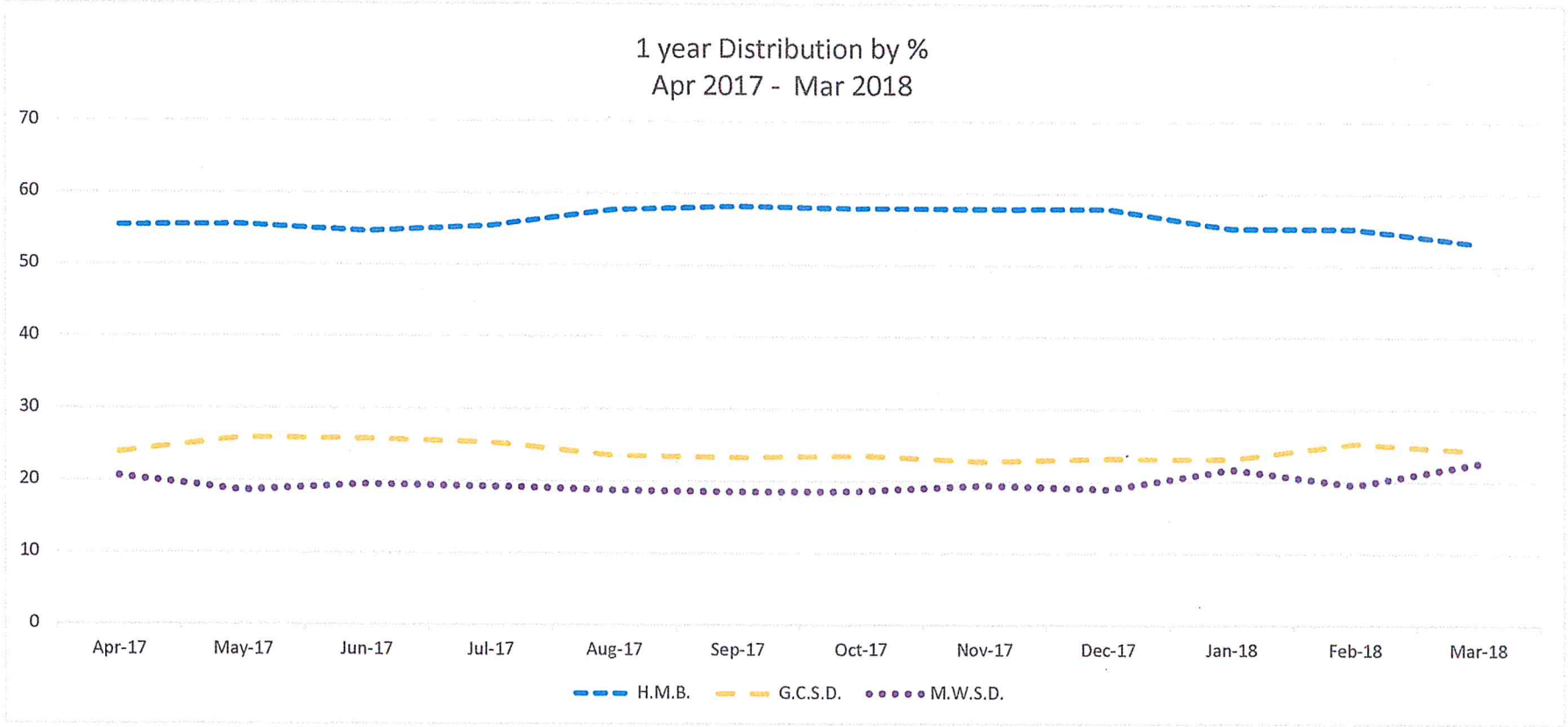
3/22/2018
3/23/2018
3/24/2018
3/25/2018
3/26/2018
3/27/2018
3/28/2018
3/29/2018
3/30/2018
3/31/2018
HMB
GCSD
MWSD
Plant Rain
Linear (HMB)
Linear (GCSD)
Linear (MWSD)

Most recent flow calibration December 2016 PS, November 2016 Plant





Flow based percent distribution based for past year



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: May 3**, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Review of Current Investment Portfolio

The District's Investment Policy and Guidelines requires that the Board review the status of the current investment portfolio. The following summarizes the status of these accounts:

- The District has most of its idle sewer funds deposited in the State of California's Local Agency Investment Fund (LAIF). The Monthly Average interest rate for March 2018 the rate was 1.524.

- The District has one checking account with Wells Fargo Bank for Water and Sewer Funds that is largely backed by Federal securities.

RECOMMENDATION:

District staff attempts to cash manage idle funds in LAIF as long as possible before transferring to the Wells Fargo checking accounts for disbursements.

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **May 3, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Connection Permit Applications Received

As of May 3, 2018 the following new **Sewer Connection Permit** application was received since the last report:

Date of Application	Property Owner	Site Address	Home Size

As of May 3, 2018 the following new **Water (Private Fire Sprinkler) Connection Permit** application was received since the last report:

Date of Application	Property Owner	Site Address	Home Size

As of May 3, 2018 the following new **Water Connection Permit** application was received since the last report:

Date of App.	Property Owner	Site Address	Home Size	Type of Connection

RECOMMENDATION:
No action is required. This is for Board information only.

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: May 3rd, 2018

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

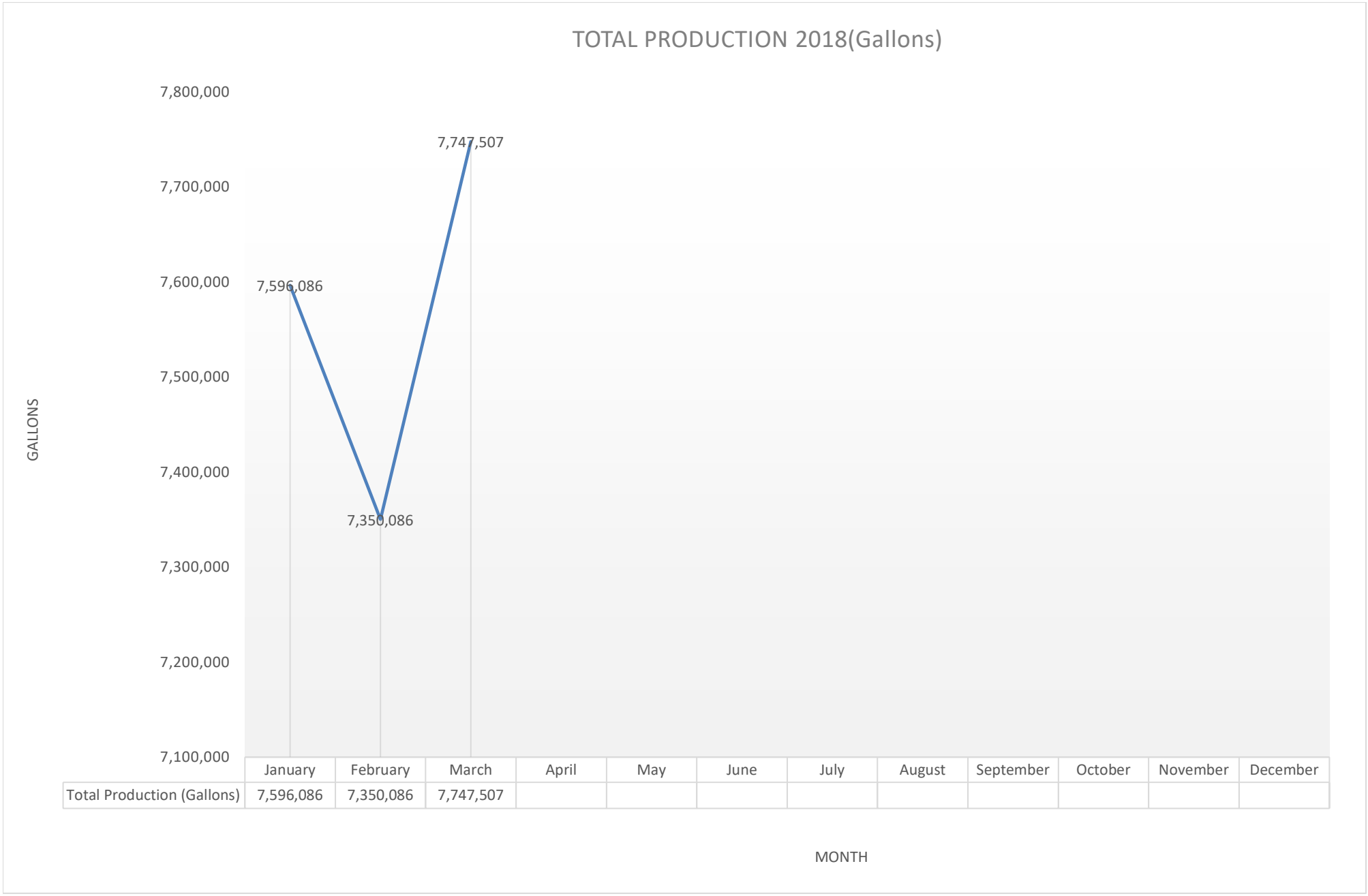
SUBJECT: Monthly Water Production Report

The attached two charts summarize the monthly water production for the District.
The first shows a consolidated from all sources by month. The second shows each water source the District uses, both wells and surface water. The production is shown in gallons of water produced.

RECOMMENDATION:

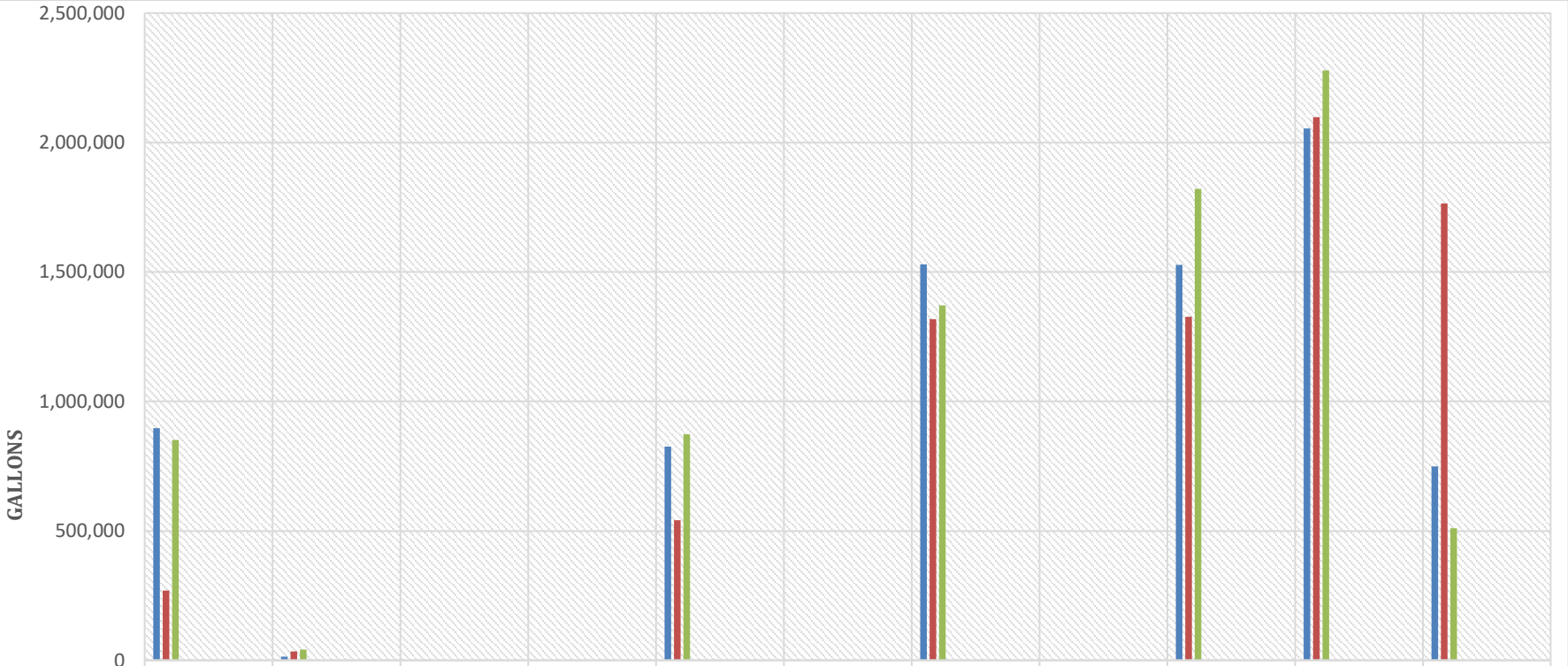
No action is required. These reports are provided for the Board's information only.

Attachments: 2



	January	February	March	April	May	June	July	August	September	October	November	December
Total Production (Gallons)	7,596,086	7,350,086	7,747,507									

MONTHLY WATER PRODUCTION 2017



	PILLAR RIDGE	NORTH AIRPORT WELL	SOUTH AIRPORT WELL	AIRPORT WELL #3	DRAKE WELL	PORTOLA WELL #1	PORTOLA WELL #3	PORTOLA WELL #4	WAGNER WELL #3	ALTA VISTA WELL	MONTARA SURFACE DIV.
January	897,174	14,170	0	0	825,312	0	1,529,950	0	1,526,980	2,054,000	748,500
February	268,696	33,440	0	0	541,900	0	1,317,830	0	1,326,220	2,098,500	1,763,500
March	850,997	41,140	0	0	872,550	2,650	1,370,380	0	1,820,890	2,279,100	509,800
April											
May											0
June											
July											
August											
September											
October											
November											
December											

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting of: May 3rd, 2018

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Rain Report

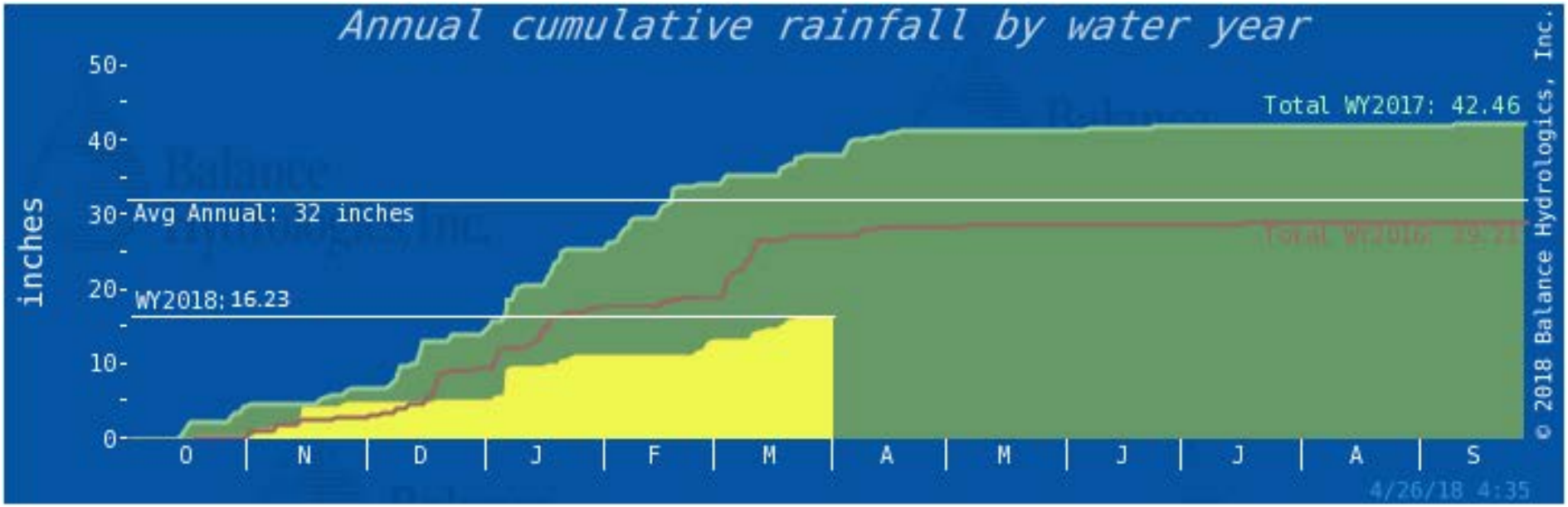
The attached chart shows the monthly rainfall at Alta Vista Treatment Plant for the current and prior water years along with seven-year average rain fall.

RECOMMENDATION:

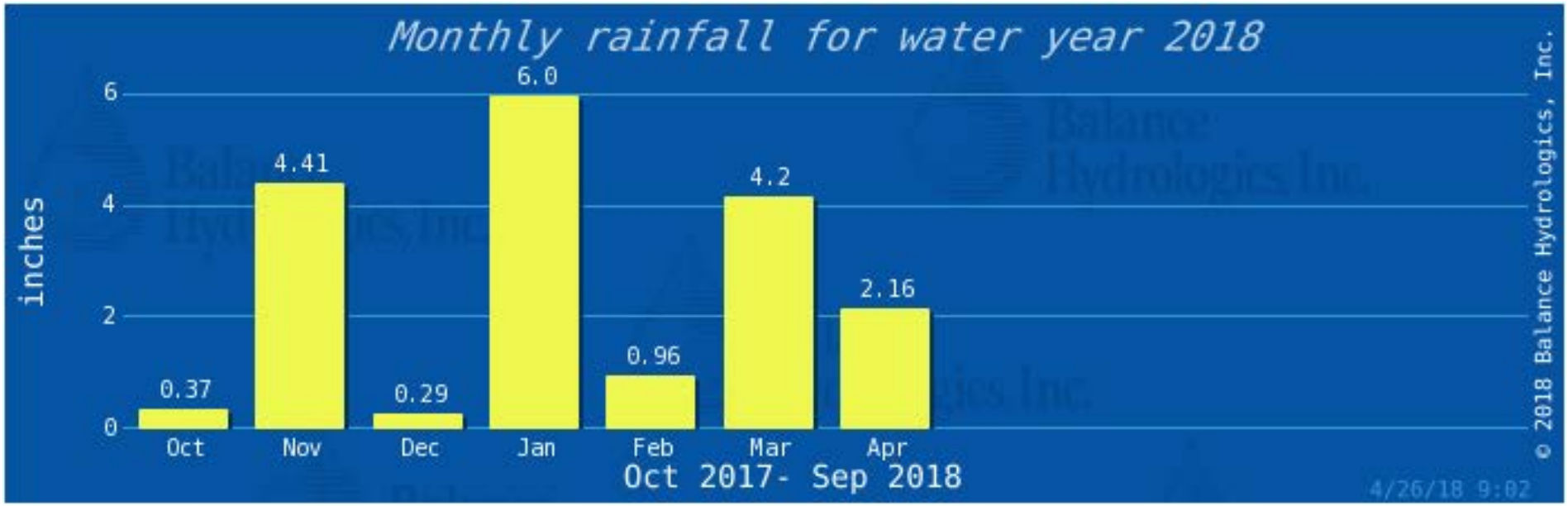
No action is required. These reports are provided for the Board's information only.

Attachments: 2

Annual Cumulative Rainfall



Monthly Cumulative Rainfall



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: May 3rd, 2018

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Monthly Solar Energy Report

The attached chart summarizes the monthly solar production at the Alta Vista Array. Since the installation of the solar panels the District produced 40778 kWh and saved 69323 lbs of CO_2.

RECOMMENDATION:

No action is required. This information is provided for the Board's information only.

Attachments: 1

SOLAR ENERGY PRODUCED IN 2018 (kWh)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
total kWh	79	174	360									

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **May 3, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Monthly Public Agency Retirement Service Report for February 2018.

The District has received the monthly PARS report for February 2018.

Contributions are calculated on a bi-weekly basis, and contributions are made on a monthly basis.

The following monthly reports are submitted as consent agenda items on a monthly basis.

RECOMMENDATION:

This is for Board information only.

Attachment

PUBLIC AGENCY RETIREMENT SERVICES | PARS

TRUSTED SOLUTIONS. LASTING RESULTS.

REC
APR 0 6 2018
BY:

Montara Water and San

PARS (CA)

Monthly Account Report for the Period

2/1/2018 to 2/28/2018

Clemens H. Heldmaier
General Manager
Montara Water and San
P.O. Box 370131
Montara, CA 94037

PlanID: P7-REP15A

Account Summary

Source		Beginning Balance as of 2/1/2018	Contributions	Earnings	Expenses	Distributions	Transfers	Ending Balance as of 2/28/2018
Contributions		$635,308.89	$10,367.86	($21,659.70)	$295.47	$1,042.51	$0.00	$622,679.07
	TOTAL	**$635,308.89**	**$10,367.86**	**($21,659.70)**	**$295.47**	**$1,042.51**	**$0.00**	**$622,679.07**

Investment Selection

PARS Capital Appreciation INDEX PLUS

Investment Objective

The primary goal of the Capital Appreciation objective is growth of principal. The major portion of the assets are invested in equity securities and market fluctuations are expected.

Investment Return

Source	1-Month	3-Months	1-Year	Annualized Return 3-Years	5-Years	10-Years	Plan's Inception Date
General	-3.38%	0.84%	11.68%	-	-	-	03/08/16

Information as provided by US Bank, Trustee for PARS; Not FDIC Insured; No Bank Guarantee; May Lose Value.

Past performance does not guarantee future results. Performance returns may not reflect the deduction of applicable fees, which could reduce returns. Information is deemed reliable but may be subject to change.

Account balances are inclusive of Trust Administration, Trustee and Investment Management fees.

Investment Return: Annualized rate of return is the return on an investment over a period other than one year multiplied or divided to give a comparable one-year return.

February 2018 PARS Statement
Detail Information

PARS Beginning Balance as of February 1, 2017		$ 635,308.89
Contributions:		
January 15, 2017 Calculation		
Wages	$ 41,990.51	
Employer - 6.92%	$ 2,905.74	
Employee - 7.75%	$ 3,254.26	
Contributions Subtotal		$ 6,160.01
January 31, 2017 Calculation		
Wages	$ 28,683.39	
Employer - 6.92%	$ 1,984.89	
Employee - 7.75%	$ 2,222.96	
Contributions Subtotal		$ 4,207.85
Rounding		
Total Contributions thru January		$ 10,367.86
Rounding		$ -
		$ 10,367.86
Earnings		($21,659.70)
Expenses		$ (295.47)
Distributions		$ (1,042.51)
PARS Ending Balance as of February 28		$ 622,679.07

Fund Impact - PARS Wages

January 15, 2017 Calculation	Sewer	Water	Total
Wages	$ 16,448.30	$ 25,542.22	$ 41,990.51
Employer - 6.92%	$ 1,138.22	$ 1,767.52	$ 2,905.74

January 31, 2017 Calculation	Sewer	Water	Total
Wages	$ 9,381.38	$ 19,302.02	$ 28,683.39
Employer - 6.92%	$ 649.19	$ 1,335.70	$ 1,984.89

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **May 3, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Review and Possible Action of Sewer Authority Mid-Coastside Draft 20 Year Capital Improvement Plan.

MWSD is currently going through the required prop 218 process to raise sewer rates by roughly 23% next FY and 20% the following FY. The most recent rate study indicates that rates should be raised by 90% over the coming 5 years. However, MWSD will assess the actual needs after the first two years of rate increases.

The additional funds will be mainly needed to finance the Sewer Authoriy-Mid-Coastside's (SAM) increasing budget. The capital needs of the agency are driven by operational increases, as well as capital needs. SAM staff and SRT worked jointly to prepare a Draft 20 Year Capital Improvement Program at the City's request. Last year SAM worked with a 5 year plan that was prepared in conjunction with SAM's Strategic Plan.

The SAM Board received the Draft 20 Year Plan at the April 9 Board Meeting. SAM anticipates spending around $2 million capital funds per year over the coming 20 years.

SAM staff was asked to present the plan to all three member agencies boards. SAM staff and SRT will be available to present the plan.

Also available to participate in the discussion will be the District's sewer engineer. MWSD staff has not participated in the preparation of the plan.

RECOMMENDATION:

Receive the presentation of the 20 Year Draft Capital Plan, discuss and give direction to MWSD's SAM representatives and MWSD staff.

Attachment

SEWER AUTHORITY MID-COASTSIDE

DRAFT
20-Year Capital Improvement Plan

April 2018

Executive Summary

SAM's facilities require improvements to address system renewal and replacement needs, ensure safety of all staff, protect public health and environment, continue to maintain and improve system reliability, and ensure continuous compliance with all applicable regulations. This Capital Improvement Plan (CIP) comprises the collection of projects that may be necessary over the next 20 years to continue to provide wastewater treatment for the communities of City of Half Moon Bay, El Granada, Miramar, Montara, Moss Beach, and Princeton by the Sea. The intent of this plan is to provide a long-term framework for capital expenditures that can be updated and implemented approximately every 5 years. The total estimated expenditure to implement the CIP is $35.8 million (2018 dollars) over 20 years. Figure ES-1 shows a summary of the annual outlay of capital projects over this period.

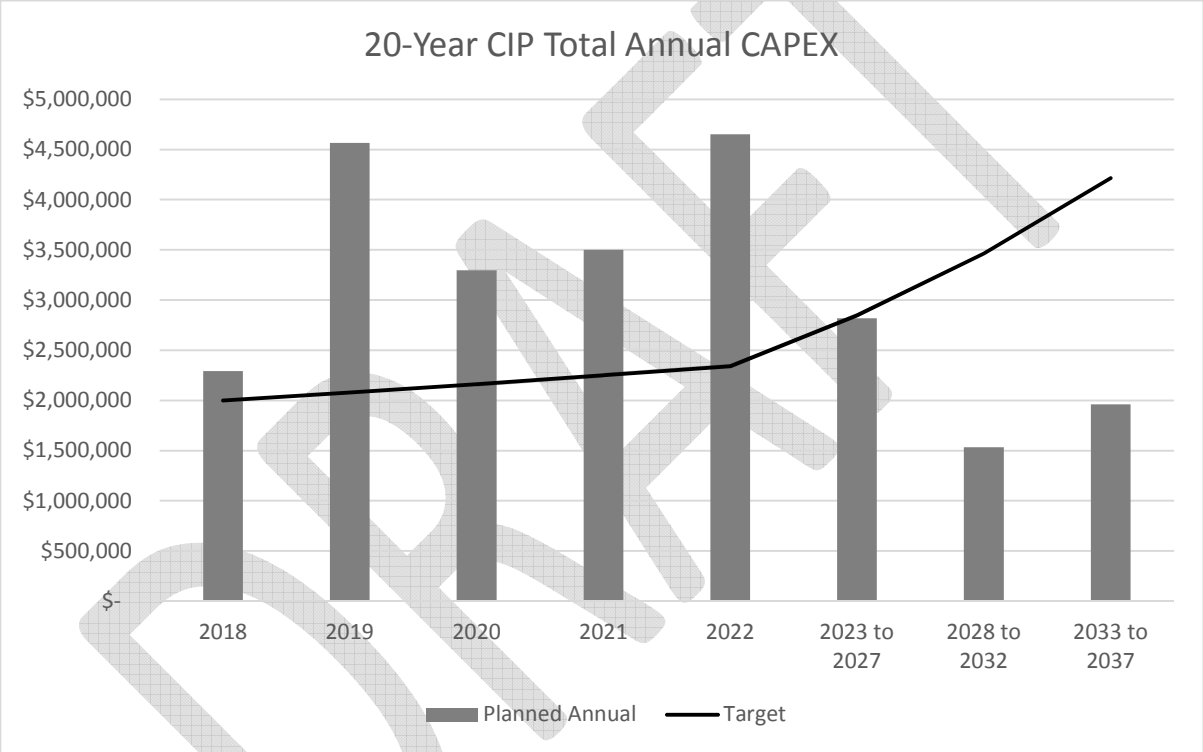


Figure ES-1: Annual CIP Capital Expenditure 2018 to 2037, adjusted for inflation (4%)

Methodology

The project list in this CIP was generated by combining several sources of information and assessing SAM's needs for continued, uninterrupted, operation. All assets owned by SAM were considered, including the treatment plant (WWTP), pump stations, buildings, vehicles, and force mains. The following sources of information were used, in the manner described below:

- 2017 Infrastructure Plan – The projects defined and prioritized in this 5-year plan were carried over into the 20-year CIP.

- 2007 Asset list compiled by former general manager Tony Pullin – This extensive list contained over 1,100 assets along with their acquisition date. It was filtered and used to identify the current age of major assets.
- Meetings with WWTP operators and staff – Two meetings were held with the staff and operators of the WWTP and pump stations to go through each potential project, identify additional needs, and prioritize repairs and replacements.

A draft list of approximately 100 potential repair/replacement projects were identified prior to the meetings with SAM staff. These were scheduled based on the priorities in the 2017 Infrastructure Plan and by comparing standard useful life estimates against asset ages through the 20-year planning period. Cost estimates were developed using past purchase prices of equipment and engineering judgement. Costs were estimated in 2018 dollars and inflated at the rate of 4% per year.

The draft list of projects was distributed to SAM staff and management for review. Two meetings were held to discuss each project on the list and revise their scope, cost, and timing, as needed. SAM staff provided additional resources on the age and value of assets when appropriate. Discussions with SAM staff led to the prioritization of projects that are required to ensure safety and to improve the operating efficiency of SAM's facilities. Attachment 4 contains the full project list with each asset's current age, expected useful life, reasoning for resulting prioritization, and reference number for projects carried over from the 2017 5-Year Infrastructure Plan.

Review of 5-Year Infrastructure Plan Methodology

Critical assets and resources were identified and assessed for current conditions and expected performance against their estimated remaining useful life. Hazards and resulting vulnerabilities to these assets were then ranked in terms of how their respective occurrence or failure could impact the functionality of the treatment plant. Each hazard's consequence was ranked against the expected likelihood of occurrence, or risk, for SAM.

Addressing and avoiding these consequences led to a list of projects for inclusion in the 5-year plan. These projects were divided into three categories, in order of priority for implementation:

Category 1 – Regulatory and Safety: This category focuses on projects that aim to ensure that SAM remains in full regulatory and safety compliance with all applicable regulations. These projects typically cover a wide variety of subjects to improve facilities for safety reasons, to reduce emissions of pollutants to the environment, and to meet future regulatory requirements.

Category 2 – Replacement and Rehabilitation: This category focuses on projects related to maintaining existing aging infrastructure and the replacement requirements of SAM. Replacement projects focus on equipment that has exceeded its useful life, have previous history of failure, or are obsolete making it difficult or impossible to obtain replacement parts. The goals are to provide for ongoing or future renovation activities. The projects in this category typically include mechanical equipment replacement, piping renovations and replacement, electrical (including switch gear/distribution) and instrumentation replacement, upgrades, and modernization.

Category 3 – Sustainability/Energy/Optimization: This category focuses on projects that optimize existing processes, or energy efficiency, and sustainability of the treatment plant, the Intertie Pipeline System (IPS), and other facilities. The goals are to continue upgrading and improving the treatment

plant's existing infrastructure and systems to optimize and reduce energy use, lower maintenance costs, and prevent major failures.

Within each category, projects were ranked based on their overall risk score and scheduled within the 5-year planning horizon. The full methodology and resulting 5-year plan project list can be found in Attachment 5.

CIP Project Summary

The draft project list has been categorized for organization, into each of the three pump stations; the force mains; administration/buildings; general WWTP; and the processes or subcategories of the WWTP. Figure ES-2 provides the total planned expenditures, in 2018 dollars, for each of the categories of projects.

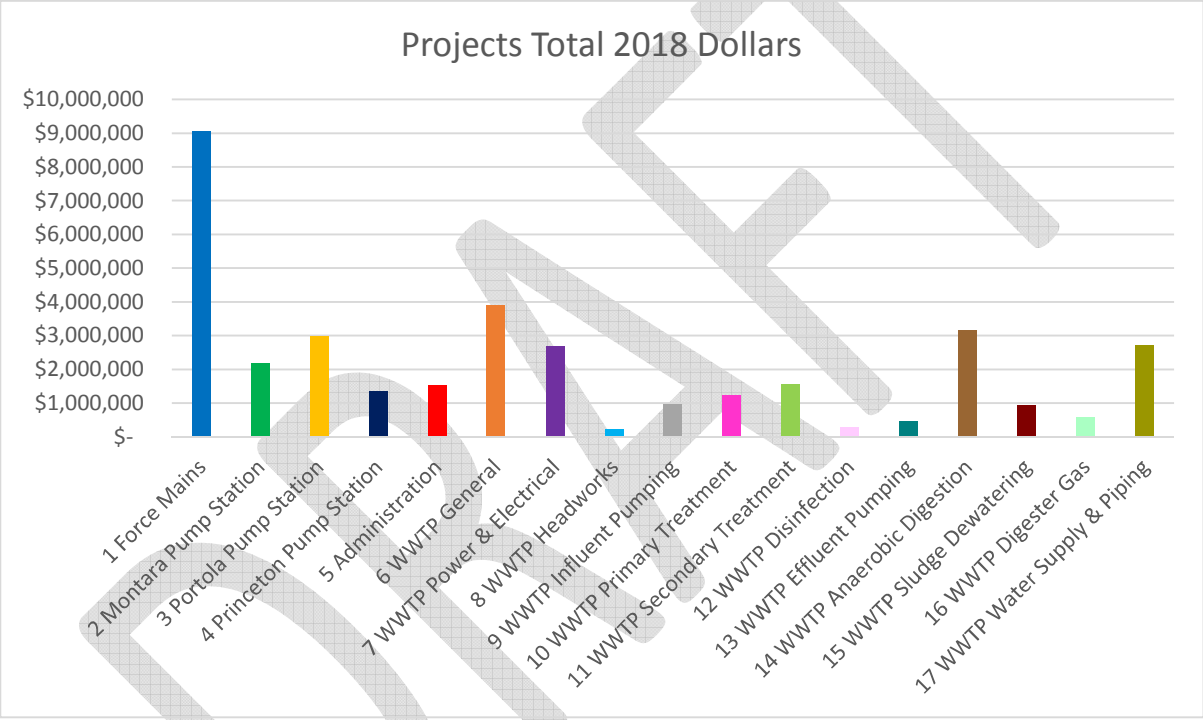


Figure ES-2: Sum total of CIP project estimated costs

The Force Mains category includes the replacement of some or all of the Granada Force Main (ongoing), Princeton Force Main, and Montara Force Main. These projects are significant expenditures but also critical for public health and environment, safety, and regulatory compliance.

The WWTP Overall category contains two projects to improve plant safety and operating efficiency. These studies may result in additional project recommendations or may lead SAM to reprioritize projects on the draft list. SAM has been planning to implement a recycled water program for several years; this project is included in the CIP and planned for 2023 or later.

Figure ES-3 shows the breakdown of total annual CAPEX by category, adjusted for inflation.

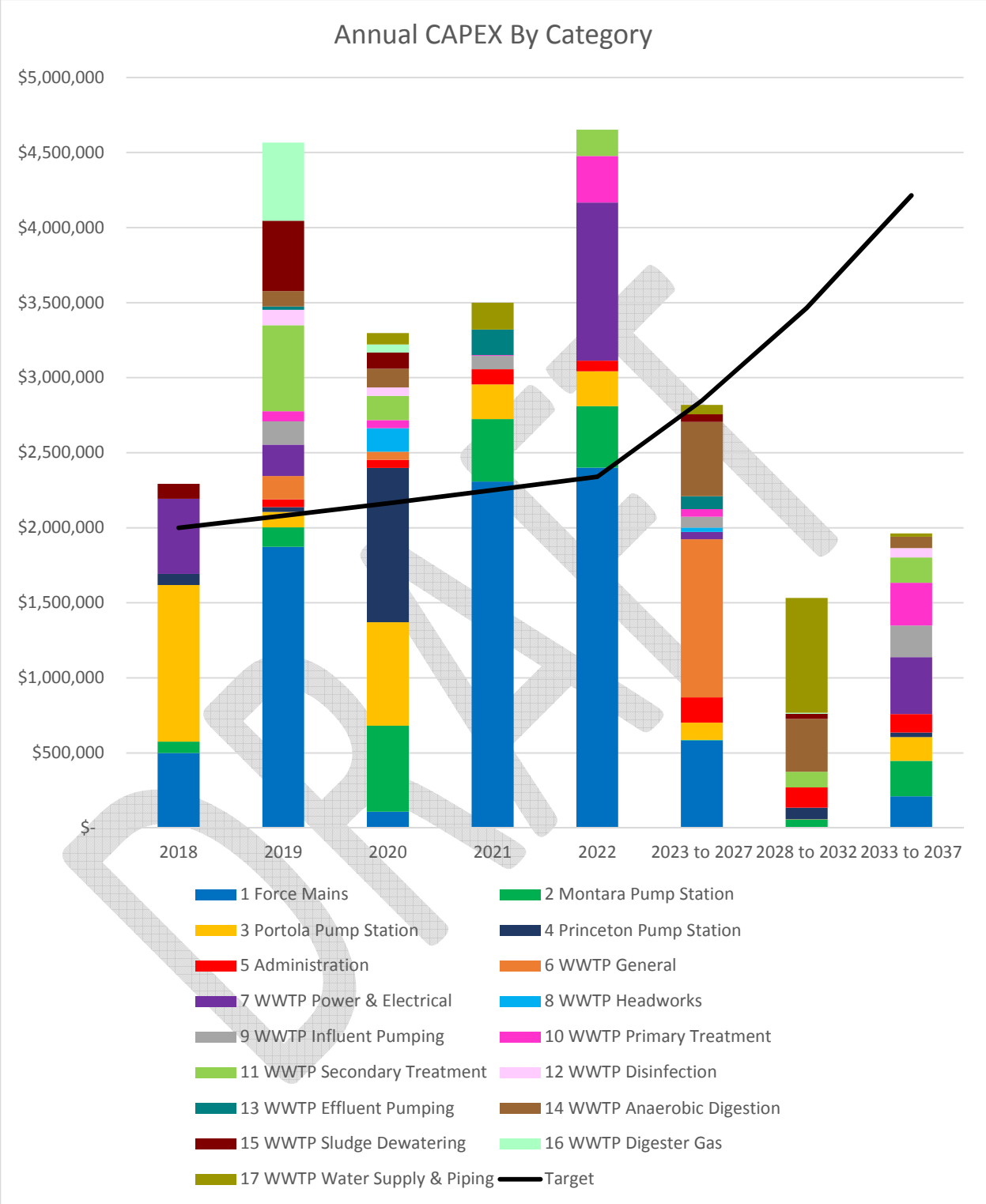


Figure ES-3: Annual CIP Capital Expenditure 2018 to 2037, by project category, adjusted for inflation (4%)

Attachments

Attachment 1 – Project summary showing the total planned expenditure, by year and project category. Costs for each year are adjusted for inflation (4%).

Attachment 2 – Series of tables with 2018 dollars cost estimates and costs adjusted for inflation, for each project category.

Attachment 3 – Project expenditure list organized by year. Note that many projects have multiple years of implementation, therefore repeat in this table.

Attachment 4 – Full project list for reference, in order of project number, with costs listed and adjusted for inflation.

Attachment 5 – 2017 5-Year Infrastructure Plan

DRAFT

Attachment 1 – Project Summary Table

Project Summary

			Annual Costs Adjusted for 4% Inflation							
	Category	**Total Sum 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
	1 Force Mains	$ 9,054,000	$ 500,000	$ 1,872,000	$ 108,160	$ 2,307,471	$ 2,399,769	$ 583,937	$ -	$ 210,685
	2 Montara Pump Station	$ 2,180,000	$ 75,000	$ 130,000	$ 573,248	$ 416,200	$ 409,450	$ 2,847	$ 55,414	$ 235,967
	3 Portola Pump Station	$ 2,970,000	$ 1,042,500	$ 104,000	$ 689,520	$ 230,597	$ 233,972	$ 115,288	$ 1,732	$ 158,014
	4 Princeton Pump Station	$ 1,355,000	$ 75,000	$ 31,200	$ 1,027,520	$ -	$ -	$ -	$ 77,925	$ 31,603
	5 Administration	$ 1,520,000	$ -	$ 52,000	$ 54,080	$ 101,238	$ 70,192	$ 167,951	$ 135,071	$ 122,197
	6 WWTP General	$ 3,900,000	$ -	$ 156,000	$ 54,080	$ -	$ -	$ 1,053,251	$ -	$ -
	7 WWTP Power & Electrical	$ 2,675,000	$ 500,000	$ 208,000	$ -	$ -	$ 1,052,873	$ 49,816	$ -	$ 379,233
	8 WWTP Headworks	$ 245,000	$ -	$ -	$ 156,832	$ -	$ -	$ 28,466	$ -	$ -
	9 WWTP Influent Pumping	$ 980,000	$ -	$ 156,000	$ -	$ 89,989	$ -	$ 71,166	$ -	$ 210,685
	10 WWTP Primary Treatment	$ 1,240,000	$ -	$ 67,600	$ 54,080	$ 5,648	$ 310,013	$ 51,239	$ -	$ 284,425
	11 WWTP Secondary Treatment	$ 1,550,000	$ -	$ 572,000	$ 162,240	$ -	$ 175,479	$ -	$ 103,901	$ 168,548
	12 WWTP Disinfection	$ 300,000	$ -	$ 104,000	$ 54,080	$ -	$ -	$ -	$ -	$ 63,205
	13 WWTP Effluent Pumping	$ 470,000	$ -	$ 20,800	$ -	$ 168,730	$ -	$ 85,399	$ -	$ -
	14 WWTP Anaerobic Digestion	$ 3,154,000	$ -	$ 104,000	$ 125,466	$ -	$ -	$ 495,597	$ 351,877	$ 76,268
	15 WWTP Sludge Dewatering	$ 930,000	$ 100,000	$ 468,000	$ 108,160	$ -	$ -	$ 51,239	$ 34,634	$ -
	16 WWTP Digester Gas	$ 570,000	$ -	$ 520,000	$ 54,080	$ -	$ -	$ -	$ 6,927	$ -
	17 WWTP Water Supply & Piping	$ 2,710,000	$ -	$ -	$ 75,712	$ 179,978	$ -	$ 62,626	$ 765,401	$ 21,068
	Planned Annual	$ 1,790,150	$ 2,292,500	$ 4,565,600	$ 3,297,258	$ 3,499,850	$ 4,651,747	$ 2,818,822	$ 1,532,880	$ 1,961,898
	Target	*$ 2,000,000*	*$ 2,000,000*	*$ 2,080,000*	*$ 2,163,200*	*$ 2,249,728*	*$ 2,339,717*	*$ 2,846,624*	*$ 3,463,353*	*$ 4,213,698*

Attachment 2 – Detailed Project Tables

Project Category: 1 Force Mains

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 452,700	$ 500,000	$ 1,872,000	$ 108,160	$ 2,307,471	$ 2,399,769	$ 583,937	$ -	$ 210,685

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
1.01	Granada Force Main	Replace deteriorated sections	$ 1,000,000	$ 500,000							$ 500,000
1.02	Princeton Force Main	Replace deteriorated sections	$ 1,800,000		$ 1,800,000						
1.03	Montara Force Main	Conduct condition assessment	$ 100,000			$ 100,000					
1.04	Montara Force Main	Replace pipeline	$ 6,153,999				$ 2,051,333	$ 2,051,333	$ 2,051,333		

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
1.01	Granada Force Main	Replace deteriorated sections	$ 1,000,000	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,053,425
1.02	Princeton Force Main	Replace deteriorated sections	$ 1,800,000	$ -	$ 1,872,000	$ -	$ -	$ -	$ -	$ -	$ -
1.03	Montara Force Main	Conduct condition assessment	$ 100,000	$ -	$ -	$ 108,160	$ -	$ -	$ -	$ -	$ -
1.04	Montara Force Main	Replace pipeline	$ 6,153,999	$ -	$ -	$ -	$ 2,307,471	$ 2,399,769	$ 2,919,686	$ -	$ -
Total Annual CAPEX			**$ 452,699.95**	**$ 500,000**	**$ 1,872,000**	**$ 108,160**	**$ 2,307,471**	**$ 2,399,769**	**$ 583,937**	**$ -**	**$ 210,685**

Project Category: 2 Montara Pump Station

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 109,000	$ 75,000	$ 130,000	$ 573,248	$ 416,200	$ 409,450	$ 2,847	$ 55,414	$ 235,967

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
2.01	Electrical & Emergency Power	Repair damaged exterior electrical conduits	$ 125,000			$ 75,000					$ 50,000
2.02	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 150,000	$ 75,000							$ 75,000
2.03	Electrical & Emergency Power	Replace emergency generator	$ 450,000			$ 225,000					$ 225,000
2.04	Electrical & Emergency Power	Repair/replace front door and generator room door frames	$ 80,000				$ 40,000				$ 40,000
2.05	Pumps	Replace pumps 1 & 2	$ 400,000				$ 200,000	$ 200,000			
2.06	Pumps	Replace chopper pump 3	$ 150,000								$ 150,000
2.07	Pumps	Install grit chamber	$ 125,000		$ 125,000						
2.08	Pumps	Rehbilitate pump station bypass system	$ 200,000			$ 200,000					
2.09	Metering & Controls	Replace PLC	$ 20,000				$ 10,000				$ 10,000
2.10	Metering & Controls	Replace flowmeter	$ 300,000					$ 150,000		$ 150,000	
2.11	Chemical	Evaluate chemical storage tank and metering pumps, potentially remove storage and replace with tablet system	$ 20,000				$ 20,000				
2.12	Storage	Routine maintenance of 400,000 gal Walker tank, fencing, and gates	$ 60,000			$ 30,000			$ 10,000	$ 10,000	$ 10,000
2.13	Building and Support	Install proper hatches	$ 50,000				$ 50,000				
2.14	Building and Support	Fix roof and demo old chemical building	$ 50,000				$ 50,000				

Project Category: 2 Montara Pump Station

Escalated Costs
escalation rate *4%*
discount rate *4%*

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
2.01	Electrical & Emergency Power	Repair damaged exterior electrical conduits	$ 125,000	$ -	$ -	$ 81,120	$ -	$ -	$ -	$ -	$ 105,342
2.02	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 150,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 158,014
2.03	Electrical & Emergency Power	Replace emergency generator	$ 450,000	$ -	$ -	$ 243,360	$ -	$ -	$ -	$ -	$ 474,041
2.04	Electrical & Emergency Power	Repair/replace front door and generator room door frames	$ 80,000	$ -	$ -	$ -	$ 44,995	$ -	$ -	$ -	$ 84,274
2.05	Pumps	Replace pumps 1 & 2	$ 400,000	$ -	$ -	$ -	$ 224,973	$ 233,972	$ -	$ -	$ -
2.06	Pumps	Replace chopper pump 3	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 316,027
2.07	Pumps	Install grit chamber	$ 125,000	$ -	$ 130,000	$ -	$ -	$ -	$ -	$ -	$ -
2.08	Pumps	Rehbilitate pump station bypass system	$ 200,000	$ -	$ -	$ 216,320	$ -	$ -	$ -	$ -	$ -
2.09	Metering & Controls	Replace PLC	$ 20,000	$ -	$ -	$ -	$ 11,249	$ -	$ -	$ -	$ 21,068
2.10	Metering & Controls	Replace flowmeter	$ 300,000	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ 259,751	$ -
2.11	Chemical	Evaluate chemical storage tank and metering pumps, potentially remove storage and replace with tablet system	$ 20,000	$ -	$ -	$ -	$ 22,497	$ -	$ -	$ -	$ -
2.12	Storage	Routine maintenance of 400,000 gal Walker tank, fencing, and gates	$ 60,000	$ -	$ -	$ 32,448	$ -	$ -	$ 14,233	$ 17,317	$ 21,068
2.13	Building and Support	Install proper hatches	$ 50,000	$ -	$ -	$ -	$ 56,243	$ -	$ -	$ -	$ -
2.14	Building and Support	Fix roof and demo old chemical building	$ 50,000	$ -	$ -	$ -	$ 56,243	$ -	$ -	$ -	$ -
	Total Annual CAPEX		**$ 109,000**	**$ 75,000**	**$ 130,000**	**$ 573,248**	**$ 416,200**	**$ 409,450**	**$ 2,847**	**$ 55,414**	**$ 235,967**

Project Category: 3 Portola Pump Station

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 148,500	$ 1,042,500	$ 104,000	$ 689,520	$ 230,597	$ 233,972	$ 115,288	$ 1,732	$ 158,014

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
3.01	Storage	Replace surge tank	$ 75,000	$ 75,000							
3.02	Storage	Expand wet weather storage	$ 690,000	$ 690,000							
3.03	Building & Support	Install proper hatches	$ 50,000		$ 50,000						
3.04	Building & Support	Rehabilitate deteriorated concrete in wet well	$ 110,000			$ 10,000	$ 100,000				
3.05	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 150,000	$ 75,000							$ 75,000
3.06	Electrical & Emergency Power	Replace emergency generator	$ 450,000			$ 225,000					$ 225,000
3.07	Pumps	Rehbilitate pump station bypass system	$ 200,000			$ 200,000					
3.08	Pumps	Replace pumps 1 & 2 with chopper pumps	$ 405,000	$ 202,500		$ 202,500					
3.09	Pumps	Replace pumps 3 & 4	$ 400,000						$ 400,000		
3.10	Chemical	Evaluate condition of fresh water tank and appurtenances	$ 10,000				$ 5,000				$ 5,000
3.11	Chemical	Evaluate chemical storage, strategy, and odor control system	$ 30,000					$ 30,000			
3.12	Chemical	Recondition odor control system	$ 110,000		$ 50,000				$ 5,000	$ 5,000	$ 50,000
3.13	Metering & Controls	Replace flowmeter	$ 150,000					$ 150,000			
3.14	Metering & Controls	Replace PLC and level transducer	$ 40,000					$ 20,000			$ 20,000
3.15	Building & Support	Water proofing and drainage rehabilitation	$ 100,000				$ 100,000				

Project Category: 3 Portola Pump Station

Escalated Costs
escalation rate *4%*
discount rate *4%*

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
3.01	Storage	Replace surge tank	$ 75,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3.02	Storage	Expand wet weather storage	$ 690,000	$ 690,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3.03	Building & Support	Install proper hatches	$ 50,000	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
3.04	Building & Support	Rehabilitate deteriorated concrete in wet well	$ 110,000	$ -	$ -	$ 10,816	$ 112,486	$ -	$ -	$ -	$ -
3.05	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 150,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 158,014
3.06	Electrical & Emergency Power	Replace emergency generator	$ 450,000	$ -	$ -	$ 243,360	$ -	$ -	$ -	$ -	$ 474,041
3.07	Pumps	Rehbilitate pump station bypass system	$ 200,000	$ -	$ -	$ 216,320	$ -	$ -	$ -	$ -	$ -
3.08	Pumps	Replace pumps 1 & 2 with chopper pumps	$ 405,000	$ 202,500	$ -	$ 219,024	$ -	$ -	$ -	$ -	$ -
3.09	Pumps	Replace pumps 3 & 4	$ 400,000	$ -	$ -	$ -	$ -	$ -	$ 569,325	$ -	$ -
3.10	Chemical	Evaluate condition of fresh water tank and appurtenances	$ 10,000	$ -	$ -	$ -	$ 5,624	$ -	$ -	$ -	$ 10,534
3.11	Chemical	Evaluate chemical storage, strategy, and odor control system	$ 30,000	$ -	$ -	$ -	$ -	$ 35,096	$ -	$ -	$ -
3.12	Chemical	Recondition odor control system	$ 110,000	$ -	$ 52,000	$ -	$ -	$ -	$ 7,117	$ 8,658	$ 105,342
3.13	Metering & Controls	Replace flowmeter	$ 150,000	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ -	$ -
3.14	Metering & Controls	Replace PLC and level transducer	$ 40,000	$ -	$ -	$ -	$ -	$ 23,397	$ -	$ -	$ 42,137
3.15	Building & Support	Water proofing and drainage rehabilitation	$ 100,000	$ -	$ -	$ -	$ 112,486	$ -	$ -	$ -	$ -
	Total Annual CAPEX		**$ 148,500**	**$ 1,042,500**	**$ 104,000**	**$ 689,520**	**$ 230,597**	**$ 233,972**	**$ 115,288**	**$ 1,732**	**$ 158,014**

Project Category: 4 Princeton Pump Station

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 67,750	$ 75,000	$ 31,200	$ 1,027,520	$ -	$ -	$ -	$ 77,925	$ 31,603

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
4.01	Electrical & Emergency Power	Replace automatic transfer switch	$ 150,000	$ 75,000							$ 75,000
4.02	Electrical & Emergency Power	Replace emergency generator	$ 225,000							$ 225,000	
4.03	Pumps	Feasibility study of alternatives to improve pump station	$ 30,000		$ 30,000						
4.04	Pumps	Replace with Package Pump Station	$ 700,000			$ 700,000					
4.05	Pumps	Rehbilitate pump station bypass system	$ 200,000			$ 200,000					
4.06	Building & Support	Assess and repair rainwater entering MCC room	$ 50,000			$ 50,000					

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
4.01	Electrical & Emergency Power	Replace automatic transfer switch	$ 150,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 158,014
4.02	Electrical & Emergency Power	Replace emergency generator	$ 225,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 389,627	$ -
4.03	Pumps	Feasibility study of alternatives to improve pump station	$ 30,000	$ -	$ 31,200	$ -	$ -	$ -	$ -	$ -	$ -
4.04	Pumps	Replace with Package Pump Station	$ 700,000	$ -	$ -	$ 757,120	$ -	$ -	$ -	$ -	$ -
4.05	Pumps	Rehbilitate pump station bypass system	$ 200,000	$ -	$ -	$ 216,320	$ -	$ -	$ -	$ -	$ -
4.06	Building & Support	Assess and repair rainwater entering MCC room	$ 50,000	$ -	$ -	$ 54,080	$ -	$ -	$ -	$ -	$ -
Total Annual CAPEX			**$ 67,750**	**$ 75,000**	**$ 31,200**	**$ 1,027,520**	**$ -**	**$ -**	**$ -**	**$ 77,925**	**$ 31,603**

Project Category: 5 Administration

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 76,000	$ -	$ 52,000	$ 54,080	$ 101,238	$ 70,192	$ 167,951	$ 135,071	$ 122,197

Unescaled Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
5.01	Administration Building	Routine building maintenance	$ 200,000			$ 50,000			$ 50,000	$ 50,000	$ 50,000
5.02	Digester Control Building	Routine building maintenance	$ 80,000				$ 20,000		$ 20,000	$ 20,000	$ 20,000
5.03	Effluent Pump Station Building	Routine building maintenance	$ 80,000				$ 20,000		$ 20,000	$ 20,000	$ 20,000
5.04	Mechanical Building #1	Routine building maintenance	$ 80,000					$ 20,000	$ 20,000	$ 20,000	$ 20,000
5.05	Mechanical Building #2	Routine building maintenance	$ 80,000					$ 20,000	$ 20,000	$ 20,000	$ 20,000
5.06	Maintenance Building	Routine building maintenance	$ 80,000					$ 20,000	$ 20,000	$ 20,000	$ 20,000
5.07	SCADA	Upgrade SCADA software	$ 150,000						$ 50,000	$ 50,000	$ 50,000
5.08	SCADA	Replace server	$ 60,000						$ 20,000	$ 20,000	$ 20,000
5.09	SCADA	Replace computer stations	$ 60,000						$ 20,000	$ 20,000	$ 20,000
5.10	Vehicles	Rehab/replace vehicle fleet	$ 650,000		$ 50,000		$ 50,000		$ 350,000	$ 150,000	$ 50,000

Project Category: 5 Administration

Escalated Costs
escalation rate *4%*
discount rate *4%*

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
5.01	Administration Building	Routine building maintenance	$ 200,000	$ -	$ -	$ 54,080	$ -	$ -	$ 71,166	$ 86,584	$ 105,342
5.02	Digester Control Building	Routine building maintenance	$ 80,000	$ -	$ -	$ -	$ 22,497	$ -	$ 28,466	$ 34,634	$ 42,137
5.03	Effluent Pump Station Building	Routine building maintenance	$ 80,000	$ -	$ -	$ -	$ 22,497	$ -	$ 28,466	$ 34,634	$ 42,137
5.04	Mechanical Building #1	Routine building maintenance	$ 80,000	$ -	$ -	$ -	$ -	$ 23,397	$ 28,466	$ 34,634	$ 42,137
5.05	Mechanical Building #2	Routine building maintenance	$ 80,000	$ -	$ -	$ -	$ -	$ 23,397	$ 28,466	$ 34,634	$ 42,137
5.06	Maintenance Building	Routine building maintenance	$ 80,000	$ -	$ -	$ -	$ -	$ 23,397	$ 28,466	$ 34,634	$ 42,137
5.07	SCADA	Upgrade SCADA software	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ 71,166	$ 86,584	$ 105,342
5.08	SCADA	Replace server	$ 60,000	$ -	$ -	$ -	$ -	$ -	$ 28,466	$ 34,634	$ 42,137
5.09	SCADA	Replace computer stations	$ 60,000	$ -	$ -	$ -	$ -	$ -	$ 28,466	$ 34,634	$ 42,137
5.10	Vehicles	Rehab/replace vehicle fleet	$ 650,000	$ -	$ 52,000	$ -	$ 56,243	$ -	$ 498,159	$ 259,751	$ 105,342
	Total Annual CAPEX		**$ 76,000**	**$ -**	**$ 52,000**	**$ 54,080**	**$ 101,238**	**$ 70,192**	**$ 167,951**	**$ 135,071**	**$ 122,197**

Project Category: 6 WWTP General

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 195,000	$ -	$ 156,000	$ 54,080	$ -	$ -	$ 1,053,251	$ -	$ -

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
6.01	Efficiency	Evaluate broad range of plant optimization options	$ 50,000			$ 50,000					
6.02	Recycle Water	Execute recycled water plan	$ 3,700,000						$ 3,700,000		
6.03	Safety	Complete comprehensive safety assessment and implement critical improvements	$ 150,000		$ 150,000						

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
6.01	Efficiency	Evaluate broad range of plant optimization options	$ 50,000	$ -	$ -	$ 54,080	$ -	$ -	$ -	$ -	$ -
6.02	Recycle Water	Execute recycled water plan	$ 3,700,000	$ -	$ -	$ -	$ -	$ -	$ 5,266,254	$ -	$ -
6.03	Safety	Complete comprehensive safety assessment and implement critical improvements	$ 150,000	$ -	$ 156,000	$ -	$ -	$ -	$ -	$ -	$ -
	Total Annual CAPEX		**$ 195,000**	**$ -**	**$ 156,000**	**$ 54,080**	**$ -**	**$ -**	**$ 1,053,251**	**$ -**	**$ -**

Project Category: 7 WWTP Power & Electrical

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 133,750	$ 500,000	$ 208,000	$ -	$ -	$ 1,052,873	$ 49,816	$ -	$ 379,233

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
7.01	Electrical & Emergency Power	Replace electrical switchgear	$ 500,000	$ 500,000							
7.02	Electrical & Emergency Power	Replace emergency generator	$ 1,800,000					$ 900,000			$ 900,000
7.03	Electrical & Emergency Power	Replace automatic transfer switch	$ 75,000						$ 75,000		
7.04	Electrical & Emergency Power	Replace line power utility breaker	$ 100,000		$ 100,000						
7.05	Electrical & Emergency Power	Replace emergency generator breaker	$ 100,000		$ 100,000						
7.06	Electrical & Emergency Power	Replace generator diesel fuel tank	$ 100,000						$ 100,000		

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
7.01	Electrical & Emergency Power	Replace electrical switchgear	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7.02	Electrical & Emergency Power	Replace emergency generator	$ 1,800,000	$ -	$ -	$ -	$ -	$ 1,052,873	$ -	$ -	$ 1,896,164
7.03	Electrical & Emergency Power	Replace automatic transfer switch	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ 106,748	$ -	$ -
7.04	Electrical & Emergency Power	Replace line power utility breaker	$ 100,000	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
7.05	Electrical & Emergency Power	Replace emergency generator breaker	$ 100,000	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
7.06	Electrical & Emergency Power	Replace generator diesel fuel tank	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ 142,331	$ -	$ -
Total Annual CAPEX			**$ 133,750**	**$ 500,000**	**$ 208,000**	**$ -**	**$ -**	**$ 1,052,873**	**$ 49,816**	**$ -**	**$ 379,233**

Project Category: 8 WWTP Headworks

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 12,250	$ -	$ -	$ 156,832	$ -	$ -	$ 28,466	$ -	$ -

Unescaled Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
8.01	HeadWorks	Replace screenings screw conveyor at headworks	$ 125,000			$ 125,000					
8.02	HeadWorks	Rehabilitate/replace manual bar screen	$ 20,000			$ 20,000					
8.03	Headworks	Replace automatic bar screen drives	$ 100,000						$ 100,000		

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
8.01	HeadWorks	Replace screenings screw conveyor at headworks	$ 125,000	$ -	$ -	$ 135,200	$ -	$ -	$ -	$ -	$ -
8.02	HeadWorks	Rehabilitate/replace manual bar screen	$ 20,000	$ -	$ -	$ 21,632	$ -	$ -	$ -	$ -	$ -
8.03	Headworks	Replace automatic bar screen drives	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ 142,331	$ -	$ -
Total Annual CAPEX			**$ 12,250**	**$ -**	**$ -**	**$ 156,832**	**$ -**	**$ -**	**$ 28,466**	**$ -**	**$ -**

Project Category: 9 WWTP Influent Pumping

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 49,000	$ -	$ 156,000	$ -	$ 89,989	$ -	$ 71,166	$ -	$ 210,685

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
9.01	Influent Pumping	Replace influent pumps	$ 250,000						$ 250,000		
9.02	Influent Pumping	Rehabilitate/replace influent wet well	$ 500,000								$ 500,000
9.03	Influent Pumping	Replace electrical wires and conduits to all influent pumps	$ 100,000		$ 100,000						
9.04	Influent Pumping	Improve influent pumping operation by adding check valves, HOA, and VFDs where needed	$ 50,000		$ 50,000						
9.05	Influent Pumping	Influent wet well inspection and repair	$ 80,000				$ 80,000				

Escalated Costs

escalation rate *4%*

discount rate *4%*

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
9.01	Influent Pumping	Replace influent pumps	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ 355,828	$ -	$ -
9.02	Influent Pumping	Rehabilitate/replace influent wet well	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,053,425
9.03	Influent Pumping	Replace electrical wires and conduits to all influent pumps	$ 100,000	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
9.04	Influent Pumping	Improve influent pumping operation by adding check valves, HOA, and VFDs where needed	$ 50,000	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
9.05	Influent Pumping	Influent wet well inspection and repair	$ 80,000	$ -	$ -	$ -	$ 89,989	$ -	$ -	$ -	$ -
	Total Annual CAPEX		**$ 49,000**	**$ -**	**$ 156,000**	**$ -**	**$ 89,989**	**$ -**	**$ 71,166**	**$ -**	**$ 210,685**

Project Category: 10 WWTP Primary Treatment

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 62,001	$ -	$ 67,600	$ 54,080	$ 5,648	$ 310,013	$ 51,239	$ -	$ 284,425

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
10.01	Primary Treatment	Replace grit chamber gates at splitter box	$ 15,000		$ 15,000						
10.02	Primary Treatment	Rehabilitate skimmer troughs	$ 105,021		$ 50,000	$ 50,000	$ 5,021				
10.03	Primary Treatment	Upgrade/replace grit blowers, as needed	$ 150,000					$ 75,000			$ 75,000
10.04	Primary Treatment	Replace chain & flights, collector gear reducer, and weirs in primary clarifier	$ 150,000					$ 150,000			
10.05	Primary Treatment	Replace primary scum pump	$ 40,000					$ 40,000			
10.06	Primary Treatment	Replace grit pumps and appurtenances	$ 90,000						$ 90,000		
10.07	Primary Treatment	Replace primary sludge pumps	$ 50,000						$ 50,000		
10.08	Primary Treatment	Replace grit washer	$ 40,000						$ 40,000		
10.09	Primary Treatment	Rehabilitate grit chambers	$ 100,000								$ 100,000
10.1	Primary Treatment	Rehabilitate primary clarifier tanks	$ 500,000								$ 500,000

Project Category: 10 WWTP Primary Treatment

Escalated Costs
escalation rate *4%*
discount rate *4%*

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
10.01	Primary Treatment	Replace grit chamber gates at splitter box	$ 15,000	$ -	$ 15,600	$ -	$ -	$ -	$ -	$ -	$ -
10.02	Primary Treatment	Rehabilitate skimmer troughs	$ 105,021	$ -	$ 52,000	$ 54,080	$ 5,648	$ -	$ -	$ -	$ -
10.03	Primary Treatment	Upgrade/replace grit blowers, as needed	$ 150,000	$ -	$ -	$ -	$ -	$ 87,739	$ -	$ -	$ 158,014
10.04	Primary Treatment	Replace chain & flights, collector gear reducer, and weirs in primary clarifier	$ 150,000	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ -	$ -
10.05	Primary Treatment	Replace primary scum pump	$ 40,000	$ -	$ -	$ -	$ -	$ 46,794	$ -	$ -	$ -
10.06	Primary Treatment	Replace grit pumps and appurtenances	$ 90,000	$ -	$ -	$ -	$ -	$ -	$ 128,098	$ -	$ -
10.07	Primary Treatment	Replace primary sludge pumps	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ 71,166	$ -	$ -
10.08	Primary Treatment	Replace grit washer	$ 40,000	$ -	$ -	$ -	$ -	$ -	$ 56,932	$ -	$ -
10.09	Primary Treatment	Rehabilitate grit chambers	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 210,685
10.1	Primary Treatment	Rehabilitate primary clarifier tanks	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,053,425
	Total Annual CAPEX		**$ 62,001**	**$ -**	**$ 67,600**	**$ 54,080**	**$ 5,648**	**$ 310,013**	**$ 51,239**	**$ -**	**$ 284,425**

Project Category: 11 WWTP Secondary Treatment

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 77,500	$ -	$ 572,000	$ 162,240	$ -	$ 175,479	$ -	$ 103,901	$ 168,548

Unescaled Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
11.01	Secondary Treatment	Rehabilitate backup aeration basin	$ 300,000		$ 150,000	$ 150,000					
11.02	Secondary Treatment	Replace aeration blowers and assess feasibility of connecting grit air to process air supply	$ 800,000		$ 400,000						$ 400,000
11.03	Secondary Treatment	Replace/rehabilitate secondary clarifier drive mechanism	$ 150,000					$ 150,000			
11.04	Secondary Treatment	Replace RAS pumps	$ 200,000							$ 200,000	
11.05	Secondary Treatment	Replace WAS pumps	$ 100,000							$ 100,000	

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
11.01	Secondary Treatment	Rehabilitate backup aeration basin	$ 300,000	$ -	$ 156,000	$ 162,240	$ -	$ -	$ -	$ -	$ -
11.02	Secondary Treatment	Replace aeration blowers and assess feasibility of connecting grit air to process air supply	$ 800,000	$ -	$ 416,000	$ -	$ -	$ -	$ -	$ -	$ 842,740
11.03	Secondary Treatment	Replace/rehabilitate secondary clarifier drive mechanism	$ 150,000	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ -	$ -
11.04	Secondary Treatment	Replace RAS pumps	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 346,335	$ -
11.05	Secondary Treatment	Replace WAS pumps	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 173,168	$ -
	Total Annual CAPEX		**$ 77,500**	**$ -**	**$ 572,000**	**$ 162,240**	**$ -**	**$ 175,479**	**$ -**	**$ 103,901**	**$ 168,548**

Project Category: 12 WWTP Disinfection

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 15,000	$ -	$ 104,000	$ 54,080	$ -	$ -	$ -	$ -	$ 63,205

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
12.01	Disinfection	Perform disinfection alternatives analysis	$ 50,000			$ 50,000					
12.02	Disinfection	Replace chemical metering pumps	$ 150,000								$ 150,000
12.03	Disinfection	Install shade canopy for chemical storage and pump	$ 50,000		$ 50,000						
12.04	Disinfection	Fix chlorine injection issues	$ 50,000		$ 50,000						

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
12.01	Disinfection	Perform disinfection alternatives analysis	$ 50,000	$ -	$ -	$ 54,080	$ -	$ -	$ -	$ -	$ -
12.02	Disinfection	Replace chemical metering pumps	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 316,027
12.03	Disinfection	Install shade canopy for chemical storage and pump	$ 50,000	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
12.04	Disinfection	Fix chlorine injection issues	$ 50,000	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
Total Annual CAPEX			**$ 15,000**	**$ -**	**$ 104,000**	**$ 54,080**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 63,205**

Project Category: 13 WWTP Effluent Pumping

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 23,500	$ -	$ 20,800	$ -	$ 168,730	$ -	$ 85,399	$ -	$ -

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
13.01	Effluent Pumping	Develop emergency plan for pump outage and develop plan for pump replacements	$ 20,000		$ 20,000						
13.02	Effluent Pumping	Replace effluent pumps	$ 450,000				$ 150,000		$ 300,000		

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
13.01	Effluent Pumping	Develop emergency plan for pump outage and develop plan for pump replacements	$ 20,000	$ -	$ 20,800	$ -	$ -	$ -	$ -	$ -	$ -
13.02	Effluent Pumping	Replace effluent pumps	$ 450,000	$ -	$ -	$ -	$ 168,730	$ -	$ 426,994	$ -	$ -
	Total Annual CAPEX		**$ 23,500**	**$ -**	**$ 20,800**	**$ -**	**$ 168,730**	**$ -**	**$ 85,399**	**$ -**	**$ -**

Project Category: 14 WWTP Anaerobic Digestion

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 157,700	$ -	$ 104,000	$ 125,466	$ -	$ -	$ 495,597	$ 351,877	$ 76,268

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
14.01	Anaerobic Digestion	Install VFDs on sludge transfer pumps 1 and 2	$ 100,000			$ 100,000					
14.02	Anaerobic Digestion	Replace sludge mixing, recirculation, and transfer pumps	$ 150,000						$ 150,000		
14.03	Anaerobic Digestion	Install stainless Steel Heat Exchanger and Shell	$ 100,000		$ 100,000						
14.04	Anaerobic Digestion	New burner system for Boilers	$ 55,000						$ 55,000		
14.05	Anaerobic Digestion	Rehabilitate/replace sludge holding tank	$ 500,000						$ 500,000		
14.06	Anaerobic Digestion	Rehabilitate/replace digesters	$ 2,000,000						$ 1,000,000	$ 1,000,000	
14.07	Anaerobic Digestion	Assess beneficial sludge reuse	$ 20,000						$ 20,000		
14.08	Anaerobic Digestion	Replace hot water boilers	$ 125,000								$ 125,000
14.09	Anaerobic Digestion	Replace boiler circulation pumps	$ 20,000								$ 20,000
14.10	Anaerobic Digestion	Replace heat exchanger circulation pumps	$ 20,000								$ 20,000
	Anaerobic Digestion	Replace gas blowers	$ 64,000			$ 16,000			$ 16,000	$ 16,000	$ 16,000

Project Category: 14 WWTP Anaerobic Digestion

Escalated Costs
escalation rate *4%*
discount rate *4%*

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
14.01	Anaerobic Digestion	Install VFDs on sludge transfer pumps 1 and 2	$ 100,000	$ -	$ -	$ 108,160	$ -	$ -	$ -	$ -	$ -
14.02	Anaerobic Digestion	Replace sludge mixing, recirculation, and transfer pumps	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ 213,497	$ -	$ -
14.03	Anaerobic Digestion	Install stainless Steel Heat Exchanger and Shell	$ 100,000	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
14.04	Anaerobic Digestion	New burner system for Boilers	$ 55,000	$ -	$ -	$ -	$ -	$ -	$ 78,282	$ -	$ -
14.05	Anaerobic Digestion	Rehabilitate/replace sludge holding tank	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ 711,656	$ -	$ -
14.06	Anaerobic Digestion	Rehabilitate/replace digesters	$ 2,000,000	$ -	$ -	$ -	$ -	$ -	$ 1,423,312	$ 1,731,676	$ -
14.07	Anaerobic Digestion	Assess beneficial sludge reuse	$ 20,000	$ -	$ -	$ -	$ -	$ -	$ 28,466	$ -	$ -
14.08	Anaerobic Digestion	Replace hot water boilers	$ 125,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 263,356
14.09	Anaerobic Digestion	Replace boiler circulation pumps	$ 20,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,137
14.10	Anaerobic Digestion	Replace heat exchanger circulation pumps	$ 20,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,137
	Anaerobic Digestion	Replace gas blowers	$ 64,000	$ -	$ -	$ 17,306	$ -	$ -	$ 22,773	$ 27,707	$ 33,710
	Total Annual CAPEX		**$ 157,700**	**$ -**	**$ 104,000**	**$ 125,466**	**$ -**	**$ -**	**$ 495,597**	**$ 351,877**	**$ 76,268**

Project Category: 15 WWTP Sludge Dewatering

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 46,500	$ 100,000	$ 468,000	$ 108,160	$ -	$ -	$ 51,239	$ 34,634	$ -

Unescalated Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
15.01	Sludge Dewatering	Rehabilitate sludge dewatering bldg: crane, rollup door, floor etc.	$ 150,000		$ 150,000						
15.02	Sludge Dewatering	Purchase critical spare parts for BFP/main conveyor and prepare emergency plan	$ 100,000			$ 100,000					
15.03	Sludge Dewatering	Replace Forced air ventilation with appropriate exhaust system in Press Room	$ 100,000	$ 100,000							
15.04	Sludge Dewatering	Install WAS gravity thickener and address storage shortage as needed	$ 300,000		$ 300,000						
15.05	Sludge Dewatering	Refurbish belt filter press	$ 180,000						$ 180,000		
15.06	Sludge Dewatering	Replace belt filter press feed pumps, hydraulic pump, and spray pumps	$ 100,000							$ 100,000	

Project Category: 15 WWTP Sludge Dewatering

Escalated Costs
escalation rate *4%*
discount rate *4%*

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
15.01	Sludge Dewatering	Rehabilitate sludge dewatering bldg: crane, rollup door, floor etc.	$ 150,000	$ -	$ 156,000	$ -	$ -	$ -	$ -	$ -	$ -
15.02	Sludge Dewatering	Purchase critical spare parts for BFP/main conveyor and prepare emergency plan	$ 100,000	$ -	$ -	$ 108,160	$ -	$ -	$ -	$ -	$ -
15.03	Sludge Dewatering	Replace Forced air ventilation with appropriate exhaust system in Press Room	$ 100,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15.04	Sludge Dewatering	Install WAS gravity thickener and address storage shortage as needed	$ 300,000	$ -	$ 312,000	$ -	$ -	$ -	$ -	$ -	$ -
15.05	Sludge Dewatering	Refurbish belt filter press	$ 180,000	$ -	$ -	$ -	$ -	$ -	$ 256,196	$ -	$ -
15.06	Sludge Dewatering	Replace belt filter press feed pumps, hydraulic pump, and spray pumps	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 173,168	$ -
	Total Annual CAPEX		**$ 46,500**	**$ 100,000**	**$ 468,000**	**$ 108,160**	**$ -**	**$ -**	**$ 51,239**	**$ 34,634**	**$ -**

Project Category: 16 WWTP Digester Gas

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 28,500	$ -	$ 520,000	$ 54,080	$ -	$ -	$ -	$ 6,927	$ -

Unescaled Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
16.01	Digester Gas System	Replace digester gas flare and accessories	$ 500,000		$ 500,000						
16.02	Digester Gas System	Replace digester gas valves and blowers	$ 40,000			$ 20,000				$ 20,000	
16.03	Digester Gas System	Assess beneficial digester gas reuse and options for improvement	$ 30,000			$ 30,000					

Escalated Costs

escalation rate *4%*

discount rate *4%*

n				*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
16.01	Digester Gas System	Replace digester gas flare and accessories	$ 500,000	$ -	$ 520,000	$ -	$ -	$ -	$ -	$ -	$ -
16.02	Digester Gas System	Replace digester gas valves and blowers	$ 40,000	$ -	$ -	$ 21,632	$ -	$ -	$ -	$ 34,634	$ -
16.03	Digester Gas System	Assess beneficial digester gas reuse and options for improvement	$ 30,000	$ -	$ -	$ 32,448	$ -	$ -	$ -	$ -	$ -
Total Annual CAPEX			**$ 28,500**	**$ -**	**$ 520,000**	**$ 54,080**	**$ -**	**$ -**	**$ -**	**$ 6,927**	**$ -**

Project Category: 17 WWTP Water Supply & Piping

Total Annual CAPEX	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	$ 135,500	$ -	$ -	$ 75,712	$ 179,978	$ -	$ 62,626	$ 765,401	$ 21,068

Unescaled Costs *2018 Dollars Estimates*

	Category	Project	Total 2018 Dollars	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
17.01	Water Supply and Piping Systems	Replace air gap tank	$ 10,000						$ 10,000		
17.02	Water Supply and Piping Systems	Replace No. 1 and No. 2 water pumps and tanks	$ 160,000						$ 160,000		
17.03	Water Supply and Piping Systems	Replace No. 3 water pumps	$ 320,000				$ 160,000			$ 160,000	
17.04	Water Supply and Piping Systems	Replace galvanized piping throughout plant	$ 200,000			$ 50,000			$ 50,000	$ 50,000	$ 50,000
17.05	Water Supply and Piping Systems	Address water loss issue from municipal supply line	$ 20,000			$ 20,000					
17.06	Water Supply and Piping Systems	Reroute high pressure fire and domestic line to safer location away from private properties	$ 2,000,000							$ 2,000,000	

Project Category: 17 WWTP Water Supply & Piping

Escalated Costs
escalation rate 4%
discount rate 4%

	n			*0*	*1*	*2*	*3*	*4*	*9*	*14*	*19*
	Category	**Project**	**Total 2018 Dollars**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023 to 2027**	**2028 to 2032**	**2033 to 2037**
17.01	Water Supply and Piping Systems	Replace air gap tank	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ 14,233	$ -	$ -
17.02	Water Supply and Piping Systems	Replace No. 1 and No. 2 water pumps and tanks	$ 160,000	$ -	$ -	$ -	$ -	$ -	$ 227,730	$ -	$ -
17.03	Water Supply and Piping Systems	Replace No. 3 water pumps	$ 320,000	$ -	$ -	$ -	$ 179,978	$ -	$ -	$ 277,068	$ -
17.04	Water Supply and Piping Systems	Replace galvanized piping throughout plant	$ 200,000	$ -	$ -	$ 54,080	$ -	$ -	$ 71,166	$ 86,584	$ 105,342
17.05	Water Supply and Piping Systems	Address water loss issue from municipal supply line	$ 20,000	$ -	$ -	$ 21,632	$ -	$ -	$ -	$ -	$ -
17.06	Water Supply and Piping Systems	Reroute high pressure fire and domestic line to safer location away from private properties	$ 2,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,463,353	$ -
	Total Annual CAPEX		**$ 135,500**	**$ -**	**$ -**	**$ 75,712**	**$ 179,978**	**$ -**	**$ 62,626**	**$ 765,401**	**$ 21,068**

Attachment 3 – Project Expenditure Schedule

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2018	1.01	Force Mains	Granada Force Main	Replace deteriorated sections	$ 500,000
	2.02	Montara Pump Station	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 75,000
	3.01	Portola Pump Station	Storage	Replace surge tank	$ 75,000
	3.02	Portola Pump Station	Storage	Expand wet weather storage	$ 690,000
	3.05	Portola Pump Station	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 75,000
	3.08	Portola Pump Station	Pumps	Replace pumps 1 & 2 with chopper pumps	$ 202,500
	4.01	Princeton Pump Station	Electrical & Emergency Power	Replace automatic transfer switch	$ 75,000
	7.01	WWTP	Electrical & Emergency Power	Replace electrical switchgear	$ 500,000
	15.03	WWTP	Sludge Dewatering	Replace Forced air ventilation with appropriate exhaust system in Press Room	$ 100,000

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2019	1.02	Force Mains	Princeton Force Main	Replace deteriorated sections	$ 1,872,000
	2.07	Montara Pump Station	Pumps	Install grit chamber	$ 130,000
	3.03	Portola Pump Station	Building & Support	Install proper hatches	$ 52,000
	3.03	WWTP	Safety	Complete comprehensive safety assessment and implement critical improvements	$ 156,000
	3.12	Portola Pump Station	Chemical	Recondition odor control system	$ 52,000
	4.03	Princeton Pump Station	Pumps	Feasibility study of alternatives to improve pump station	$ 31,200
	5.10	Admin	Vehicles	Rehab/replace vehicle fleet	$ 52,000
	7.04	WWTP	Electrical & Emergency Power	Replace line power utility breaker	$ 104,000
	7.05	WWTP	Electrical & Emergency Power	Replace emergency generator breaker	$ 104,000
	9.03	WWTP	Influent Pumping	Replace electrical wires and conduits to all influent pumps	$ 104,000
	9.04	WWTP	Influent Pumping	Improve influent pumping operation by adding check valves, HOA, and VFDs where needed	$ 52,000
	10.01	WWTP	Primary Treatment	Replace grit chamber gates at splitter box	$ 15,600
	10.02	WWTP	Primary Treatment	Rehabilitate skimmer troughs	$ 52,000
	11.01	WWTP	Secondary Treatment	Rehabilitate backup aeration basin	$ 156,000
	11.02	WWTP	Secondary Treatment	Replace aeration blowers and assess feasibility of connecting grit air to process air supply	$ 416,000
	12.03	WWTP	Disinfection	Install shade canopy for chemical storage and pump	$ 52,000
	12.04	WWTP	Disinfection	Fix chlorine injection issues	$ 52,000
	13.01	WWTP	Effluent Pumping	Develop emergency plan for pump outage and develop plan for pump replacements	$ 20,800
	14.03	WWTP	Anaerobic Digestion	Install stainless Steel Heat Exchanger and Shell	$ 104,000
	15.01	WWTP	Sludge Dewatering	Rehabilitate sludge dewatering bldg: crane, rollup door, floor etc.	$ 156,000
	15.04	WWTP	Sludge Dewatering	Install WAS gravity thickener and address storage shortage as needed	$ 312,000
	16.01	WWTP	Digester Gas System	Replace digester gas flare and accessories	$ 520,000

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2020	1.03	Force Mains	Montara Force Main	Conduct condition assessment	$ 108,160
	2.01	Montara Pump Station	Electrical & Emergency Power	Repair damaged exterior electrical conduits	$ 81,120
	2.03	Montara Pump Station	Electrical & Emergency Power	Replace emergency generator	$ 243,360
	2.08	Montara Pump Station	Pumps	Rehbilitate pump station bypass system	$ 216,320
	2.12	Montara Pump Station	Storage	Routine maintenance of 400,000 gal Walker tank, fencing, and gates	$ 32,448
	3.04	Portola Pump Station	Building & Support	Rehabilitate deteriorated concrete in wet well	$ 10,816
	3.06	Portola Pump Station	Electrical & Emergency Power	Replace emergency generator	$ 243,360
	3.07	Portola Pump Station	Pumps	Rehbilitate pump station bypass system	$ 216,320
	3.08	Portola Pump Station	Pumps	Replace pumps 1 & 2 with chopper pumps	$ 219,024
	4.04	Princeton Pump Station	Pumps	Replace with Package Pump Station	$ 757,120
	4.05	Princeton Pump Station	Pumps	Rehbilitate pump station bypass system	$ 216,320
	4.06	Princeton Pump Station	Building & Support	Assess and repair rainwater entering MCC room	$ 54,080
	5.01	Admin	Administration Building	Routine building maintenance	$ 54,080
	6.01	WWTP	Efficiency	Evaluate broad range of plant optimization options	$ 54,080
	8.01	WWTP	HeadWorks	Replace screenings screw conveyor at headworks	$ 135,200
	8.02	WWTP	HeadWorks	Rehabilitate/replace manual bar screen	$ 21,632
	10.02	WWTP	Primary Treatment	Rehabilitate skimmer troughs	$ 54,080
	11.01	WWTP	Secondary Treatment	Rehabilitate backup aeration basin	$ 162,240
	12.01	WWTP	Disinfection	Perform disinfection alternatives analysis	$ 54,080
	14.01	WWTP	Anaerobic Digestion	Install VFDs on sludge transfer pumps 1 and 2	$ 108,160
	15.02	WWTP	Sludge Dewatering	Purchase critical spare parts for BFP/main conveyor and prepare emergency plan	$ 108,160
	16.02	WWTP	Digester Gas System	Replace digester gas valves and blowers	$ 21,632
	16.03	WWTP	Digester Gas System	Assess beneficial digester gas reuse and options for improvement	$ 32,448
	17.04	WWTP	Water Supply and Piping Systems	Replace galvanized piping throughout plant	$ 54,080
	17.05	WWTP	Water Supply and Piping Systems	Address water loss issue from municipal supply line	$ 21,632

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2021	1.04	Force Mains	Montara Force Main	Replace pipeline	$ 2,307,471
	2.04	Montara Pump Station	Electrical & Emergency Power	Repair/replace front door and generator room door frames	$ 44,995
	2.05	Montara Pump Station	Pumps	Replace pumps 1 & 2	$ 224,973
	2.09	Montara Pump Station	Metering & Controls	Replace PLC	$ 11,249
	2.11	Montara Pump Station	Chemical	Evaluate chemical storage tank and metering pumps, potentially remove storage and replace with tablet system	$ 22,497
	2.13	Montara Pump Station	Building and Support	Install proper hatches	$ 56,243
	2.14	Montara Pump Station	Building and Support	Fix roof and demo old chemical building	$ 56,243
	3.04	Portola Pump Station	Building & Support	Rehabilitate deteriorated concrete in wet well	$ 112,486
	3.10	Portola Pump Station	Chemical	Evaluate condition of fresh water tank and appurtenances	$ 5,624
	3.15	Portola Pump Station	Building & Support	Water proofing and drainage rehabilitation	$ 112,486
	5.02	Admin	Digester Control Building	Routine building maintenance	$ 22,497
	5.03	Admin	Effluent Pump Station Building	Routine building maintenance	$ 22,497
	5.10	Admin	Vehicles	Rehab/replace vehicle fleet	$ 56,243
	9.05	WWTP	Influent Pumping	Influent wet well inspection and repair	$ 89,989
	10.02	WWTP	Primary Treatment	Rehabilitate skimmer troughs	$ 5,648
	13.02	WWTP	Effluent Pumping	Replace effluent pumps	$ 168,730
	17.03	WWTP	Water Supply and Piping Systems	Replace No. 3 water pumps	$ 179,978

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2022	1.04	Force Mains	Montara Force Main	Replace pipeline	$ 2,399,769
	2.05	Montara Pump Station	Pumps	Replace pumps 1 & 2	$ 233,972
	2.10	Montara Pump Station	Metering & Controls	Replace flowmeter	$ 175,479
	3.11	Portola Pump Station	Chemical	Evaluate chemical storage, strategy, and odor control system	$ 35,096
	3.13	Portola Pump Station	Metering & Controls	Replace flowmeter	$ 175,479
	3.14	Portola Pump Station	Metering & Controls	Replace PLC and level transducer	$ 23,397
	5.04	Admin	Mechanical Building #1	Routine building maintenance	$ 23,397
	5.05	Admin	Mechanical Building #2	Routine building maintenance	$ 23,397
	5.06	Admin	Maintenance Building	Routine building maintenance	$ 23,397
	7.02	WWTP	Electrical & Emergency Power	Replace emergency generator	$ 1,052,873
	10.03	WWTP	Primary Treatment	Upgrade/replace grit blowers, as needed	$ 87,739
	10.04	WWTP	Primary Treatment	Replace chain & flights, collector gear reducer, and weirs in primary clarifier	$ 175,479
	10.05	WWTP	Primary Treatment	Replace primary scum pump	$ 46,794
	11.03	WWTP	Secondary Treatment	Replace/rehabilitate secondary clarifier drive mechanism	$ 175,479

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2023-2027	1.04	Force Mains	Montara Force Main	Replace pipeline	$ 2,919,686
	2.12	Montara Pump Station	Storage	Routine maintenance of 400,000 gal Walker tank, fencing, and gates	$ 14,233
	3.09	Portola Pump Station	Pumps	Replace pumps 3 & 4	$ 569,325
	3.12	Portola Pump Station	Chemical	Recondition odor control system	$ 7,117
	5.01	Admin	Administration Building	Routine building maintenance	$ 71,166
	5.02	Admin	Digester Control Building	Routine building maintenance	$ 28,466
	5.03	Admin	Effluent Pump Station Building	Routine building maintenance	$ 28,466
	5.04	Admin	Mechanical Building #1	Routine building maintenance	$ 28,466
	5.05	Admin	Mechanical Building #2	Routine building maintenance	$ 28,466
	5.06	Admin	Maintenance Building	Routine building maintenance	$ 28,466
	5.07	Admin	SCADA	Upgrade SCADA software	$ 71,166
	5.08	Admin	SCADA	Replace server	$ 28,466
	5.09	Admin	SCADA	Replace computer stations	$ 28,466
	5.10	Admin	Vehicles	Rehab/replace vehicle fleet	$ 498,159
	6.02	WWTP	Recycle Water	Execute recycled water plan	$ 5,266,254
	7.03	WWTP	Electrical & Emergency Power	Replace automatic transfer switch	$ 106,748
	7.06	WWTP	Electrical & Emergency Power	Replace generator diesel fuel tank	$ 142,331
	8.03	WWTP	Headworks	Replace automatic bar screen drives	$ 142,331
	9.01	WWTP	Influent Pumping	Replace influent pumps	$ 355,828
	10.06	WWTP	Primary Treatment	Replace grit pumps and appurtenances	$ 128,098
	10.07	WWTP	Primary Treatment	Replace primary sludge pumps	$ 71,166
	10.08	WWTP	Primary Treatment	Replace grit washer	$ 56,932
	13.02	WWTP	Effluent Pumping	Replace effluent pumps	$ 426,994
	14.02	WWTP	Anaerobic Digestion	Replace sludge mixing, recirculation, and transfer pumps	$ 213,497
	14.04	WWTP	Anaerobic Digestion	New burner system for Boilers	$ 78,282
	14.05	WWTP	Anaerobic Digestion	Rehabilitate/replace sludge holding tank	$ 711,656
	14.06	WWTP	Anaerobic Digestion	Rehabilitate/replace digesters	$ 1,423,312
	14.07	WWTP	Anaerobic Digestion	Assess beneficial sludge reuse	$ 28,466
	15.05	WWTP	Sludge Dewatering	Refurbish belt filter press	$ 256,196
	17.01	WWTP	Water Supply and Piping Systems	Replace air gap tank	$ 14,233
	17.02	WWTP	Water Supply and Piping Systems	Replace No. 1 and No. 2 water pumps and tanks	$ 227,730
	17.04	WWTP	Water Supply and Piping Systems	Replace galvanized piping throughout plant	$ 71,166

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2028 to 2032	2.10	Montara Pump Station	Metering & Controls	Replace flowmeter	$ 259,751
	2.12	Montara Pump Station	Storage	Routine maintenance of 400,000 gal Walker tank, fencing, and gates	$ 17,317
	3.12	Portola Pump Station	Chemical	Recondition odor control system	$ 8,658
	4.02	Princeton Pump Station	Electrical & Emergency Power	Replace emergency generator	$ 389,627
	5.01	Admin	Administration Building	Routine building maintenance	$ 86,584
	5.02	Admin	Digester Control Building	Routine building maintenance	$ 34,634
	5.03	Admin	Effluent Pump Station Building	Routine building maintenance	$ 34,634
	5.04	Admin	Mechanical Building #1	Routine building maintenance	$ 34,634
	5.05	Admin	Mechanical Building #2	Routine building maintenance	$ 34,634
	5.06	Admin	Maintenance Building	Routine building maintenance	$ 34,634
	5.07	Admin	SCADA	Upgrade SCADA software	$ 86,584
	5.08	Admin	SCADA	Replace server	$ 34,634
	5.09	Admin	SCADA	Replace computer stations	$ 34,634
	5.10	Admin	Vehicles	Rehab/replace vehicle fleet	$ 259,751
	11.04	WWTP	Secondary Treatment	Replace RAS pumps	$ 346,335
	11.05	WWTP	Secondary Treatment	Replace WAS pumps	$ 173,168
	14.06	WWTP	Anaerobic Digestion	Rehabilitate/replace digesters	$ 1,731,676
	15.06	WWTP	Sludge Dewatering	Replace belt filter press feed pumps, hydraulic pump, and spray pumps	$ 173,168
	16.02	WWTP	Digester Gas System	Replace digester gas valves and blowers	$ 34,634
	17.03	WWTP	Water Supply and Piping Systems	Replace No. 3 water pumps	$ 277,068
	17.04	WWTP	Water Supply and Piping Systems	Replace galvanized piping throughout plant	$ 86,584
	17.06	WWTP	Water Supply and Piping Systems	Reroute high pressure fire and domestic line to safer location away from private properties	$ 3,463,353

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
2033 to 2037	1.01	Force Mains	Granada Force Main	Replace deteriorated sections	$ 1,053,425
	2.01	Montara Pump Station	Electrical & Emergency Power	Repair damaged exterior electrical conduits	$ 105,342
	2.02	Montara Pump Station	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 158,014
	2.03	Montara Pump Station	Electrical & Emergency Power	Replace emergency generator	$ 474,041
	2.04	Montara Pump Station	Electrical & Emergency Power	Repair/replace front door and generator room door frames	$ 84,274
	2.06	Montara Pump Station	Pumps	Replace chopper pump 3	$ 316,027
	2.09	Montara Pump Station	Metering & Controls	Replace PLC	$ 21,068
	2.12	Montara Pump Station	Storage	Routine maintenance of 400,000 gal Walker tank, fencing, and gates	$ 21,068
	3.05	Portola Pump Station	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	$ 158,014
	3.06	Portola Pump Station	Electrical & Emergency Power	Replace emergency generator	$ 474,041
	3.10	Portola Pump Station	Chemical	Evaluate condition of fresh water tank and appurtenances	$ 10,534
	3.12	Portola Pump Station	Chemical	Recondition odor control system	$ 105,342
	3.14	Portola Pump Station	Metering & Controls	Replace PLC and level transducer	$ 42,137
	4.01	Princeton Pump Station	Electrical & Emergency Power	Replace automatic transfer switch	$ 158,014
	5.01	Admin	Administration Building	Routine building maintenance	$ 105,342
	5.02	Admin	Digester Control Building	Routine building maintenance	$ 42,137
	5.03	Admin	Effluent Pump Station Building	Routine building maintenance	$ 42,137
	5.04	Admin	Mechanical Building #1	Routine building maintenance	$ 42,137
	5.05	Admin	Mechanical Building #2	Routine building maintenance	$ 42,137
	5.06	Admin	Maintenance Building	Routine building maintenance	$ 42,137
	5.07	Admin	SCADA	Upgrade SCADA software	$ 105,342
	5.08	Admin	SCADA	Replace server	$ 42,137
	5.09	Admin	SCADA	Replace computer stations	$ 42,137
	5.10	Admin	Vehicles	Rehab/replace vehicle fleet	$ 105,342
	7.02	WWTP	Electrical & Emergency Power	Replace emergency generator	$ 1,896,164
	9.02	WWTP	Influent Pumping	Rehabilitate/replace influent wet well	$ 1,053,425
	10.03	WWTP	Primary Treatment	Upgrade/replace grit blowers, as needed	$ 158,014
	10.09	WWTP	Primary Treatment	Rehabilitate grit chambers	$ 210,685
	10.10	WWTP	Primary Treatment	Rehabilitate primary clarifier tanks	$ 1,053,425
	11.02	WWTP	Secondary Treatment	Replace aeration blowers and assess feasibility of connecting grit air to process air supply	$ 842,740
	12.02	WWTP	Disinfection	Replace chemical metering pumps	$ 316,027
	14.08	WWTP	Anaerobic Digestion	Replace hot water boilers	$ 263,356
	14.09	WWTP	Anaerobic Digestion	Replace boiler circulation pumps	$ 42,137
	14.10	WWTP	Anaerobic Digestion	Replace heat exchanger circulation pumps	$ 42,137

Project Schedule

Year	Project Number	Project Category		Project	Cost with Inflation
	17.04	WWTP	Water Supply and Piping Systems	Replace galvanized piping throughout plant	$ 105,342

Attachment 4 – Full Project List

Full Project List

	Project Number	Category		Project	Asset Age (years)	Asset Useful Life (years)	Project Reasoning	2017 5-Year Infrastructure Plan Project Number	Benefit	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	1.01	Force Mains	Granada Force Main	Replace deteriorated sections	34	15	Known vulnerability to breaks, resulting in regulatory violations, human health risks, and environmental damage	2.1 (majority complete)	Reliability	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,053,425
	1.02	Force Mains	Princeton Force Main	Replace deteriorated sections	34	15	Known vulnerability to breaks, resulting in regulatory violations, human health risks, and environmental damage		Reliability	$ -	$ 1,872,000	$ -	$ -	$ -	$ -	$ -	$ -
	1.03	Force Mains	Montara Force Main	Conduct condition assessment	34	15	Condition assessment has never been performed		Reliability	$ -	$ -	$ 108,160	$ -	$ -	$ -	$ -	$ -
	1.04	Force Mains	Montara Force Main	Replace pipeline	34	15	Extent of work depends on condition assessment		Reliability	$ -	$ -	$ -	$ 2,307,471	$ 2,399,769	$ 2,919,686	$ -	$ -
	2.01	Montara Pump Station	Electrical & Emergency Power	Repair damaged exterior electrical conduits	34	15	Damaged asset and known vulnerability	2.17	Reliability	$ -	$ -	$ 81,120	$ -	$ -	$ -	$ -	$ 105,342
	2.02	Montara Pump Station	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	34	15	Asset past useful life and known vulnerability; critical to emergency operations	1.5	Reliability	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 158,014
	2.03	Montara Pump Station	Electrical & Emergency Power	Replace emergency generator	34	15	Asset past useful life and known vulnerability; critical to emergency operations	2.5	Reliability	$ -	$ -	$ 243,360	$ -	$ -	$ -	$ -	$ 474,041
	2.04	Montara Pump Station	Electrical & Emergency Power	Repair/replace front door and generator room door frames	34	15	Damaged asset and known vulnerability	2.20	Reliability	$ -	$ -	$ -	$ 44,995	$ -	$ -	$ -	$ 84,274
	2.05	Montara Pump Station	Pumps	Replace pumps 1 & 2	34	20	Asset past useful life and critical to normal operations	3.5	Reliability	$ -	$ -	$ -	$ 224,973	$ 233,972	$ -	$ -	$ -
	2.06	Montara Pump Station	Pumps	Replace chopper pump 3	34	20	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 316,027
	2.07	Montara Pump Station	Pumps	Install grit chamber	NA	50	Upgrade to protect pumps and increase efficiency of pump station	3.2	Efficiency	$ -	$ 130,000	$ -	$ -	$ -	$ -	$ -	$ -
	2.08	Montara Pump Station	Pumps	Rehbilitate pump station bypass system	NA	TBD	Missing functionality critcal to emergency operation and routine maintenance		Reliability	$ -	$ -	$ 216,320	$ -	$ -	$ -	$ -	$ -
	2.09	Montara Pump Station	Metering & Controls	Replace PLC	34	10	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ 11,249	$ -	$ -	$ -	$ 21,068
	2.10	Montara Pump Station	Metering & Controls	Replace flowmeter	34	10	Planned replacement when asset reaches end of useful life	2.26	Reliability	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ 259,751	$ -
	2.11	Montara Pump Station	Chemical	Evaluate chemical storage tank and metering pumps, potentially remove storage and replace with tablet system	31	20	Potential cost savings and safety improvements	2.27	Efficiency	$ -	$ -	$ -	$ 22,497	$ -	$ -	$ -	$ -
	2.12	Montara Pump Station	Storage	Routine maintenance of 400,000 gal Walker tank, fencing, and gates	34	50	Routine maintenance to secure facility and prevent breakdown and vandalism		Reliability	$ -	$ -	$ 32,448	$ -	$ -	$ 14,233	$ 17,317	$ 21,068
	2.13	Montara Pump Station	Building and Support	Install proper hatches	NA	NA	Known safety vulnerability		Safety	$ -	$ -	$ -	$ 56,243	$ -	$ -	$ -	$ -

costs adjusted for 4% inflation

Full Project List

	Project Number	Category		Project	Asset Age (years)	Asset Useful Life (years)	Project Reasoning	2017 5-Year Infrastructure Plan Project Number	Benefit	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	2.14	Montara Pump Station	Building and Support	Fix roof and demo old chemical building	31	50	Damaged asset and known vulnerability		Reliability	$ -	$ -	$ -	$ 56,243	$ -	$ -	$ -	$ -
	3.01	Portola Pump Station	Storage	Replace surge tank	35	20	Damaged asset and known vulnerability	1.3	Reliability	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	3.02	Portola Pump Station	Storage	Expand wet weather storage	NA	50	Improve operations and prevent catastophic failure due to storm damages		Reliability	$ 690,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	3.03	Portola Pump Station	Building & Support	Install proper hatches	35	20	Known safety vulnerability	1.8	Safety	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
	3.04	Portola Pump Station	Building & Support	Rehabilitate deteriorated concrete in wet well	34	50	Damaged asset and known vulnerability	2.11	Reliability	$ -	$ -	$ 10,816	$ 112,486	$ -	$ -	$ -	$ -
	3.05	Portola Pump Station	Electrical & Emergency Power	Replace automatic transfer switch and external power connection	35	15	Asset past useful life and known vulnerability; critical to emergency operations	1.5	Reliability	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 158,014
	3.06	Portola Pump Station	Electrical & Emergency Power	Replace emergency generator	34	15	Asset past useful life and known vulnerability; critical to emergency operations	2.4	Reliability	$ -	$ -	$ 243,360	$ -	$ -	$ -	$ -	$ 474,041
	3.07	Portola Pump Station	Pumps	Rehabilitate pump station bypass system	NA	15	Missing functionality critcal to emergency operation and routine maintenance		Reliability	$ -	$ -	$ 216,320	$ -	$ -	$ -	$ -	$ -
	3.08	Portola Pump Station	Pumps	Replace pumps 1 & 2 with chopper pumps	19	20	Asset past useful life and critical to normal operations; improve efficiency	1.2	Reliability	$ 202,500	$ -	$ 219,024	$ -	$ -	$ -	$ -	$ -
	3.09	Portola Pump Station	Pumps	Replace pumps 3 & 4	35	20	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 569,325	$ -	$ -
	3.10	Portola Pump Station	Chemical	Evaluate condition of fresh water tank and appurtenances	35	15	Asset evaluation	2.21	Reliability	$ -	$ -	$ -	$ 5,624	$ -	$ -	$ -	$ 10,534
	3.11	Portola Pump Station	Chemical	Evaluate chemical storage, strategy, and odor control system	15	15	Asset evaluation		Efficiency	$ -	$ -	$ -	$ -	$ 35,096	$ -	$ -	$ -
	3.12	Portola Pump Station	Chemical	Recondition odor control system	15	15	Routine maintenance for proper functionality	2.19	Human health & environment	$ -	$ 52,000	$ -	$ -	$ -	$ 7,117	$ 8,658	$ 105,342
	3.13	Portola Pump Station	Metering & Controls	Replace flowmeter	34	20	Planned replacement when asset reaches end of useful life	2.25	Reliability	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ -	$ -
	3.14	Portola Pump Station	Metering & Controls	Replace PLC and level transducer	19	15	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ 23,397	$ -	$ -	$ 42,137
	3.15	Portola Pump Station	Building & Support	Water proofing and drainage rehabilitation	35	20	Known vulnerability to further damage		Reliability	$ -	$ -	$ -	$ 112,486	$ -	$ -	$ -	$ -
	4.01	Princeton Pump Station	Electrical & Emergency Power	Replace automatic transfer switch	35	15	Asset past useful life and known vulnerability; critical to emergency operations	1.5	Reliability	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 158,014
	4.02	Princeton Pump Station	Electrical & Emergency Power	Replace emergency generator	35	15	Asset past useful life and known vulnerability; critical to emergency operations		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ 389,627	$ -

costs adjusted for 4% inflation

Full Project List

	Project Number	Category		Project	Asset Age (years)	Asset Useful Life (years)	Project Reasoning	2017 5-Year Infrastructure Plan Project Number	Benefit	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	4.03	Princeton Pump Station	Pumps	Feasibility study of alternatives to improve pump station	35	NA	Evaluation to improve operations, efficiency, and reliability		Efficiency	$ -	$ 31,200	$ -	$ -	$ -	$ -	$ -	$ -
	4.04	Princeton Pump Station	Pumps	Replace with Package Pump Station	35	30	Solution depends on outcome of feasibility study	1.4	Efficiency	$ -	$ -	$ 757,120	$ -	$ -	$ -	$ -	$ -
	4.05	Princeton Pump Station	Pumps	Rehabilitate pump station bypass system	NA	NA	Missing functionality critcal to emergency operation and routine maintenance		Reliability	$ -	$ -	$ 216,320	$ -	$ -	$ -	$ -	$ -
	4.06	Princeton Pump Station	Building & Support	Assess and repair rainwater entering MCC room	35	15	Damaged asset and known vulnerability	1.1	Reliability	$ -	$ -	$ 54,080	$ -	$ -	$ -	$ -	$ -
	5.01	Admin	Administration Building	Routine building maintenance	35	varies	Routine or preventative maintenance		Reliability	$ -	$ -	$ 54,080	$ -	$ -	$ 71,166	$ 86,584	$ 105,342
	5.02	Admin	Digester Control Building	Routine building maintenance	35	varies	Routine or preventative maintenance		Reliability	$ -	$ -	$ -	$ 22,497	$ -	$ 28,466	$ 34,634	$ 42,137
	5.03	Admin	Effluent Pump Station Building	Routine building maintenance	35	varies	Routine or preventative maintenance		Reliability	$ -	$ -	$ -	$ 22,497	$ -	$ 28,466	$ 34,634	$ 42,137
	5.04	Admin	Mechanical Building #1	Routine building maintenance	35	varies	Routine or preventative maintenance		Reliability	$ -	$ -	$ -	$ -	$ 23,397	$ 28,466	$ 34,634	$ 42,137
	5.05	Admin	Mechanical Building #2	Routine building maintenance	35	varies	Routine or preventative maintenance		Reliability	$ -	$ -	$ -	$ -	$ 23,397	$ 28,466	$ 34,634	$ 42,137
	5.06	Admin	Maintenance Building	Routine building maintenance	35	varies	Routine or preventative maintenance		Reliability	$ -	$ -	$ -	$ -	$ 23,397	$ 28,466	$ 34,634	$ 42,137
	5.07	Admin	SCADA	Upgrade SCADA software	1	5	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 71,166	$ 86,584	$ 105,342
	5.08	Admin	SCADA	Replace server	13	5	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 28,466	$ 34,634	$ 42,137
	5.09	Admin	SCADA	Replace computer stations	varies	5	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 28,466	$ 34,634	$ 42,137
	5.10	Admin	Vehicles	Rehab/replace vehicle fleet	varies	10	Planned replacement when asset reaches end of useful life		Reliability	$ -	$ 52,000	$ -	$ 56,243	$ -	$ 498,159	$ 259,751	$ 105,342
	6.01	WWTP General	Efficiency	Evaluate broad range of plant optimization options	NA	NA	Evaluation to improve operations, efficiency, and reliability		Efficiency	$ -	$ -	$ 54,080	$ -	$ -	$ -	$ -	$ -
	6.02	WWTP General	Recycle Water	Execute recycled water plan	NA	NA	Implementation depends on outcome of plant optimization study and possible regulatory changes		Human health & environment	$ -	$ -	$ -	$ -	$ -	$ 5,266,254	$ -	$ -
	6.03	WWTP General	Safety	Complete comprehensive safety assessment and implement critical improvements	NA	NA	Evaluation to identify safety improvements		Safety	$ -	$ 156,000	$ -	$ -	$ -	$ -	$ -	$ -
	7.01	WWTP	Electrical & Emergency Power	Replace electrical switchgear	20	15	Damaged asset and known vulnerability	1.7	Reliability	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	7.02	WWTP	Electrical & Emergency Power	Replace emergency generator	19	15	Asset past useful life and known vulnerability; critical to emergency operations	2.6	Reliability	$ -	$ -	$ -	$ -	$ 1,052,873	$ -	$ -	$ 1,896,164
	7.03	WWTP	Electrical & Emergency Power	Replace automatic transfer switch	35	35	Asset past useful life and known vulnerability; critical to emergency operations		Reliability	$ -	$ -	$ -	$ -	$ -	$ 106,748	$ -	$ -

costs adjusted for 4% inflation

Full Project List

	Project Number	Category		Project	Asset Age (years)	Asset Useful Life (years)	Project Reasoning	2017 5-Year Infrastructure Plan Project Number	Benefit	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	7.04	WWTP	Electrical & Emergency Power	Replace line power utility breaker	19	15	Asset past useful life and known vulnerability; critical to normal operations		Reliability	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
	7.05	WWTP	Electrical & Emergency Power	Replace emergency generator breaker	19	15	Asset past useful life and known vulnerability; critical to emergency operations		Reliability	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
	7.06	WWTP	Electrical & Emergency Power	Replace generator diesel fuel tank	19	20	Asset past useful life and known vulnerability; critical to emergency operations		Reliability	$ -	$ -	$ -	$ -	$ -	$ 142,331	$ -	$ -
	8.01	WWTP	HeadWorks	Replace screenings screw conveyor at headworks	18	20	Damaged asset and known vulnerability	2.15	Reliability	$ -	$ -	$ 135,200	$ -	$ -	$ -	$ -	$ -
	8.02	WWTP	HeadWorks	Rehabilitate/replace manual bar screen	19	25	Asset nearing end of useful life; preventative maintenance		Reliability	$ -	$ -	$ 21,632	$ -	$ -	$ -	$ -	$ -
	8.03	WWTP	Headworks	Replace automatic bar screen drives			Planned replacement when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 142,331	$ -	$ -
	9.01	WWTP	Influent Pumping	Replace influent pumps	34	20	Asset past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life	2.7	Reliability	$ -	$ -	$ -	$ -	$ -	$ 355,828	$ -	$ -
	9.02	WWTP	Influent Pumping	Rehabilitate/replace influent wet well	35	50	Planned rehabilitation when asset reaches end of useful life; large project would need full influent bypass system to complete		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,053,425
	9.03	WWTP	Influent Pumping	Replace electrical wires and conduits to all influent pumps	34	20	Damaged asset and known vulnerability		Safety	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
	9.04	WWTP	Influent Pumping	Improve influent pumping operation by adding check valves, HOA, and VFDs where needed	34	20	Known inefficiencies in operation and safety		Efficiency	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
	9.05	WWTP	Influent Pumping	Influent wet well inspection and repair	34	50	Interim repairs as needed to avoid costly damage; influent wet well has not been inspected in 30+ years		Reliability	$ -	$ -	$ -	$ 89,989	$ -	$ -	$ -	$ -
	10.01	WWTP	Primary Treatment	Replace grit chamber gates at splitter box	34	20	Damaged asset and known vulnerability		Reliability	$ -	$ 15,600	$ -	$ -	$ -	$ -	$ -	$ -
	10.02	WWTP	Primary Treatment	Rehabilitate skimmer troughs	35	20	Damaged asset and known vulnerability		Reliability	$ -	$ 52,000	$ 54,080	$ 5,648	$ -	$ -	$ -	$ -
	10.03	WWTP	Primary Treatment	Upgrade/replace grit blowers, as needed	34	15	Asset past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life	3.6	Reliability	$ -	$ -	$ -	$ -	$ 87,739	$ -	$ -	$ 158,014
	10.04	WWTP	Primary Treatment	Replace chain & flights, collector gear reducer, and weirs in primary clarifier	21	20	Asset past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life	2.12	Reliability	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ -	$ -
	10.05	WWTP	Primary Treatment	Replace primary scum pump	35	20	Asset nearing end of useful life; planned replacement		Reliability	$ -	$ -	$ -	$ -	$ 46,794	$ -	$ -	$ -
	10.06	WWTP	Primary Treatment	Replace grit pumps and appurtenances	34	20	Asset past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life	2.10	Reliability	$ -	$ -	$ -	$ -	$ -	$ 128,098	$ -	$ -
	10.07	WWTP	Primary Treatment	Replace primary sludge pumps	34	40	Planned rehabilitation when asset reaches end of useful life	2.9	Reliability	$ -	$ -	$ -	$ -	$ -	$ 71,166	$ -	$ -

costs adjusted for 4% inflation

Full Project List

	Project Number	Category		Project	Asset Age (years)	Asset Useful Life (years)	Project Reasoning	2017 5-Year Infrastructure Plan Project Number	Benefit	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	10.08	WWTP	Primary Treatment	Replace grit washer	17	20	Planned rehabilitation when asset reaches end of useful life	2.18	Reliability	$ -	$ -	$ -	$ -	$ -	$ 56,932	$ -	$ -
	10.09	WWTP	Primary Treatment	Rehabilitate grit chambers	35	50	Planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 210,685
	10.10	WWTP	Primary Treatment	Rehabilitate primary clarifier tanks	21-35	50	Planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,053,425
	11.01	WWTP	Secondary Treatment	Rehabilitate backup aeration basin	NA	50	Known lack of redundancy and vulnerability to bypass	3.7	Reliability	$ -	$ 156,000	$ 162,240	$ -	$ -	$ -	$ -	$ -
	11.02	WWTP	Secondary Treatment	Replace aeration blowers and assess feasibility of connecting grit air to process air supply	34	15	Asset past useful life and replacement will reduce energy costs	3.3	Efficiency	$ -	$ 416,000	$ -	$ -	$ -	$ -	$ -	$ 842,740
	11.03	WWTP	Secondary Treatment	Replace/rehabilitate secondary clarifier drive mechanism	19	20	Planned replacement when asset reaches end of useful life	2.14	Reliability	$ -	$ -	$ -	$ -	$ 175,479	$ -	$ -	$ -
	11.04	WWTP	Secondary Treatment	Replace RAS pumps	20	20	Asset nearing past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ 346,335	$ -
	11.05	WWTP	Secondary Treatment	Replace WAS pumps	20	20	Asset nearing past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ 173,168	$ -
	12.01	WWTP	Disinfection	Perform disinfection alternatives analysis	NA	NA	Evaluation to idenitfy cost savings	2.24	Efficiency	$ -	$ -	$ 54,080	$ -	$ -	$ -	$ -	$ -
	12.02	WWTP	Disinfection	Replace chemical metering pumps	0	20	Planned replacement when asset reaches end of useful life	1.9 (done in 2018)	Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 316,027
	12.03	WWTP	Disinfection	Install shade canopy for chemical storage and pump	NA	50	Known vulnerability; necessary upgrade to protect assets and prolong useful life		Reliability	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
	12.04	WWTP	Disinfection	Fix chlorine injection issues	35	20	Damaged asset and known vulnerability		Reliability	$ -	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -
	13.01	WWTP	Effluent Pumping	Develop emergency plan for pump outage and develop plan for pump replacements	34	20	Pumps are past end of useful life and known vulnerability because spare parts are no longer available; immediate flooding and widespread damage would result from failure		Human health & environment	$ -	$ 20,800	$ -	$ -	$ -	$ -	$ -	$ -
	13.02	WWTP	Effluent Pumping	Replace effluent pumps	34	20	Execute replacement plan	2.8	Reliability	$ -	$ -	$ -	$ 168,730	$ -	$ 426,994	$ -	$ -
	14.01	WWTP	Anaerobic Digestion	Install VFDs on sludge transfer pumps 1 and 2	NA	20	Known inefficiency; VFDs would reduce sludge pumping and reduce energy usage		Efficiency	$ -	$ -	$ 108,160	$ -	$ -	$ -	$ -	$ -
	14.02	WWTP	Anaerobic Digestion	Replace sludge mixing, recirculation, and transfer pumps	20	20	Asset nearing past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life	2.13	Reliability	$ -	$ -	$ -	$ -	$ -	$ 213,497	$ -	$ -
	14.03	WWTP	Anaerobic Digestion	Install stainless Steel Heat Exchanger and Shell	19	20	Known vulnerability; the existing equipment is nearing past its useful life and is outdated	2.2	Efficiency	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ -
	14.04	WWTP	Anaerobic Digestion	New burner system for Boilers	20	25	Planned rehabilitation when asset reaches end of useful life	2.3	Efficiency	$ -	$ -	$ -	$ -	$ -	$ 78,282	$ -	$ -

costs adjusted for 4% inflation

	Project Number	Category		Project	Asset Age (years)	Asset Useful Life (years)	Project Reasoning	2017 5-Year Infrastructure Plan Project Number	Benefit	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	14.05	WWTP	Anaerobic Digestion	Rehabilitate/replace sludge holding tank	20	25	Planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 711,656	$ -	$ -
	14.06	WWTP	Anaerobic Digestion	Rehabilitate/replace digesters	20	25	Planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 1,423,312	$ 1,731,676	$ -
	14.07	WWTP	Anaerobic Digestion	Assess beneficial sludge reuse	NA	NA	Evaluate options for sludge reuse		Efficiency	$ -	$ -	$ -	$ -	$ -	$ 28,466	$ -	$ -
	14.08	WWTP	Anaerobic Digestion	Replace hot water boilers	20	25	Planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 263,356
	14.09	WWTP	Anaerobic Digestion	Replace boiler circulation pumps	20	20	Asset nearing past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,137
	14.10	WWTP	Anaerobic Digestion	Replace heat exchanger circulation pumps	20	20	Asset nearing past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,137
	15.01	WWTP	Sludge Dewatering	Rehabilitate sludge dewatering bldg: crane, rollup door, floor etc.	30-35	various	Known vulnerability; necessary upgrade to protect assets and prolong useful life	2.16	Reliability	$ -	$ 156,000	$ -	$ -	$ -	$ -	$ -	$ -
	15.02	WWTP	Sludge Dewatering	Purchase critical spare parts for BFP/main conveyor and prepare emergency plan	20	20	Known vulnerability; necessary to plan for mechanical failures as asset reaches end of useful life	1.6	Reliability	$ -	$ -	$ 108,160	$ -	$ -	$ -	$ -	$ -
	15.03	WWTP	Sludge Dewatering	Replace Forced air ventilation with appropriate exhaust system in Press Room	NA	20	Known health and safety concern for plant workers	1.10	Safety	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	15.04	WWTP	Sludge Dewatering	Install WAS gravity thickener and address storage shortage as needed	NA	20	Potential cost savings and process improvements; potential for prolonginguseful life of other sludge dewatering assets	3.1	Efficiency	$ -	$ 312,000	$ -	$ -	$ -	$ -	$ -	$ -
	15.05	WWTP	Sludge Dewatering	Refurbish belt filter press	20	20	Asset nearing past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 256,196	$ -	$ -
	15.06	WWTP	Sludge Dewatering	Replace belt filter press feed pumps, hydraulic pump, and spray pumps	20	20	Asset nearing past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ -	$ 173,168	$ -
	16.01	WWTP	Digester Gas System	Replace digester gas flare and accessories	20	20	Asset past useful life and known vulnerability of failure		Reliability	$ -	$ 520,000	$ -	$ -	$ -	$ -	$ -	$ -
	16.02	WWTP	Digester Gas System	Replace digester gas valves and blowers	20	20	Asset past useful life and known vulnerability of failure		Reliability	$ -	$ -	$ 21,632	$ -	$ -	$ -	$ 34,634	$ -
	16.03	WWTP	Digester Gas System	Assess beneficial digester gas reuse and options for improvement	NA	NA	Evaluation to identify cost savings	3.4	Efficiency	$ -	$ -	$ 32,448	$ -	$ -	$ -	$ -	$ -
	17.01	WWTP	Water Supply and Piping Systems	Replace air gap tank	35	40	Planned rehabilitation when asset reaches end of useful life		Reliability	$ -	$ -	$ -	$ -	$ -	$ 14,233	$ -	$ -
	17.02	WWTP	Water Supply and Piping Systems	Replace No. 1 and No. 2 water pumps and tanks	35	20	Asset past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life	2.23	Reliability	$ -	$ -	$ -	$ -	$ -	$ 227,730	$ -	$ -

costs adjusted for 4% inflation

Full Project List

	Project Number	Category		Project	Asset Age (years)	Asset Useful Life (years)	Project Reasoning	2017 5-Year Infrastructure Plan Project Number	Benefit	2018	2019	2020	2021	2022	2023 to 2027	2028 to 2032	2033 to 2037
	17.03	WWTP	Water Supply and Piping Systems	Replace No. 3 water pumps	35	20	Asset past useful life but in good working condition; planned rehabilitation when asset reaches end of useful life	2.22	Reliability	$ -	$ -	$ -	$ 179,978	$ -	$ -	$ 277,068	$ -
	17.04	WWTP	Water Supply and Piping Systems	Replace galvanized piping throughout plant	35	40	Known vulnerability to corrosion and failure		Reliability	$ -	$ -	$ 54,080	$ -	$ -	$ 71,166	$ 86,584	$ 105,342
	17.05	WWTP	Water Supply and Piping Systems	Address water loss issue from municipal supply line	NA	NA	Unknown location and cause of leaks or other unaccounted for water on water bill		Efficiency	$ -	$ -	$ 21,632	$ -	$ -	$ -	$ -	$ -
	17.06	WWTP	Water Supply and Piping Systems	Reroute high pressure fire and domestic line to safer location away from private properties	NA	NA	Potential mitigation of safety issue; high pressure water line owned by SAM runs below residential properties		Safety	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,463,353	$ -

costs adjusted for 4% inflation

Attachment 5 – 2017 5-Year Infrastructure Plan

Sewer Authority Mid-Coastside

PROPOSED INFRASTRUCTURE PLAN: FY17/18 – FY21/22

March 2017

Board of Directors

Kathryn Slater-Carter – Chair

Leonard Woren – Vice Chair

Deborah Ruddock

Scott Boyd

Deborah Penrose

Ric Lohman

General Manager

Beverli Marshall

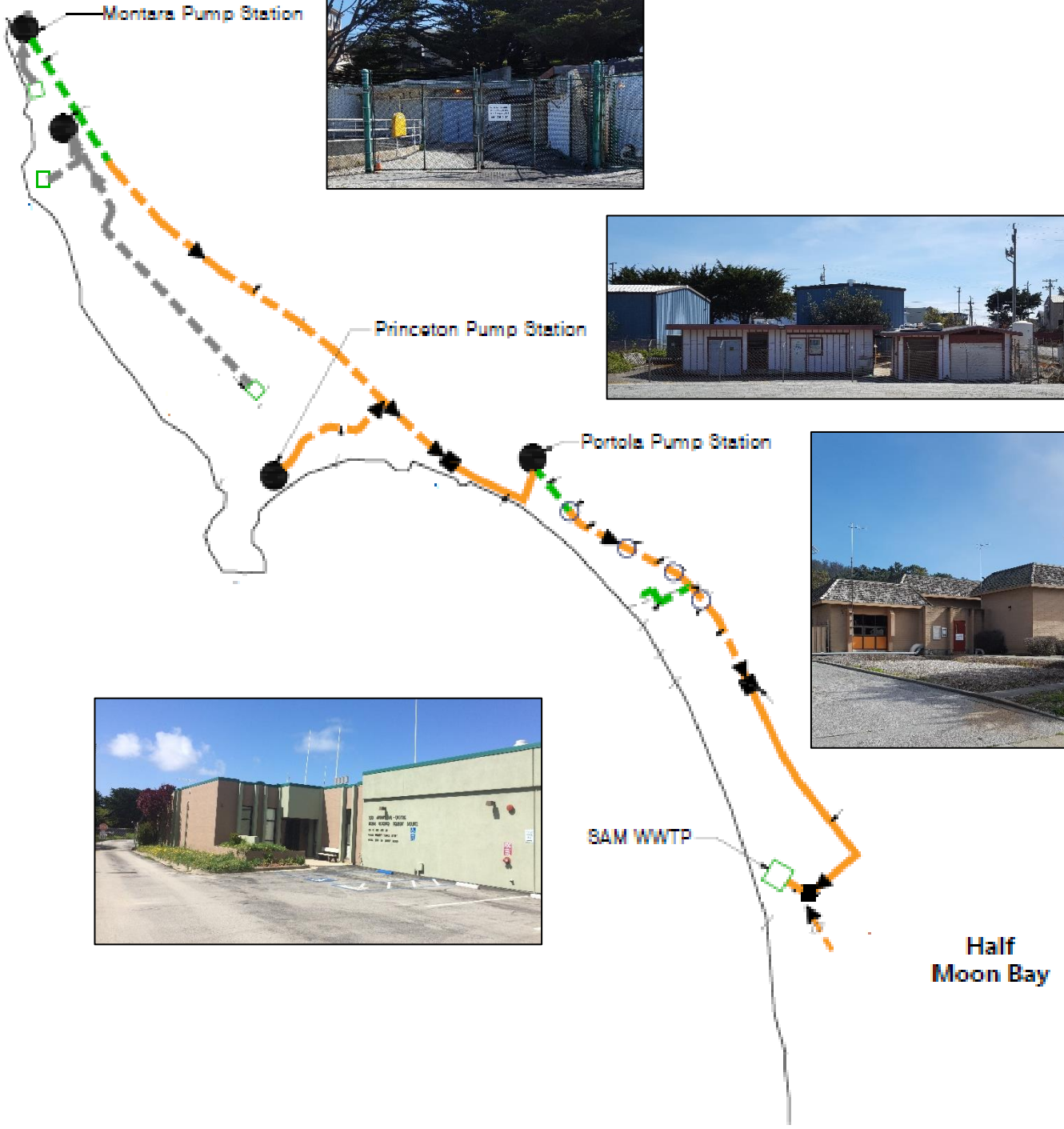

Montara Pump Station
Princeton Pump Station
Portola Pump Station
SAM WWTP
Half
Moon Bay

TABLE OF CONTENTS

I. INTRODUCTION

SAM's facilities require improvements to address system renewal and replacement needs, continue to maintain and improve system reliability, and ensure continuous compliance with all applicable regulations. These potential improvements make up SAM's Infrastructure Plan and include the rehabilitation of the existing infrastructure, implementation of repair and replacement projects, and preventive maintenance projects.

Staff proposes the prioritization criteria that serve as the foundation for SAM's Infrastructure Plan decision-making process to ensure a relevant implementation schedule and adequate funding for the improvements. The criteria provide a method to rate the relative importance of a particular project based upon factors such as protection of public health, employee safety, legal and regulatory requirements, and funding constraints. These criteria establish which projects should be implemented in any given year and over the Infrastructure planning horizon.

The proposed Infrastructure Plan is designed to meet the following goals:

- Respond to regulatory and safety concerns
- Maintain and replace existing aging assets
- Protect public health and environment
- Embrace a policy of sustainability for the responsible use of existing resources

II. PRIORITIZATION CRITERIA

The prioritization criteria proposed by staff are presented in Table 1, categorized into three priority levels, listed from most to least critical for implementation: (1) Regulatory and Safety, (2) Replacement and Rehabilitation, and (3) Sustainability/Energy/Optimization.

Table 1. Prioritization Criteria

Priority Level	Criticality	Description
1 REGULATORY AND SAFETY	*Must do* SAM has little or no control to defer	This category focuses on projects that aim to ensure that SAM remains in full regulatory and safety compliance with all applicable regulations. These projects typically cover a wide variety of subjects to improve facilities for safety reasons, to reduce emissions of pollutants to the environment, and to meet future regulatory requirements.

2 REPLACEMENT AND REHABILITATION	*Must be done* SAM has moderate level of control over the timing of implementation	This category focuses on projects related to maintaining existing aging infrastructure and the replacement requirements of SAM. Replacement projects focus on equipment that has exceeded its useful life, have previous history of failure, or are obsolete making it difficult or impossible to obtain replacement parts. The goals are to provide for ongoing or future renovation activities. The projects in this category typically include mechanical equipment replacement, piping renovations and replacement, electrical (including switch gear/distribution) and instrumentation replacement, upgrades, and modernization.
3 SUSTAINABILITY/ENERGY/ OPTIMIZATION	*Should be done* SAM has significant level of control over the timing of implementation	This category focuses on projects that optimize existing processes, or energy efficiency, and sustainability of the treatment plant, the Intertie Pipeline System (IPS), and other facilities. The goals are to continue upgrading and improving the treatment plant's existing infrastructure and systems to optimize and reduce energy use, lower maintenance costs, and prevent major failures.

III. METHODOLOGY

The Wastewater Treatment Plant (WWTP), pump stations, and IPS vulnerability assessment was conducted using an approach that aligns with the methodologies recommended by the Environmental Protection Agency (EPA) for the vulnerability and risk assessment of the wastewater treatment infrastructure. Critical assets and resources were identified and assessed for current conditions and expected performance against their estimated remaining useful life. Hazards and resulting vulnerabilities to these assets were then ranked in terms of how their respective occurrence or failure could impact the functionality of the treatment plant. Each hazard's consequence was ranked against the expected likelihood of occurrence, or risk, for SAM.

Asset Inventory:

Asset characterization is the process by which SAM's assets are evaluated and chosen based on each asset's criticality to the overall service of the WWTP and the pump stations. The purpose of asset characterization is to determine the assets that, if compromised by failure, could result in prolonged or widespread interruption of the service, degradation, injuries, fatalities, detrimental economic impact to SAM or the community, or any combination thereof.

Risk Level:

The hazard risk level (Risk) is defined as the probability of equipment failure (Probability) multiplied by the consequence of equipment failure (Consequence).

Risk = Probability * Consequence

The probability of equipment failure is rated based on its age and staff experience and is rated as follows:

Table 2. Probability of Equipment Failure

Rate of Occurrence of Equipment Failure	Once every 10 years	Once every 5 to 10 years	Once every 3 to 5 years	Once every 1 to 3 years	< Once a year
Probability of Equipment Failure Rating	0.5	2.5	5	7.5	10

Three criteria were considered when evaluating the consequence of the external hazard:

- The impact on the WWTP effluent quality
- The impact on the WWTP treatment capacity including existing levels of redundancy; and
- The ability to return the piece of equipment to service. This covers staff and resource preparedness.

Each of the three criteria is given a relative weight based on percentage (i.e. 33%, 33%, and 34%). The anticipated consequence of failure are rated: 1 – negligible, 5 – low, and 10 – severe. The consequence of failure for each project is determined individually and rated 1, 5, or 10. A project's overall rating is calculated as the weighted average of these three ratings. The risk score is then determined by multiplying the consequence of failure overall rating and the probability of failure.

Table 3. Consequence of Equipment Failure				
Criterion	Relative Weight	Anticipated Consequences		
Impact on Effluent quality	33%	None	Mid-term effluent quality non-compliance	Immediate effluent quality non- compliance
Impact on Treatment Capacity	33%	None	No more redundancy or peak capacity <15MGD	Failed process or average capacity <4MGD
Ability to Return Equipment to Service	34%	Immediate repair/replacement possible	Repair possible before treatment is impacted	No contingency plan; preparedness uncertain
Criterion Rating		Rating = 1 (Negligible)	Rating = 5 (Low)	Rating = 10 (Severe)
Consequence rating		Weighted average of the three criterion ratings		

Once the risk levels for all projects are determined they are sorted from high to low. Projects with high scores present high risk and therefore should be addressed first. The various risk levels for the three priority level projects are listed in Appendix A.

IV. PROJECT COST DISTRIBUTION AND FISCAL YEAR SCHEDULE

Table 4 contains all of the currently identified projects in numerical order based on their risk scores from high to low within the three priority levels. Budget level cost estimates for addressing the projects are shown in 2017 dollars and the recommended time frame for implementing the projects over the next 5 years is also presented.

Table 4. Total Project Cost Distribution and Fiscal Year Schedule								
				Implementation Year				
	No.	Project Description	Cost	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
Priority level 1 Projects	1.1	Assess and repair rainwater entering Princeton PS MCC room	50,000	50,000				
	1.2	Portola PS: Replace pumps 1 & 2 w/ chopper pumps	400,000	200,000			200,000	
	1.3	Portola PS: Replace surge tank	75,000	75,000				
	1.4	Replace Princeton PS with Package Pump Station	700,000	700,000				
	1.5	Replace ATS at Princeton PS, Montara PS and Portola PS	225,000	75,000	75,000	75,000		
	1.6	Purchase critical spare parts for BFP/main conveyor and prepare emergency plan	100,000		100,000			
	1.7	Replace electrical switchgear at WWTP	500,000		10,000	250,000	240,000	
	1.8	Install proper hatches at Portola PS	50,000		50,000			
	1.9	Chemical metering pumps at WWTP	150,000	75,000	75,000			
	1.10	Replace Forced air ventilation with appropriate exhaust system in Press Room	100,000		100,000			
	1.11	New longer conveyor for bin area	150,000		150,000			
Priority Level 2 Projects	2.1	Granada FM: Replace remaining deteriorated sections	3,300,000	1,500,000	1,800,000			
	2.2	Stainless Steel Heat Exchanger and Shell	100,000	100,000				
	2.3	New burner system for Boilers	55,000	55,000				
	2.4	Portola PS: Replace emergency generator	225,000		225,000			
	2.5	Montara PS: Replace emergency generator	225,000			225,000		
	2.6	Replace WWTP generator	900,000				900,000	
	2.7	Replace WWTP influent pumps	250,000		125,000	125,000		

	2.8	Replace WWTP effluent pumps	300,000		150,000	150,000		
	2.9	Primary sludge pumps 1,2 and 3	50,000		50,000			
	2.10	Grit pumps 1,2 and appurtenances	90,000				90,000	
	2.11	Portola PS: Rehabilitate deteriorated concrete in wetwell	50,000			10,000	40,000	
	2.12	Replace chain & flights and collector gear reducer in primary clarifier	150,000					150,000
	2.13	Replace sludge mixing(1 pump), recirculation (1 pump), and transfer pumps(2 pumps)	150,000					150,000
	2.14	Replace secondary clarifier drive mechanism	100,000					100,000
	2.15	Replace screening conveyor at headworks (motor , support, gear box and brushes)	125,000					125,000
	2.16	Rehabilitate sludge dewatering bldg.: crane, rollup door, etc.	60,000		60,000			
	2.17	Repair damaged exterior electrical conduits at Montara PS	75,000				75,000	
	2.18	Replace grit washer at WWTP	40,000					40,000
	2.19	Portola PS: Recondition odor control system	50,000					50,000
	2.20	Repair/replace front door and generator room door frames at Montara PS	40,000				40,000	
	2.21	Portola PS: Evaluate condition of fresh water tank and appurtenances	5,000		5,000			
	2.22	#3 water system- pumps and tank	80,000			80,000		
	2.23	#2 water system- pumps and tank	80,000				80,000	
	2.24	Perform disinfection alternatives analysis at WWTP	50,000					50,000

	2.25	Flowmeter at Portola PS	150,000					150,000
	2.26	Flowmeter at Montara PS	150,000					150,000
	2.27	Evaluate chemical storage tank and metering pumps at Montara PS	5,000		5,000			
Priority Level 3 Projects	3.1	Install WAS gravity thickener at WWTP	300,000	300,000				
	3.2	Install grit chamber at Montara PS	125,000				125,000	
	3.3	Replace aeration blowers at WWTP	400,000		400,000			
	3.4	Study beneficial sludge and digester gas reuse	30,000					30,000
	3.5	Montara PS: Replace pumps 1 & 2	400,000				200,000	200,000
	3.6	Upgrade/replace grit blowers at WWTP	75,000				75,000	
	3.7	Install diffusers, piping, valving and other appurtenances at Aeration Basin # 4	300,000		300,000			
Total			$10,985,000	$3,130,000	$3,380,000	$1,215,000	$2,065,000	$1,195,000

V. PRIORITY LEVEL 1 – PROJECT SHEETS

Priority Level 1 - Regulatory and Safety Projects. These are the highest priority, "must do" capital projects. SAM has little to no control to defer these projects. This category focuses on projects that aim to ensure that SAM remains in full regulatory and safety compliance with all applicable regulations. These projects typically cover a wide variety of subjects to improve facilities for safety reasons, to reduce emission of pollutants to the environment, and to meet future regulatory requirements.

This Infrastructure Plan focuses on the first five years of this timeline. The projects and actions described below would allow SAM to address system deficiencies and continue to operate an efficient and reliable system.

Table 5 contains Regulatory and Safety Projects. A detailed discussion of these projects follows.

Table 5. Priority Level 1 – Regulatory and Safety Projects

No.	Project Description
1.1	Assess and repair rainwater entering Princeton PS MCC room
1.2	Portola PS: Replace pumps 1 & 2 w/ chopper pumps
1.3	Portola PS: Replace surge tank
1.4	Replace Princeton PS with Package Pump Station
1.5	Replace ATS at Princeton PS, Montara PS and Portola PS
1.6	Purchase critical spare parts for BFP/main conveyor and prepare emergency plan
1.7	Replace electrical switchgear at WWTP
1.8	Install proper hatches at Portola PS
1.9	Chemical metering pumps at WWTP
1.10	Ventilator on Mechanical Building 1 in Press Room
1.11	New longer conveyor for bin area

Project: 1.1 Assess and repair rainwater entering Princeton PS MCC room

Priority: Regulatory and Safety

This project provides for assessing the cause of rainwater entering the east wall of the Princeton Pump Station motor control center (MCC) room and implementing improvements to make the building weathertight. Rain water entering the building from behind the MCC presents a dangerous electrocution hazard for SAM staff.

In early 2017 SAM made improvements to the area in front of the MCC room door to slope the grade away from the door. This is helping the situation, but a permanent solution that includes re-grading around the entire building, new drain inlets, and possibly a sump pump to assure rainwater does not entire the building, is necessary to improve SAM staff safety.

Project: 1.1 Assess and repair rainwater entering Princeton PS MCC room

CIP Total Cost: $50,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it presents a dangerous electrocution hazard for SAM staff.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
50,000	50,000				

Project: 1.2 Portola Pump Station – Replace pumps 1 and 2 with chopper pumps

Priority: Regulatory and Safety

This project provides for the replacement of pumps 1 and 2 at the Portola Pump Station. The existing pumps have exceeded their useful life and are requiring more frequent maintenance. The performance of the pumps is greatly reduced due to clogging from rags and other debris. Chopper pumps are specifically designed to macerate fibrous materials such as string and rags that would otherwise cause the pump to seize and stop pumping.

Project: 1.2 Portola Pump Station – Replace pumps 1 and 2 with chopper pumps

CIP Total Cost: $400,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it presents an ongoing maintenance task that is dangerous for SAM staff to perform. The pumps have also exceeded their useful lives and require considerable effort to maintain their reliability which is essential for the IPS system.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
400,000	200,000			200,000	

Project: 1.3 Portola Pump Station – Replace surge tank

Priority: Regulatory and Safety

This project provides for the replacement of exiting surge tank at the Portola Pump Station. The surge tank, located behind the pump station, was shut off years ago and is now badly deteriorated, un-level, and exhibiting corrosion. The interior of the tank is suspected to be heavily corroded due to exposure to sewage and sewer gas. The condition of the internal bladder is unknown, but there is a high degree of confidence that its functionality is also compromised.

A properly operating surge tank is essential for the correct hydraulic operation of the Portola Pump Station and the Granada Force Main. Known deterioration of the force main was caused in part by not having the surge tank on-line for many years.

Project: 1.3 Portola Pump Station – Replace surge tank

CIP Total Cost: $75,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it essential for the proper hydraulic operation of the Portola Pump Station and the Granada Force Main.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
75,000	75,000				

Project: 1.4 Replace Princeton Pump Station with a new package pump station

Priority: Regulatory and Safety

This project provides for the replacement of the Princeton Pump Station with a buried package pump station. The existing pump station and sewage pumps have exceeded their expected useful lives and require replacement. The reliability of the pumps is diminishing as they continue to age and replacement parts are more difficult to obtain. The existing configuration of the pump station requires that confined space entry procedures be followed to access the dry-pit pumps, isolation valves, and check valves.

The proposed package pump station would include a new fiberglass wetwell with submersible duplex grinder pumps mounted on rails for ease of routine removal, maintenance, and inspection. The existing wetwell and dry pit pump room would be converted to a holding tank for wet weather storage similar to the Walker tank and Montara Pump Station and the wet weather storage facility on Burnham Strip that serves the Portola Pump Station. The existing MCC and generator system at the Princeton Pump Station will be used to serve the new pump station which would be located in the open parking area outside of the MCC room.

Project: 1.4 Replace Princeton Pump Station with a new package pump station

CIP Total Cost: $700,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it poses a safety risk for SAM staff when maintenance is needed on the pumps since the dry-pit is a permit required confined space. The existing equipment has also exceeded it useful life, is heavily worn, and replacement parts are becoming difficult to obtain.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
700,000	700,000				

Project: 1.5 Princeton PS, Montara PS and Portola PS – Replace ATS

Priority: Regulatory and Safety

This project provides for the replacement of the automatic transfer switch (ATS) at the Princeton Pump Station. The existing ATS is old, has exceeded it useful life, and replacement parts are becoming difficult to obtain. The ATS is an essential asset that must be reliable. In the event of a power loss to the station, the ATS transfers power from the utility grid to the generator so that operation of the pumps and other ancillary equipment may continue.

Project: 1.5 Princeton PS, Montara PS and Portola PS – Replace automatic transfer switch

CIP Total Cost: $225,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because without a properly functioning ATS the back-up generator cannot power the station in the event of utility power outage. This power outage may result in a sewer system overflow (SSO) if utility power is not restored quickly.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
225,000	75,000	75,000	75,000		

Project: 1.6 WWTP – Purchase critical spare parts for the belt filter press (BFP) and main sludge conveyor and prepare an emergency plan

Priority: Regulatory and Safety

This project provides for purchasing critical spare parts for the BFP and main sludge conveyor. The reliability of this equipment is essential for proper operation of the plant since sludge cannot be processed and removed from the system for off-site disposal if they are not functioning. Spare parts include belts, bearings, idlers, rollers, and other incidental parts which, obtained otherwise, may incur long lead times.

This project also includes developing a contingency plan in the event of a catastrophic failure of the BFP or main sludge conveyor. This includes having mechanics familiar with the equipment on stand-by to make emergency repairs. The plan will also include contact names and phone numbers for local contractors that can stage backup sludge dewatering equipment (BFP, centrifuge, etc.) quickly on site to dewater sludge temporarily until the SAM's BFP and/or main sludge conveyor is repaired.

Project: 1.6 WWTP – Purchase critical spare parts for the belt filter press (BFP) and main sludge conveyor and prepare an emergency plan

CIP Total Cost: $100,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it reduces the risk of the WWTP becoming disabled if digested sludge is not continuously removed from the system for offsite disposal.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
100,000		100,000			

Project: 1.7 WWTP – Replace electrical switch gear

Priority: Regulatory and Safety

This project provides for the replacement of electrical switch gear in Mechanical Building 1. Much of this equipment was originally installed as part of the WWTP expansion and during subsequent upgrades and modifications. Spare and replacement parts are becoming difficult to obtain as the equipment continues to age. This puts SAM at risk that replacement of switch gear, or switch gear components that run critical equipment, may not be manufactured any longer or will require excessive lead time to obtain as custom items.

Project: 1.7 WWTP – Replace electrical switch gear

CIP Total Cost: $500,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it reduces the risk associated with switch gear failure and associated downtime of critical WWTP equipment while replacement components are located and purchased (if they are still being manufactured).

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
500,000		10,000	250,000	240,000	

Project: 1.8 Portola Pump Station – Install proper hatches at the wetwell

Priority: Regulatory and Safety

This project provides for installation of proper hatches at the Portola Pump Station wetwell. The existing hatches are in disrepair and need to be replaced to prevent SAM staff from injury by accidentally falling through one of the existing unsecure hatches.

Project: 1.8 Portola Pump Station – Install proper hatches at the wetwell

CIP Total Cost: $50,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it is dangerous for SAM staff to work in this area where the existing hatches are compromised. Staff may be injured if they accidentally fall through the existing hatch.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
50,000		50,000			

Project: 1.9 WWTP – Replace chemical metering pumps and provide sun shield

Priority: Regulatory and Safety

This project provides for replacement of the existing sodium hypochlorite and sodium bisulfite metering pumps. The existing pumps and piping have exceeded their useful life and are in poor condition due to prolonged exposure to the natural elements particularly with respect to metal corrosion. The sun has deteriorated the plastic pipes and other ancillary plastic components of the chemical metering pumps that are not ultraviolet (UV) protected.

This project calls for the systematic replacement of the pumps, piping, heat tracing, and other badly deteriorated components in the chemical pump containment area. Existing power distribution and controls will be re-used with the new replacement equipment. To protect the new equipment from the sun and rain, a pre-engineered fabric sun shield will be erected above the containment area walls. The sun shield will also protect SAM staff while they maintain the pumps and equipment in this area.

Project: 1.9 WWTP – Replace chemical metering pumps and provide sun shield

CIP Total Cost: $150,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because the existing pumps are deteriorated and require replacement with modern more efficient units. These pumps distribute chlorination (sodium hypochlorite) and de-chlorination (sodium bisulfite) chemicals that are essential for meeting SAM's NPDES permit requirements. Sun-weathered, deteriorated, and brittle plastic valves and ancillary components will also be replaced. The new assets will be protected from future deterioration by a pre-engineered sun shield.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
150,000	75,000	75,000			

Project: 1.10 WWTP – Replace forced air ventilation with appropriate exhaust system in the BFP room

Priority: Regulatory and Safety

This project provides for the replacement of the air handling system in the BFP room of Mechanical Building 1. This high capacity ventilation equipment removes moist corrosive air from the room and replaces it with fresh air so that SAM staff has a safe environment to work inside the building and it protects the equipment from accelerated deterioration due to corrosion.

Project: 1.10 WWTP – Replace forced air ventilation with appropriate exhaust system in the BFP room

CIP Total Cost: $100,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it provides for a safe environment for SAM staff to work in the BFP room and prolongs the useful life of the equipment by inhibiting the formation of a corrosive atmosphere.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
100,000		100,000			

Project: 1.11 WWTP – Install a new long conveyor in the BFP bin area

Priority: Regulatory and Safety

This project provides for the replacement of the bin conveyor belt that serves the BFP. Distribution of sludge evenly across the roll-off container (bin) is difficult to achieve and requires that the bins be periodically moved. This poses a hazard for SAM staff that could be eliminated with a longer conveyor belt more suitable for the bins being used.

Project: 1.11 WWTP – Install a new long conveyor in the BFP bin area

CIP Total Cost: $150,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 1 because it would allow for more efficient and safe loading of the sludge pickup bins.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
150,000		150,000			

VI. PRIORITY LEVEL 2 – PROJECT SHEETS

Priority Level 2 - Replacement and Rehabilitation. These projects provide measurable progress in achieving SAM's goals, but over which SAM has a moderate level of control over the timing of implementation. This category focuses on projects related to maintaining existing aging infrastructure and the replacement requirements of SAM. Replacement projects focus on equipment that has exceeded its useful life, have previous history of failure, or are obsolete making it difficult or impossible to obtain replacement parts. The goals are to provide for ongoing or future renovation activities. The projects in this category typically include mechanical equipment replacement, piping renovations and replacement, electrical (switch gear/distribution) and instrumentation replacement and upgrades.

Table 6 contains Replacement and Rehabilitation Projects. Descriptions of these projects follow.

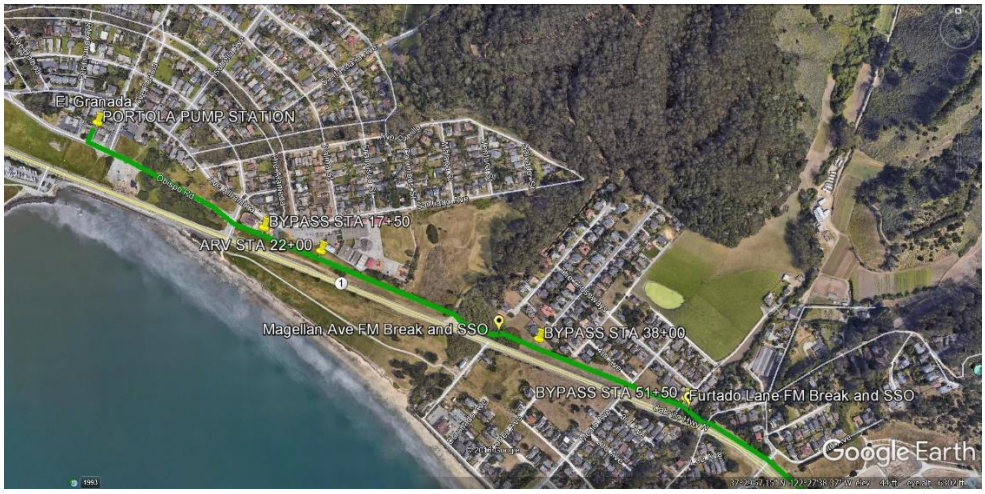
Table 6. Priority Level 2 – Replacement and Rehabilitation	
No.	Project Description
2.1	Granada FM: Replace remaining deteriorated sections
2.2	Stainless steel heat exchanger and shell in digester control building
2.3	New burner system for digester boilers
2.4	Portola PS: Replace emergency generator
2.5	Montara PS- Replace emergency generator
2.6	Replace WWTP generator
2.7	Replace WWTP influent pumps
2.8	Replace effluent pumps at WWTP
2.9	Primary sludge pumps 1,2, and 3
2.10	Replace grit pumps 1,2, and appurtenances
2.11	Portola PS: Rehabilitate deteriorated concrete in wetwell
2.12	Replace chain & flights and collector gear reducer in primary clarifier
2.13	Replace sludge mixing(1 pump), recirculation (1 pump), and transfer pumps(2 pumps)
2.14	Replace secondary clarifier drive mechanism
2.15	Replace screening conveyor at headworks(motor , support, gear box and brushes)
2.16	Rehabilitate sludge dewatering 23ldg..: crane, rollup door, etc.
2.17	Repair damaged exterior electrical conduits at Montara Pump Station
2.18	Replace grit washer at WWTP
2.19	Portola PS: Recondition odor control system
2.20	Repair/replace front door and generator room door frames at Montara Pump Station
2.21	Portola PS: Evaluate condition of fresh water tank and appurtenances

2.22	#3 water system- pump and tank
2.23	#2 water system- pump and tank
2.24	Perform disinfection alternatives analysis at WWTP
2.25	Flowmeter at Portola Pump Station
2.26	Flowmeter at Montara Pump Station
2.27	Evaluate chemical storage tank and metering pumps at Montara PS

Project: 2.1 Granada Force Main: Replace remaining deteriorated sections

Priority: Replacement and Rehabilitation

This project focuses on the replacement of approximately 7,100 linear feet of 14-inch diameter deteriorated ductile iron pipe with comparable diameter high density polyethylene (HDPE). Portions of the forcemain have been repaired in 2013, but the remaining sections require replacement or leaks will continue to occur as the internal inspection has confirmed the pipe is badly damaged and continuing to exceed its useful life.



Project: 2.1 Granada Force Main: Replace remaining deteriorated sections

CIP Total Cost: $3,300,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it will replace an asset that has exceeded its useful life and has a history of multiple failures. Protecting the environment and safeguarding the coastal beaches and marine life are paramount priorities for SAM. Fines levied by the regulatory agencies for sewer system overflows would be financially detrimental to SAM.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
$3,300,000	$1,500,000	1,800,000			

Project: 2.2 WWTP: Stainless steel heat exchanger

Priority: Replacement and Rehabilitation

This project focuses on the replacement of the existing heat exchangers in the digester control building. The shell and the tube bundle are degraded by corrosive liquid and require frequent replacement. These units have exceeded their useful life and would be replaced with more efficient equipment made of Stainless Steel.

Project: 2.2 WWTP: Stainless steel heat exchanger

CIP Total Cost: $100,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it will replace an asset that has exceeded its useful life and is also a critical component responsible for the proper biological sludge digestion process at the WWTP.

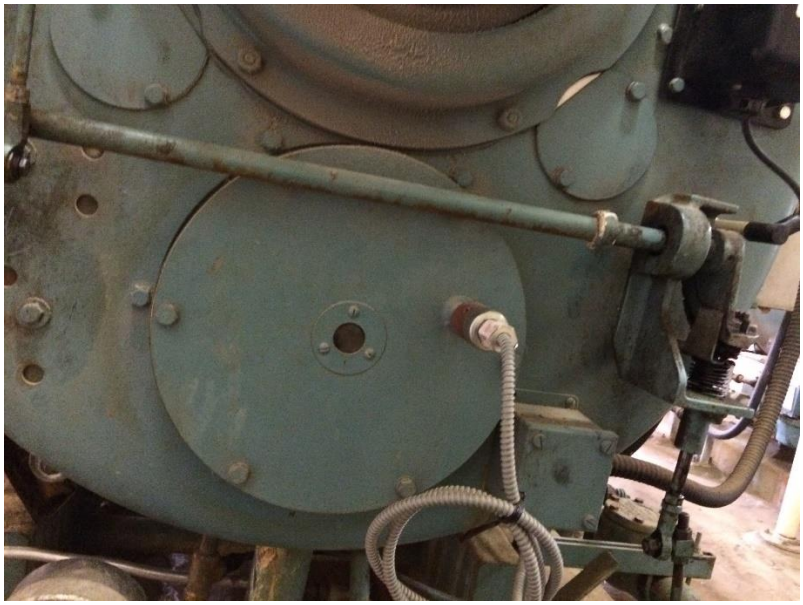
Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
100,000	100,000				

Project: 2.3 WWTP – New burner system for boilers

Priority: Replacement and Rehabilitation

This project involves replacing the burner system on the hot water boilers in the sludge control building. The existing burner is old and has exceeded its useful life and should be replaced with a more efficient and reliable modern system.



Project: 2.3 WWTP – New burner system for boilers

CIP Total Cost: $55,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it involves replacing an important piece of equipment that maintains proper digester temperatures and provides a means of combusting digester generated methane gas.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
55,000	55,000				

Project: 2.4 Portola Pump Station – Replace emergency generator

Priority: Replacement and Rehabilitation

This project involves replacing the emergency generator at the Portola Pump Station. The existing generator is old, has exceeded it useful life, and replacement parts are becoming difficult to obtain. The backup power generator is an essential asset that must be reliable. In the event of a power loss to the Portola Pump Station, the generator provides temporary power so that operation of the pumps and other important ancillary equipment may continue.

Project: 2.4 Portola Pump Station – Replace emergency generator

CIP Total Cost: $225,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it replaces an important asset that has exceeded its useful life. This generator needs to be maintained in peak stand-by condition in the event of a power failure at the pump station. Although the wet weather storage facility enables the pump station to be off-line for short periods of time, a prolonged power outage, without a reliable and sufficient back-up power supply, will result in an SSO.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
225,000		225,000			

Project: 2.5 Montara Pump Station – Replace emergency generator

Priority: Replacement and Rehabilitation

This project involves replacing the emergency generator at the Montara Pump Station. The existing generator is old, has exceeded it useful life, and replacement parts are becoming difficult to obtain. The backup power generator is an essential asset that must be reliable. In the event of a power loss to the Montara Pump Station, the generator provides temporary power so that operation of the pumps and other important ancillary equipment may continue.

Project: 2.5 Montara Pump Station – Replace emergency generator

CIP Total Cost: $225,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it replaces an important asset that has exceeded its useful life. This generator needs to be maintained in peak stand-by condition in the event of a power failure at the pump station. Although the Walker tank enables the pump station to be off-line for short periods of time, a prolonged power outage, without a reliable and sufficient back-up power supply, will result in an SSO.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
225,000			225,000		

Project: 2.6 WWTP – Replace emergency generator

Priority: Replacement and Rehabilitation

This project focuses on replacing the emergency generator at the WWTP. The existing generator is old, has exceeded it useful life, and replacement parts are becoming difficult to obtain. The backup power generator is an essential asset that must be reliable. In the event of a power loss to the WWTP, the generator provides temporary power so that operation of the WWTP may continue.

Project: 2.6 WWTP – Replace emergency generator

CIP Total Cost: $900,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it replaces an important asset that has exceeded its useful life. This generator needs to be maintained in peak stand-by condition in the event of a power failure at the WWTP. A prolonged power outage, without a reliable and sufficient back-up power supply, will result in significant disruption to the plants, clarification, biological treatment, and disinfection processes that may result in a violation of SAM's NPDES permit requirements.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
900,000				900,000	

Project: 2.7 WWTP – Replace influent pumps

Priority: Replacement and Rehabilitation

This project involves replacing influent pumps 1 through 5 (and associated motors) at the WWTP. These pumps are old and approaching the end of their useful lives. Useful life for pumping equipment such as these is 40 years. Pumps 6 through 8 are younger (installed in 1999) do not require replacement at this time.

Project: 2.7 WWTP – Replace influent pumps

CIP Total Cost: $250,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because these pumps are responsible for conveying all flow into the WWTP and therefore they must be maintained in peak reliable condition at all times.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
250,000		125,000	125,000		

Project: 2.8 WWTP – Replace effluent pumps

Priority: Replacement and Rehabilitation

This project involves replacing effluent pumps 1 and 2 (and associated motors) at the WWTP. These pumps are old and approaching the end of their useful lives. The motors have exceeded their useful lives. Useful life for pumping equipment and motors such as these is 40 years and 25 years respectively. Pump 3 and its motor are younger (installed in 1999) and they do not require replacement at this time.

Project: 2.8 WWTP – Replace effluent pumps

CIP Total Cost: $300,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because these pumps are responsible for conveying all flow out of the WWTP during storm events and high tide when ocean outfall can no longer flow by gravity. Since the WWTP could potentially flood in an event such as this, the pumps must be maintained in peak reliable condition at all times.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
300,000		150,000	150,000		

Project: 2.9 WWTP – Replace primary sludge pumps 1, 2, and 3

Priority: Replacement and Rehabilitation

This project involves replacing sludge pumps 1, 2, and 3 (and associated motors) at the WWTP. These pumps are old and approaching the end of their useful lives. The motors have exceeded their useful lives. Useful life for pumping equipment and motors such as these is 40 years and 25 years respectively. Primary sludge pumps 4 and 5 their motors are younger (installed in 1999) and they do not require replacement at this time.

Project: 2.9 WWTP – Replace primary sludge pumps 1, 2, and 3

CIP Total Cost: $50,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because these pumps are responsible for conveying primary sludge to the digesters. Since the WWTP's biological process relies on continuous removal of primary sludge, the pumps must be maintained in peak reliable condition at all times.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
50,000			50,000		

Project: 2.10 WWTP – Replace grit pumps 1 and 2 and appurtenances

Priority: Replacement and Rehabilitation

This project involves replacing grit pumps 1 and 2 (and associated motors) at the WWTP. These pumps are old and approaching the end of their useful lives. The motors have exceeded their useful lives. Useful life for pumping equipment and motors such as these is 40 years and 25 years respectively. Grit pump 3 and its motor are younger (installed in 1999) and it does not require replacement at this time.

Project: 2.10 WWTP – Replace grit pumps 1 and 2 and appurtenances

CIP Total Cost: $90,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because the grit pumps are responsible for conveying grit from the grit removal channel. Since the WWTP's primary clarifiers and downstream biological process rely on continuous removal of grit from the treatment process, these pumps must be maintained in peak reliable condition at all times.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
90,000				90,000	

Project: 2.11 Portola Pump Station – Repair deteriorated concrete in wet well

Priority: Replacement and Rehabilitation

This project involves performing detailed evaluation of the interior concrete surface of the walls and underside of the wetwell roof at the Portola Pump Station. Concrete exposed to sewage in a moist environment is subject to severe and rapid deterioration from sewer gases. Sulfur oxidizing bacteria in the wastewater convert hydrogen sulfide to hydrogen sulfate and combine with water to form sulfuric acid which deteriorates the cementitious bond of the concrete. The condition of the walls and roof will dictate the level of effort required to repair the concrete which may include hydro-blasting, cleaning, and coating with protective cementitious or epoxy coatings.

Project: 2.11 Portola Pump Station – Repair deteriorated concrete in wet well

CIP Total Cost: $40,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because concrete deterioration could compromise the reliability of the pump station. Sulfuric acid on the concrete surfaces causes them to become soft and aggregates begin to be exposed. Left unrepaired, the rebar will become exposed to the same aggressive process and accelerated corrosion eventually leading to structural failure.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
50,000			10,000	40,000	

Project: 2.12 WWTP – Replace chain and flights and collector gear reducer in primary clarifier

Priority: Replacement and Rehabilitation

This project involves replacing the sludge chains, flights, and collector gear reducer in primary clarifiers 1, 2, and 3. The existing chain and flights have been in service since the mid to late 1990s. This continuously moving equipment operates in a harsh environment and its useful life is generally only 10 years. Therefore these chains and flights are significantly over due for replacement. The flight drive assemblies including the gear reducer are close to or have exceeded their useful life also.

Project: 2.12 WWTP – Replace chain and flights and collector gear reducer in primary clarifier

CIP Total Cost: $150,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it is essential to maintain reliable operation of the three primary clarifiers at all times. A chain or gear reducer failure would cause catastrophic problems for the plant's biological process since the primary clarifiers not only process incoming wastewater, but also serve to settle and remove waste activated sludge (WAS) from the system.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
150,000					150,000

Project: 2.13 WWTP – Replace sludge mixing pump (1 quantity), sludge recirculation pump (1 quantity), and sludge transfer pumps (2 quantity)

Priority: Replacement and Rehabilitation

This project involves replacing four pumps that support the sludge digestion process. These pumps are nearing the end of their useful lives and need to be replaced with modern and more efficient equipment. Repair and replacement parts for these pumps are becoming difficult to obtain as the pumps continue to age.

Project: 2.13 WWTP – Replace sludge mixing pump (1 quantity), sludge recirculation pump (1 quantity), and sludge transfer pumps (2 quantity)

CIP Total Cost: $150,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it involves replacing critical pumps that are essential for the continued reliable digestion of the plant's waste sludge. If these pumps are out of service for a prolonged period of time (while replacement parts are ordered and installed) the digestion process will be negatively impacted.

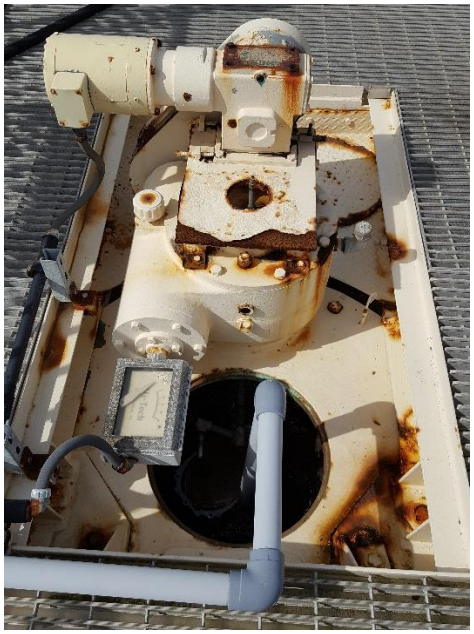
Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
150,000					150,000

Project: 2.14 WWTP – Replace secondary clarifier mechanism

Priority: Replacement and Rehabilitation

This project involves replacing the secondary clarifier drives 1 and 2. The existing drives have been in service since the late 1990s. This continuously moving equipment operates in a harsh environment and they are nearing the end of their useful live.



Project: 2.14 WWTP – Replace secondary clarifier mechanism

CIP Total Cost: $100,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because the equipment is nearing the end of its useful life. Obtaining replacement parts for this equipment (if still being manufactured) would require significant lead time that will render the plant without a secondary clarifier in the event of a failure.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
100,000					100,000

Project: 2.15 WWTP – Replace screenings conveyor at headworks (motor, support, gear box, and brushes)

Priority: Replacement and Rehabilitation

This project involves replacing the screenings conveyor at the headworks including the motor, supports, gear box, and brushes. This continuously operating equipment is located outdoors and subjected to not only the harsh wastewater environment but also the natural elements. The equipment was installed in 1999 with the mechanical bar racks and is nearing the end of its useful life and should be replaced with modern and more efficient components.

Project: 2.15 WWTP – Replace screenings conveyor at headworks (motor, support, gear box, and brushes)

CIP Total Cost: $125,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it replaces equipment that is nearing the end of its useful life. This equipment is important to the continued reliable operation of the mechanical bar screen that they serve. Together this equipment serves as the first wastewater treatment process.

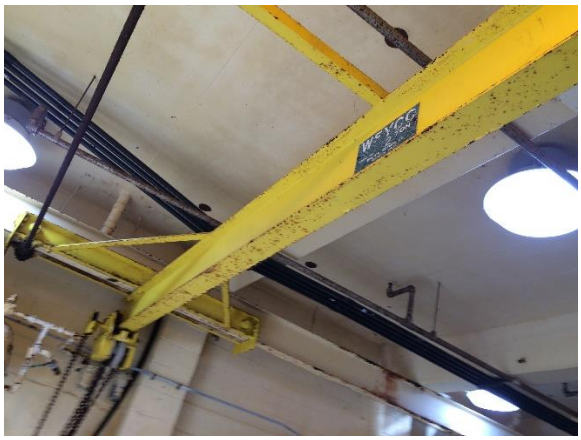
Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
125,000					125,000

Project: 2.16 WWTP – Rehabilitate sludge dewatering building crane, rollup door, and other deteriorated assets it the Belt Filter Press (BFP) room

Priority: Replacement and Rehabilitation

This project involves rehabilitation of the dewatering building crane which is located in the BFP room. This project also includes repairing and/or replacing the rollup metal door which is exhibiting corrosion of its mechanical gears exposed to the corrosive BFP room environment.



Project: 2.16 WWTP – Rehabilitate sludge dewatering building crane, rollup door, and other deteriorated assets it the BFP room

CIP Total Cost: $60,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because the crane and rollup door are showing signs of corrosion due the corrosive atmosphere and should be refurbished so that they are reliably available when needed and they do not present a safety hazard for SAM staff that operate them.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
60,000		60,000			

Project: 2.17 Montara Pump Station – Repair deteriorated external electrical conduits

Priority: Replacement and Rehabilitation

This project involves replacing the heavily corroded electrical conduits on the exterior of the Montara Pump Station. The sea salt laden air and moisture along the coast is particularly corrosive to ferrous metals that are not coated or otherwise passivated. The conduits are PVC coated rigid steel and connect the pump station to the emergency generator located in an adjacent building. Instrumentation and control wiring is also run in these conduits.

Project: 2.17 Montara Pump Station – Repair deteriorated external electrical conduits

CIP Total Cost: $75,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it replaces badly deteriorated electrical conduits that house power distribution, instrumentation, and communication conductors the power and control the backup generator system.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
75,000				75,000	

Project: 2.18 WWTP – Replace grit washer

Priority: Replacement and Rehabilitation

This project involves replacing the grit washer at the WWTP. The grit washer has been in service for 17 years and is reaching the end of its useful life and should be replaced. Replacement parts are becoming more difficult to obtain as the equipment continues to age.

Project: 2.18 WWTP – Replace grit washer

CIP Total Cost: $40,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it replaces equipment that is reaching the end of its useful life. Should the grit washer have a catastrophic failure it would negatively impact the pre-treatment wastewater treatment process and disrupt the grit removal system.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
40,000					40,000

Project: 2.19 Portola Pump Station – Recondition odor control system

Priority: Replacement and Rehabilitation

This project involves reconditioning of the odor control system at the Portola Pump Station. The existing system consists of a positive displacement fan that maintains negative pressure on the wetwell. The negative pressure prevents fugitive odors from escaping to the environment. The fan blows the foul air to a biofilter located in front of the pump station. The biofilter is a rectangular shallow bark mulch bed that is moistened periodically by sprinkler heads. Perforated pipes below the bark mulch distribute the foul air throughout the bed. As air rises through the bed hydrogen sulfide and odors are removed by the bacteria and other micro-organisms in the moist bark mulch.

This project involves reconditioning the blower and replacing the bark much mulch in the biofilter and refurbishing the sprinkler heads.

Project: 2.19 Portola Pump Station – Recondition odor control system

CIP Total Cost: $50,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it refurbishes the exhaust fan and replaces the old mulch in the biofilter bed with new product so that the air scrubbing process works efficiently and effectively.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
50,000					50,000

Project: 2.20 Montara Pump Station – Repair/replace front door and frame and generator room door and frame

Priority: Replacement and Rehabilitation

This project involves replacing the heavily corroded metal doors and door frames at the Montara Pump Station and the adjacent generator room. The sea salt laden air and moisture along the coast is particularly corrosive to ferrous metals that are not coated or otherwise passivated.

Project: 2.20 Montara Pump Station – Repair/replace front door and frame and generator room door and frame

CIP Total Cost: $40,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it replaces exterior doors that have exceeded their useful lives and are exhibiting significant corrosion. These doors are important assets as they protect the equipment inside from the elements and prevent non-qualified persons from gaining entry.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
40,000				40,000	

Project: 2.21 Portola Pump Station – Evaluate the condition of the fresh water pressurization tank and appurtenances

Priority: Replacement and Rehabilitation

This project involves performing a thorough condition assessment of the fresh water pressurization system at the Portola Pump Station. The system consists of a hydro-pneumatic tank and two pumps that serve the fresh water needs of the facility. The system was installed in 1983 and is nearing the end of its useful life.

Project: 2.21 Portola Pump Station – Evaluate the condition of the fresh water pressurization tank and appurtenances

CIP Total Cost: $5,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it determines the condition of the existing system and the need for replacing or upgrading components. Although there is no history of problems with the system, a thorough assessment of all its components is prudent to assure future long-term reliability of the system.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
5,000		5,000			

Project: 2.22 WWTP – Replace No. 3 water pumps and tank

Priority: Replacement and Rehabilitation

This project involves replacing the No. 3 water pressurization system at the WWTP. The system consists of a hydro-pneumatic tank and two pumps that serve the No. 3 water needs of the WWTP. The pumps were installed in 1983 and are now approaching the end of their useful lives. The motors have exceeded their useful lives. Useful life for pumping equipment and motors such as these is 40 years and 25 years respectively.

Project: 2.22 WWTP – Replace No. 3 water pumps and tank

CIP Total Cost: $80,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it involves replacing pumps that about to exceed their useful lives. These pumps are responsible for distribution of No. 3 water across the WWTP for a wide variety of important uses and therefore they must be maintained in peak reliable condition at all times.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
80,000			80,000		

Project: 2.23 WWTP – Replace No. 2 water pumps and tank

Priority: Replacement and Rehabilitation

This project involves replacing the No. 2 water pressurization system at the WWTP. The system consists of three hydro-pneumatic tanks and three pumps that serve the No. 2 water needs of the WWTP. The pumps were installed in 1983 (1999 for pump 3) and are now approaching the end of their useful lives. The motors to pumps 1 and 2 have exceeded their useful lives. Useful life for pumping equipment and motors such as these is 40 years and 25 years respectively.

Project: 2.23 WWTP – Replace No. 2 water pumps and tank

CIP Total Cost: $80,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it involves replacing pumps and motors that are about to exceed their useful lives. The hydro-pneumatic tanks will be evaluated to determine if their replacement is warranted. These pumps and tanks are responsible for distribution of No. 2 water across the WWTP for a wide variety of important uses and therefore they must be maintained in peak reliable condition at all times.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
80,000				80,000	

Project: 2.24 WWTP – Perform disinfection alternatives analysis

Priority: Replacement and Rehabilitation

This project involves performing a study to evaluate options for replacing the WWTP's disinfection system with an alternative means. Options to be considered include ultraviolet (UV) disinfection.

Project: 2.24 WWTP – Perform disinfection alternatives analysis

CIP Total Cost: $50,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it may present a viable means of providing disinfection of the plant's effluent in lieu of the current use of sodium hypochlorite. This process change could be less expense and will eliminate the need for SAM staff to be exposed to chlorine derivatives and associated de-chlorination chemicals (sodium bisulfite).

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
50,000					50,000

Project: 2.25 Portola Pump Station – Replace the flowmeter in a vault outside the station

Priority: Replacement and Rehabilitation

This project involves relocating the exiting magnetic flow meter on the discharge force main to a location outside the pump station building. The existing meter is located in the vertical position inside the building and concern has been raised that the amount of straight pipe upstream and downstream of the meter may be insufficient for accurately measuring flow. The proposed project would place the meter in a new vault in the driveway of the pump station with sufficient straight pipe upstream and downstream.

Project: 2.25 Portola Pump Station – Replace the flowmeter in a vault outside the station

CIP Total Cost: $150,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it relocates and/or replaces the existing magnetic flow meter. It is important to accurately measure the wastewater flow at this location as this is the most critical and largest pump station in the IPS system.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
150,000					150,000

Project: 2.26 Montara Pump Station – Replace the flowmeter in a vault outside the station

Priority: Replacement and Rehabilitation

This project involves relocating the exiting magnetic flow meter on the discharge force main to a location outside the pump station building in the existing pig launching vault. The existing meter is located in the vertical position inside the building and concern has been raised that the amount of straight pipe upstream and downstream of the meter may be insufficient for accurately measuring flow. The proposed project would place the meter in a re-purposed vault in the driveway of the pump station with sufficient straight pipe upstream and downstream.

Project: 2.26 Montara Pump Station – Replace the flowmeter in a vault outside the station

CIP Total Cost: $150,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it relocates and/or replaces the existing magnetic flow meter. It is important to accurately measure the wastewater flow at this location as this is one of the largest pump station in the IPS system.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
150,000					150,000

Project: 2.27 Montara Pump Station – Evaluate chemical storage tank and metering pumps

Priority: Replacement and Rehabilitation

This project involves performing a detailed condition assessment of the chemical storage and metering pump system at the Montara Pump Station.

Project: 2.27 Montara Pump Station – Evaluate chemical storage tank and metering pumps

CIP Total Cost: $5,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 2 because it may require rehabilitation of the exiting storage and pumping system if it is found to be deficient. SAM's stores sodium hypochlorite on site for odor control purposes and the system has leaked in the past which caused damage to the building. It is therefore prudent to carefully examine the existing system for deficiencies and repair them promptly.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
5,000		5,000			

VII. PRIORITY LEVEL 3 – PROJECT SHEETS

Projects not meeting the criteria for Priority Level 1 or 2 are ranked as Priority Level 3. These projects are needed, albeit may not yet have defined scopes, schedules, or funding sources. Many factors exist that may promote Level Three projects to Level One or Two such as the release of new regulations and legislation or the availability of funding.

Priority Level 3 - Sustainability/Energy/Optimization Projects. This category focuses on projects that optimize existing processes, or energy efficiency, and sustainability of the treatment plant, IPS, and other facilities. The goals are to continue upgrading and improving the treatment plant's existing infrastructure and systems to optimize to reduce energy use, lower maintenance costs, and prevent major failures.

Table 7 contains Sustainability/Energy/Optimization Projects. A detailed discussion of these projects follows.

Table 7. Priority Level Three – Sustainability/Energy/Optimization Projects

No.	Description
3.1	Install WAS gravity thickener at WWTP
3.2	Install grit chamber at Montara PS
3.3	Replace aeration blowers at WWTP
3.4	Study beneficial sludge and digester gas reuse
3.5	Montara PS: Replace pumps 1 & 2 w/ chopper pumps
3.6	Upgrade/replace grit blowers at WWTP
3.7	Install diffusers, piping, valving and other appurtenances at Aeration Basin # 4

Program: 3.1 Install WAS gravity thickener at the WWTP

Priority: Sustainability/Energy/Optimization

This project involves improving the plant's performance by diverting the waste activated sludge (WAS) from the primary settling tanks and sending it to the anaerobic digesters. To accomplish this WAS will need to be thickened by a new screw press or other means.

Project: 3.1 Install WAS gravity thickener at the WWTP

CIP Total Cost: $300,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 3 because it is a discretionary project that will benefit the performance of the plant and increase overall efficiency, but is not regulatory driven or a safety concern.

The current practice of sending WAS to the primary settling tanks is unconventional and inefficient. A mechanical thickener would be installed to increase the percent solids of the WAS before it is sent to the digesters. Benefits will include: increased efficiency of the primary clarifiers and secondary aeration system; improved performance of the digesters; and potentially increase digester gas production.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
300,000	300,000				

Program: 3.2 Montara Pump Station – Install grit removal chamber

Priority: Sustainability/Energy/Optimization

This project involves installation of a grit chamber at the Montara Pump Station to intercept and collect grit, sand, and rocks that otherwise will collect in the wetwell.

Project: 3.2 Montara Pump Station – Install grit removal chamber

CIP Total Cost: $125,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 3 because it is a discretionary project that will benefit the performance of the Montara Pump Station, increase reliability of the pumps, and reduce maintenance and danger associated with removing the grit and rocks from the wetwell manually as is done currently.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
125,000				125,000	

Program: 3.3 WWTP – Replace aeration blowers

Priority: Sustainability/Energy/Optimization

This project involves replacing the aeration blowers at the WWTP with modern and more efficient blowers. The existing blowers are old and approaching the end of their useful lives. The motors have exceeded their useful lives. Useful life for blowers and motors such as these is 40 years and 25 years respectively.

Project: 3.3 WWTP – Replace aeration blowers

CIP Total Cost: $400,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 3 because it is a discretionary project that will benefit the performance of the WWTP and save electricity by providing modern and more efficient blowers in the secondary aeration system. This project will replace aging assets that will be expensive to repair in the future as replacement parts are no longer available or difficult to obtain.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
400,000		400,000			

Program: 3.4 WWTP – Study beneficial sludge and digester gas re-use

Priority: Sustainability/Energy/Optimization

This project involves conducting a study into the beneficial re-use of sludge and digester gas from the WWTP. Class A sludge has market value as a soil amendment and digester gas (methane) and can be used to run engine-driven electric generators.

Project: 3.4 WWTP – Study beneficial sludge and digester gas re-use

CIP Total Cost: $30,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 3 because it is a discretionary project that may benefit the performance of the WWTP and provide beneficial re-use of sludge cake as a soil amendment and methane gas as a form of energy.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
30,000					30,000

Program: 3.5 Montara Pump Station – Replace pumps 1 and 2

Priority: Sustainability/Energy/Optimization

This project involves replacing pumps No. 1 and No. 2 at the Montara Pump Station with submersible grinder style pump similar to pump No. 3. Pumps No. 1 and No. 2 were installed in 1983 and 1999 respectively and are now approaching the end of their useful lives.

Project: 3.5 Montara Pump Station – Replace pumps 1 and 2

CIP Total Cost: $400,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 3 because it is a discretionary project that will benefit the performance and reliability of the Montara Pump Station by replacing pumps No. 1 and No. 2 with higher efficiency grinder style pumps.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
400,000				200,000	200,000

Program: 3.6 WWTP – Upgrade/replace grit blowers

Priority: Sustainability/Energy/Optimization

This project involves upgrading and replacing the grit blowers at the WWTP with new modern and more efficient blowers. The existing blowers were installed in 1983 and are now approaching the end of their useful lives. The motors have exceeded their useful lives. Useful life for blower and motors such as these is 40 years and 25 years respectively.

Project: 3.6 WWTP – Upgrade/replace grit blowers

CIP Total Cost: $75,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 3 because it is a discretionary project that will benefit the performance of the WWTP by replacing the grit blowers with more reliable equipment.

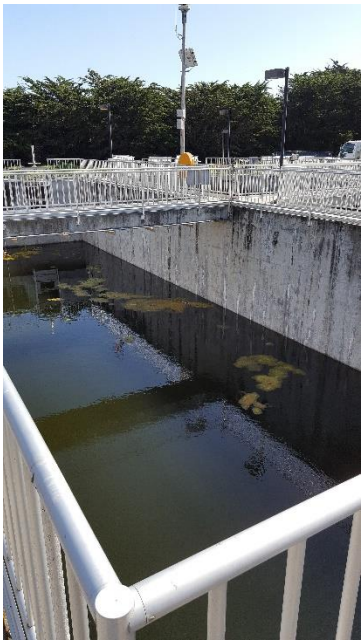
Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
75,000				75,000	

Program: 3.7 WWTP – Install diffusers, piping, valving, and other appurtenances in aeration basin No. 4

Priority: Sustainability/Energy/Optimization

This project involves installing diffused aeration equipment in what is currently an empty and unused aeration tank and bringing it online.



Project: 3.7 WWTP – Install diffusers, piping, valving, and other appurtenances in aeration basin No. 4

CIP Total Cost: $300,000

Project Funding: This project will be funded by SAM's Infrastructure Program

Basis of Priority: This project is ranked as Priority Level 3 because it is a discretionary project that will benefit the performance of the WWTP by providing increased aeration capability.

Annual Cost Distribution and Schedule

CIP Total	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
300,000		300,000			

VIII. APPENDIX

Risk evaluation for Priority Level 1 (Regulatory and Safety) Projects

OVERALL RATING												
Item #	Unit process	Equipment Unit	Equipment (mech., elec., instr..)	Probability of Failure	Consequences of Failure			Overall Rating	Risk Score	Current Age 2017	Est. Useful Life	Remain Useful Life
					Effluent Quality	Treatment Capacity	Serviceability					
					33 %	33 %	34 %					
1	Princeton PS MCC Room	Building	Watertightness of south wall	10	5	10	10	8.4	84	34	40	6
2	Portola PS	Pumps	Pumps 1 &2	10	5	10	10	8.4	84	18	20	2
3	Portola PS	Surge System	Surge Tank	10	5	10	10	8.4	84	34	20	-14
4	Princeton PS	Complete Pump Station	Princeton PS	10	5	10	10	8.4	84	34	20	-14
5	Princeton PS/Montara PS and Portola PS	ATS	ATS	10	10	10	5	8.3	83	34	15	-19
6	Sludge dewatering	Belt Filter Press	Spare parts for BFP/Main Conveyor	10	5	5	10	6.7	67	19	20	1
7	Electrical	Switchgear at WWTP	Main service switchgear	10	5	1	10	5.4	54	19	20	1
8	Portola PS	Hatch on Wet well	Hatch	5	5	10	10	8.4	42	34	50	16
9	Disinfection	Chemical Metering at WWTP	Pumps	5	10	10	5	8.3	42	18	20	2
10	Sludge dewatering	Ventilator on Mech Bldg 1 in Press Room	Air handling	10	1	1	5	2.4	24	19	20	1
11	Sludge dewatering	New longer conveyor for bin area	Conveyors	0.5	1	1	5	2.4	1	29	20	-9

Risk evaluation for Priority Level 2 (Replacement and Rehabilitation) Projects

OVERALL RATING												
Item #	Unit process	Equipment Unit	Equipment (mech., elec., instr..)	Probability of Failure	Consequences of Failure			Overall Rating	Risk Score	Current Age 2017	Est. Useful Life	Remain Useful Life
					Effluent Quality	Treatment Capacity	Serviceability					
					33%	33%	34%					
1	Force Main	Granada Force Main	Force Main	10	10	10	10	10.0	100	34	25	-9
2	Sludge Digestion	Heat Exchanger	Heat Exchanger and Shell	10	5	10	10	8.4	84	19	20	1
3	Sludge Digestion	Heat Exchanger	Burner System	10	5	10	10	8.4	84	19	20	1
4	Emergency Power	Emergency Generator @ Portola PS	Emergency Generator	7.5	10	10	10	10.0	75	34	15	-19
5	Emergency Power	Emergency Generator @ Montara PS	Emergency Generator	7.5	10	10	10	10.0	75	34	15	-19
6	Emergency Power	Emergency Generator @ WWTP	Emergency Generator	7.5	10	10	10	10.0	75	29	15	-14
7	Influent Pumping	Influent pumps	Influent pumps	10	1	5	10	5.4	54	34	15	-19
8	Effluent Pumping	Effluent Pumps	Pumps	10	1	5	10	5.4	54	34, 34, 18	15	-17, -17, -3
9	Primary Treatment	Primary Sludge Pumps	Pumps 1, 2, 3	10	5	5	5	5.0	50	34, 34, 34	40	6,6, 6
10	Grit Removal	Grit Pumps	Girt pumps 1, 2 & appurt.	10	5	5	5	5.0	50	34, 34, 34	40	6,6, 6
11	Portola PS	Wet well	Wet well - rehab	7.5	5	5	10	6.7	50	34	50	16

			deteriorated concrete									
12	Primary Treatment Process	Primary Clarifier	Chain and flights & collector gear reducer	7.5	5	5	10	6.7	50	21	20	-1
13	Anaerobic Digestion	Sludge mixing, recirculation and transfer	Pumps	10	5	5	5	5.0	50	19	20	1
14	Secondary Clarification	Secondary Clarifier	Drive mechanism	5	5	10	10	8.4	42	19	20	1
15	HeadWorks	Screenings Conveyor	Conveyor	5	5	10	10	8.4	42	18	20	2
16	Sludge Dewatering	Crane	Crane and Roll up door	2.5	10	10	10	10.0	25	34	20	-14
17	Montara PS	Electrical	Exterior electrical Conduits	2.5	10	10	10	10.0	25	34	15	-19
18	Primary Treatment Process	Grit Removal	Grit Washer	2.5	5	10	10	8.4	21	17	20	3
19	Odor Control	Odor Control @ Portola PS	Recondition Odor Control	2.5	5	10	10	8.4	21	15	15	0
20	Emergency Power	Emergency Power Station at Montara	Replace front door and generator door frames	2.5	5	5	5	5.0	13	34	15	-19
21	Fresh water system	Fresh water system at Portola	Fresh Water Tank and Appurtenances	2.5	5	5	5	5.0	13	34	15	-19
22	Water systems	Pumps and Tank	#3 water pump & tank	0.5	5	1	10	5.4	3	34	40	6
23	Water Systems	Pumps and Tank	#2 water pump & tank	0.5	5	1	10	5.4	3	34	40	6
24	Flow measurement at Portola PS	Flow meter	Flow meter	0.5	5	1	10	5.4	3	34	15	-19
25	Flow measurement at Montara PS	Flow meter	Flow meter	0.5	5	1	10	5.4	3	34	15	-19

Risk evaluation for Priority Level 3 (Sustainability and Energy Savings) Projects

OVERALL RATING												
Item #	Unit process	Equipment Unit	Equipment (mech., elec., instr..)	Probability of Failure	Consequences of Failure			Overall Rating	Risk Score	Current Age 2017	Est. Useful Life	Remain Useful Life
					Effluent Quality	Treatment Capacity	Serviceability					
					33 %	33 %	34 %					
1	Aeration Process	Blowers at WWTP	Blowers	10	10	10	10	10.0	100	34	15	-19
2	Montara PS	Pumps	Pumps 1 and 2	10	1	5	5	3.7	37	34	20	-14
3	Grit Removal	Grit Blower	Blowers	10	1	5	5	3.7	37	34	15	-19

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **May 3, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Review and Possible Action Concerning Installation of a New Nitrate Treatment Facility for the Airport Well No. 3

In the January 30, 2017 and May 18, 2017 letters (attached), the Division of Drinking Water (Division) to the Montara Water and Sanitary District (District) noted that the District's Airport Well 3 (AW3) has exhibited several water quality issues including: 1) exceedance of the nitrate (as N) maximum contaminant level (MCL) of 10 mg/L and 2) exceedance of the manganese MCL of 0.05 mg/L. The District responded to the Division's request with a proposed action plan that addresses the issues above as follows:

1. Rehabilitate AW3 to reduce the manganese accumulation, and

2. Install a new ion exchange (IX) treatment system at AW3 to address the nitrate exceedance.

Staff has been working on the design for the treatment facility and with vendors and contractors to solicit quotations for the Board's consideration. The package includes the facility design documents for the Board's review and includes one item where staff felt a sole-source consideration was appropriate due to the need to ensure compatibility of the treatment system controls with the existing District's SCADA system and control equipment. The AW3 Well Upgrade Bid Documents will be provided to the Board on Monday, May 1, 2018. Engineer's opinion of the probable construction cost for the AW3 rehabilitation and treatment upgrades, excluding the controls and electrical work described below is $100,000.

Staff solicited a quote from Calcon Systems, Inc., an automation and process controls firm that has been providing support to the District with its SCADA system and controls equipment. As it is critically important to ensure equipment compatibility, a sole-source selection is recommended for the AW3 Controls Upgrade. A quote from Calcon Systems, Inc. for $60,000 to complete the work is attached.

The existing well upgrade program is included in the District's 5-year Capital Improvements Program at $865,452 for the first five years and a total of $3,389,000 over the next 20 years.

RECOMMENDATIONS:

1. ADOPT RESOLUTION NUMBER _____OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING AND AUTHORIZING EXECUTION OF AMENDMENT NO. 3 FOR AIRPORT WELL 3 REHABILITATION AND TREATMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING EXEMPTION OF THE PROJECT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") AND AUTHORIZING AND DIRECTING FILING CEQA NOTICE OF EXEMPTION;
2. ADOPT RESOLUTION NUMBER _____OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING CONTRACT DOCUMENTS, INCLUDING DESIGN, PLANS AND SPECIFICATIONS, FOR AIRPORT WELL 3 REHABILITATION AND TREATMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING EXEMPTION OF THE PROJECT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND AUTHORIZING AND DIRECTING FILING NOTICE OF EXEMPTION;
3. ADOPT RESOLUTION NUMBER _____OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING AND AUTHORIZING WAIVER OF COMPETITIVE BIDDING FOR AIRPORT WELL 3 CONTROLLER UPGRADE PROJECT.

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 30, 2017

Mr. Clemens Heldmaier
District Manager
Montara Water and Sanitary District
P.O. Box 370131
Montara, CA 94037

Dear Mr. Heldmaier:

AIRPORT WELLS – CORRECTIVE ACTION PLAN
Montara Water and Sanitary District, Water System No. 4110010

This letter is in regards to the water quality and operating status of Montara Water and Sanitary District's (MWSD) Airport Wells. The Airport Wells consist of Airport Well 3 (Well 3, Primary Station Code (PSC) 4110010-010), South Airport Well (SAW, PSC 4110010-012) and North Airport Well 02 (NAW, PSC 4110010-015). The Airport Wells have several water quality issues including: 1) exceedance of the nitrate (as N) maximum contaminant level (MCL) of 10. mg/L from Well 3 and NAW; 2) exceedance of the manganese MCL of 0.05 mg/L from Well 3 and SAW; and 3) detections of 1,2,3-trichloropropane (1,2,3-TCP) above the 0.005 ug/L drinking water notification level in all three wells. All three wells are currently classified as active sources; however, Well 3 and SAW are currently offline because treatment is not provided for the nitrate and/or manganese exceedances. Nitrate ion exchange treatment was installed at NAW in 2005. In addition to the source water quality exceedances, water pumped from the Airport Wells has a high corrosion potential due to the low pH water. MWSD has been out of compliance with the Lead and Copper Rule since 1993 with the copper 90th percentile above the action level of 1.3 mg/L at the consumers' tap when the Airport Wells are in service. To address the water quality concerns from the Airport Wells, MWSD applied for State Revolving Fund (SRF, Project No. 4110010-024) in January 2007 to construct a centralized treatment facility that includes air stripping, nitrate, manganese and 1,2,3-TCP treatment units. In 2013, MWSD changed course in its planning process to pursue construction of replacement wells instead of centralized treatment and terminated SRF Project No. 4110010-24. Since then, MWSD has not submitted any permit documents to proceed with the construction of the replacement wells. As such, by **March 15, 2017**, MWSD must submit to the Division a Corrective Action Plan to address the source water quality exceedances and corrosion control treatment for the Airport Wells.

If you have any questions regarding this letter, please contact Ms. Van Tsang at (510) 620-3602.

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

cc: San Mateo County Environmental Health

May 18, 2017

Mr. Clemens Heldmaier
District Manager
Montara Water and Sanitary District
P.O. Box 370131
Montara, CA 94037

Dear Mr. Heldmaier:

2017 SANITARY SURVEY FINDINGS
Montara Water and Sanitary District, Water System No. 4110010

This letter confirms the findings of the April 27, 2017 and May 3, 2017 sanitary survey of the Montara Water and Sanitary District (MWSD) water system. Ms. Van Tsang of the Division of Drinking Water (Division) conducted the inspection in the presence of Mr. Julian Martinez. During the inspection, system facilities including the Alta Vista Water Treatment Plant (AVWTP), Alta Vista Tanks 1 and 2, School House Tanks, Portola Tank, Alta Vista Well, Airport Wells, Drake Well, Portola Wells, Wagner Well and the Pillar Ridge Mobile Home Park treatment and storage systems were inspected. Below are our findings from the inspections. Please provide a response, in writing, by **June 30, 2017**.

Transition Plan for Airport Wells

On January 30, 2017, the Division issued a letter requiring MWSD to submit a Corrective Action Plan by March 15, 2017 to address the water quality and operating status of the Airport Wells. The letter noted that the Airport Wells (Airport Well 3, South Airport Well (SAW) and North Airport Well 02 (NAW)) have several water quality issues including: 1) exceedance of the nitrate (as N) maximum contaminant level (MCL) of 10. mg/L from Well 3 and NAW; 2) exceedance of the manganese MCL of 0.05 mg/L from Well 3 and SAW; and 3) detections of 1,2,3-TCP above the proposed MCL of 5 parts per trillion. In addition, water pumped from the Airport Wells has high corrosion potential due to the low pH water. MWSD has been out of compliance with the Lead and Copper Rule (LCR) since 1993 with the copper 90th percentile above the action level of 1.3 mg/L at the consumer's tap when the Airport Wells are in service.

The Airport Wells Transition Plan (Plan), submitted on March 15, 2017, proposed a gradual transition of the Airport Wells to a standby source status over a 5-year timeline, starting with Well 3, SAW then NAW. The transition is contingent upon acquiring additional water supply to compensate for the reduction in rated capacity from the Airport Wells. The Plan proposed to seek additional water supply through acquiring property owned by the California Department of

Transportation (Caltrans) and constructing additional wells. The Plan however did note that the acquisition of the Caltrans property may take a substantial amount of time, with MWSD having little to no control over the property transfer timing. The Plan also noted an alternative to conserve MWSD's supply capacity is to rehabilitate existing groundwater wells to restore and increase their respective capacity.

While the Division generally supports the construction of groundwater supply wells to enhance a water system's ability to meet demands, implementing of a plan that MWSD has little to no control over is ill-advised. If MWSD chooses to pursue the Plan, MWSD must provide monthly updates to the Division on your progress to transition SAW from active to standby status in 3 years and NAW in 5 years. Please note that Well 3 cannot be considered as a standby source as the well exceeds the nitrate MCL and cannot be activated in emergencies or normal operating conditions unless treatment is provided to reduce the nitrate concentration to below standard before distribution. Well 3 will be reclassified from active to inactive in 18 months if the water quality issues are not addressed by then.

If MWSD wishes to pursue an alternate plan, please submit a revised Corrective Action Plan by June 30, 2017.

Lead and Copper Rule Monitoring

The LCR requires community water systems to monitor lead and copper levels at the consumers' taps. According to Division records, MWSD last monitored for lead and copper for compliance in 2010. Compliance monitoring has not continued since then because MWSD was working toward corrosion control treatment to address the copper exceedance when the Airport Wells are in service. With MWSD's recent decision to forgo treatment and continued use of NAW, MWSD must resume lead and copper monitoring throughout the MWSD service area. Based on the current number of people served, MWSD must conduct lead and copper tap sampling at a minimum of 40 sites by **September 30, 2017**.

Prior to conducting the monitoring, MWSD must conduct an evaluation of your distribution system to determine the construction materials (lead, copper and galvanized steel) exposed to water. Additional information from the following sources should also be collected to ensure the sample site criteria are met:

1. All plumbing codes, permits, and records in files of the building department(s) that indicate the plumbing materials installed within publicly and privately owned structures connected to the distribution system;
2. All inspections and records of the distribution system that indicate the material composition of the service connections connecting a structure to the distribution system; and
3. All existing water quality information, which include the results of prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

From the evaluation, MWSD shall identify a sampling pool of "tier 1" sampling sites consisting of single-family structures that:

1. Contain copper pipes with lead solder installed between 1982 and 1990; or
2. Contain lead pipes; or
3. Be served by a lead service line.

If there is an insufficient number of “tier 1” sites, MWSD must complete the sampling pool with “tier 2” sampling sites consisting of multiple-family residences that:

1. Contain copper pipes with lead solder installed between 1982 and 1990; or
2. Contain lead pipes; or
3. Area served by a lead service line.

If there is an insufficient number of “tier 1” and “tier 2” sampling sites, the sampling pool must be completed with “tier 3” sampling sites which consist of single-family structures that contain copper pipes with lead solder installed before 1983.

Please submit the evaluation report and monitoring plan to the Division for review and approval prior to monitoring.

Alta Vista Water Treatment Plant

Operations and Maintenance Plan and As-Builts

Section 64661, Chapter 17 (Surface Water Treatment Rule), Title 22 of the California Code of Regulations (CCR) requires a supplier to operate each surface water treatment plant in accordance with an operations plan that has been approved by the Division. The operations plan shall consist of a description of MWSD’s treatment plant performance monitoring program, unit process equipment maintenance program, filter media inspection program, operating personnel, including numbers of staff, certification levels and responsibilities; how and when each unit process is operated; laboratory procedures; procedures used to determine chemical dose rates; records; response to plant and watershed emergencies; and reliability features.

The latest Operations and Maintenance Plan (O&M Plan) dated June 2001, and as-builts for the AVWTP do not reflect MWSD’s current system infrastructures and operation and therefore, must be updated. Please include in the aforementioned response letter a schedule for submitting the updated O&M Plan and as-builts.

Contact Clarifier and Pressure Filter Bed Inspections

The AVWTP utilizes four contact clarifier pressure vessels and two multi-media pressure filters to remove particulate from the raw surface water supply. The performance of the contact clarifier and filters is largely dependent upon the condition of the media. Mudballs, cracks or uneven distribution of media create pathways for contaminants to migrate through the media bed. As such, it is critical for MWSD to physically inspect and evaluate the media within the contact clarifier and filters at least annually. During the inspection, Division staff was informed that the pressure filters were inspected in 2016 but records of the inspection were not kept. The contact clarifiers however cannot be inspected because of limited access into the vessels. Please discuss within the response letter how MWSD will verify the integrity of the media within the contact clarifiers.

For the pressure filters, please incorporate the following components into the next inspection and evaluation. Records of the inspection and evaluation must be kept and submitted to the Division for our review and records.

1. A review of historical records for media characteristics (media type, depth, effective size, uniform coefficient and specific gravity) and filter operation (filter loading rates, run time,

range of filter backwash rates, time in backwash mode, filter head loss and average applied turbidity).

2. An inspection of the existing media. A thorough examination for disturbances in the media surface should be conducted. If a crack, mound, hole, or depression is detected, record its location and size.

3. Free-board measurements of the surface washers. The free board distance is the distance from the top of the media to the bottom of the surface wash nozzle. The nozzles should be approximately 2 to 3 inches above the media. Missing nozzles should be located and replaced.

4. Free-board measurement of header. The free board distance in this situation is the distance from the top of the media to the top of the header. The free board distance to the top of the header provides information on how much the filter bed can expand before loss of media is experienced. The free-board measurements also provide information if any media has been lost since the last recorded measurements.

5. Media Probing. With a ½ inch diameter steel rod, probe media at pre-selected locations and determine media depth. The rod is to be slowly pushed through the filter media until the support media is reached. The total media depth should be compared with design specification for loss or gain of media.

6. Filter Coring. Coring analysis will help determine the effectiveness of filter backwash, polymer overdosing, allows the operator to check the actual depth of the medium, to obtain a medium size distribution profile across the entire depth of the filter bed and evaluate the movement of filter gravel. Filter coring should be performed before a filter backwash when the filter is at the end of its filter run and after a backwash. The before and after backwash samples are compared for the amount of sludge adhering to the media using the floc retention analysis (discussed below).

7. An assessment for mud ball, media interface, and media depth. After coring is completed, dig into the filter media with bare hands to determine thickness of anthracite and sand and interface, and whether mud balls are present. An interface of larger than 6 inches indicates the media may not be properly matched or that the final stage of the backwash cycle does not allow for adequate stratification.

8. Assessing Surface Washer. While the filter is drained, slowing turn on the surface wash system to provide enough water for the nozzles. Staff should observe for any missing or plugged nozzles and leaking pipes. Repairs or replacements should be made if necessary.

9. A filter bed expansion test. A key component for a filter bed to reliably produce high quality effluent is to provide adequate bed expansion in the backwash cycle in combination with a good surface wash system. Too little bed expansion will leave the bed with an overabundance of floc retention and this will shorten filter runs and risk the passage of particles into the finished water. Too much bed expansion can cause loss of media and strip away needed ripening that has been patiently built up over the preceding run, causing a need for a greater ripening period. Bed expansion can be measured using tools such as a Pan Pipe.

10. Floc Retention Analysis. Floc retention analysis is used to evaluate the amount of sludge (floc) retained on a unit volume of media across the depth of a bed at the end of a filter run and the cleanliness of the filter bed after a backwash.

System Improvements

Alta Vista Tank 1

As seen in Figures 1, 2 and 3, the Alta Vista Tank 1 is in poor condition with several patches of severe rust. The Division has noted corrosion issues with Tank 1 during each inspection over the past 10 years. MWSD has taken little to no actions to repair the tank, allowing it to deteriorate further each year. MWSD must take immediate actions to repair or replace Tank 1 before it fails and detrimentally impact the water supply and quality served to a large portion of your service area.

Alta Vista Tank 2

As seen in Figure 4, there is a hole on the side of the access hatch to allow water collected on the inside lip to drain out. The hole however also provides access for rodents or other sanitary hazards to enter the reservoir. Please install a screen at the opening.

Pillar Ridge Tank Overflow

The screen at the overflow discharge pipe on the Pillar Ridge Tank is torn and must be replaced to prevent the entrance of rodents into the tank.

The Division appreciates the assistance provided by Mr. Martinez during the inspection. If you have any questions regarding this letter, please contact Ms. Van Tsang at (510) 620-3602.

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Division of Drinking Water
State Water Resources Control Board

cc: San Mateo County Environmental Health

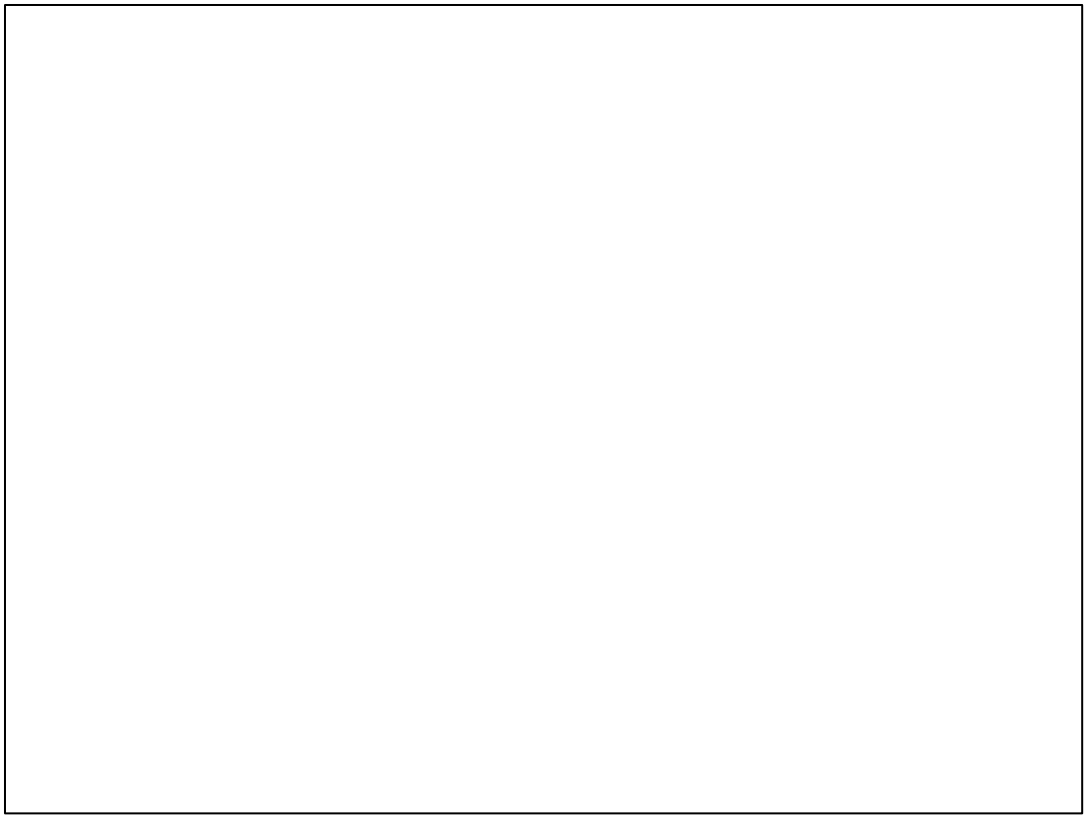


Figure 1. Alta Vista Tank 1 roof

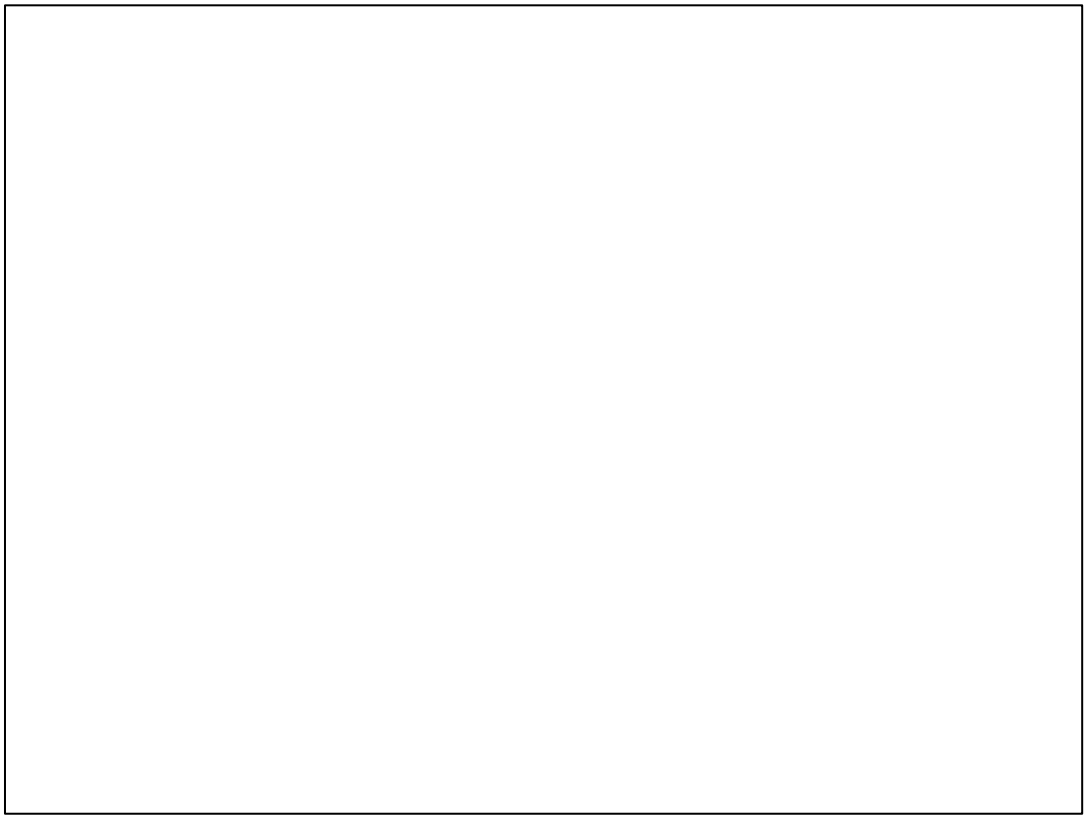


Figure 2. Alta Vista Tank 1 roof

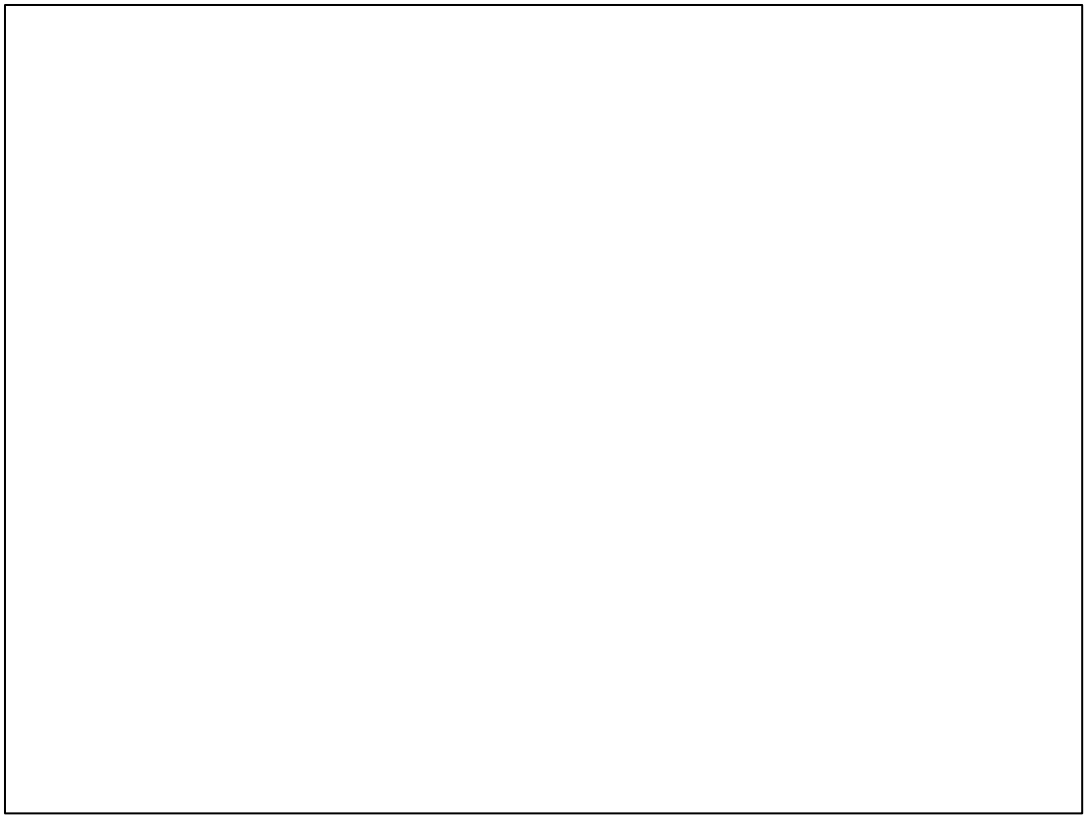


Figure 3. Alta Vista Tank 1 internal ladder

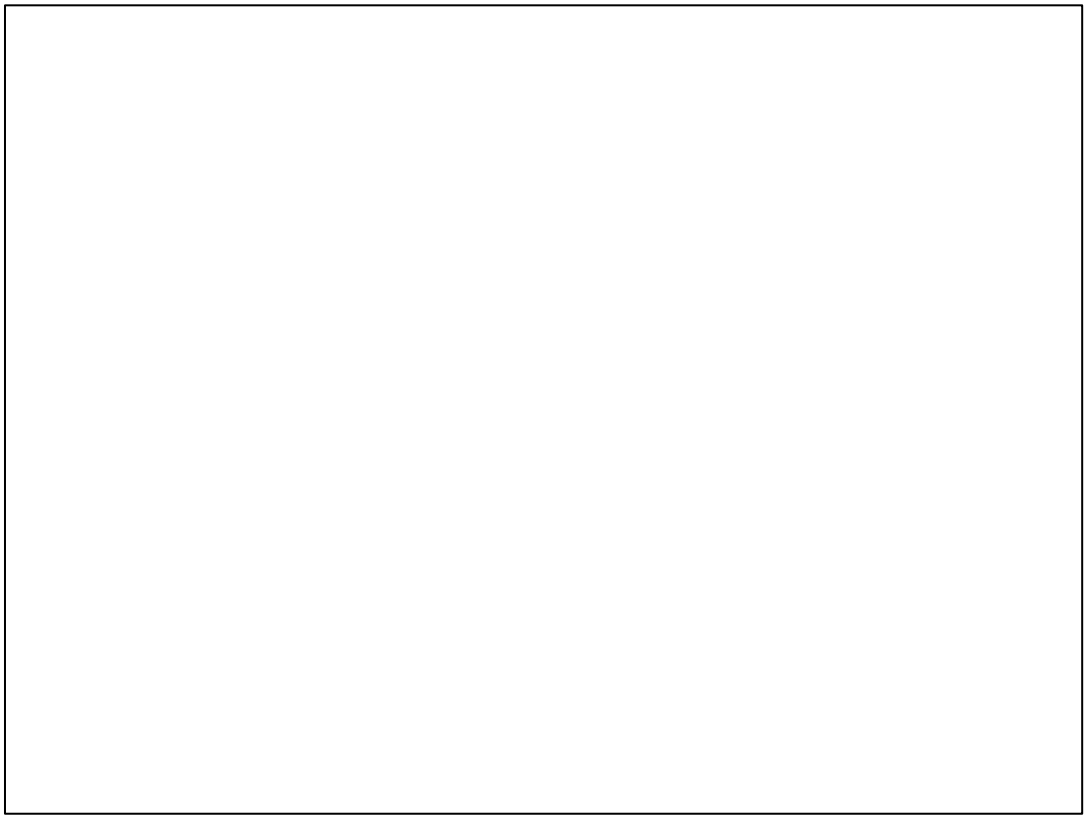


Figure 4. Alta Vista Tank 2 – hole on side of access hatch

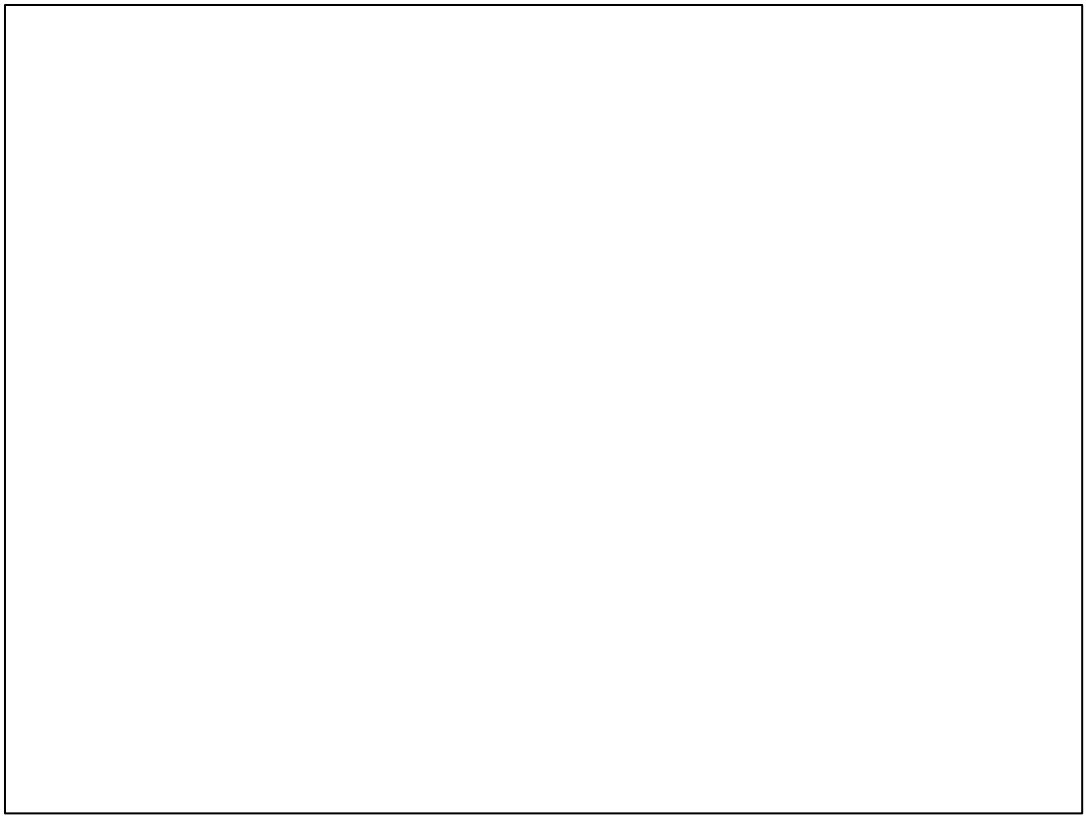


Figure 5. Pillar Ridge tank overflow pipe screen

November 16, 2017

Montara Water & Sanitary District
8888 Cabrillo Hwy.
Montara, CA 94037

Attention: Julian Martinez, Superintendent
Subject: Airport Well #3 Controls Upgrades

Mr. Martinez,

Calcon Systems is pleased to offer this estimate per your request for the upgrades we have discussed for the Airport Well #3 well site.

Airport Well #3:
Controls Upgrade

- Upgrade of Airport Well #3 controls to match Airport North, communicate with Schoolhouse and add to SCADA.
- Install new PLC control panel with PLC, power supplies, terminals, wire, etc. fabricated at our shop. Install HMI on outer door with cover.
- Panel design/wiring drawings.
- Existing Opto PLC will be replaced with new AutomationDirect model.
- Rewire existing power and field devices to new panel.
- Install new Nitrate Analyzer instrumentation
- Install new radio equipment to communicate to Airport North and SCADA (via Airport North).
- Programming for PLC, HMI, communications with Alta Vista and SCADA.
- Update SCADA system for new PLC.
- Startup and Testing – nitrate analyzer, PLC, VFD

- Additional electrical work may be required to bring the well back online, as the well has been offline for many years and the condition of conduits/wire/devices etc. is not known.
- The VFD may need to be replaced, due to age and not being used for many years.

We are providing budgetary/ROM estimate values below for what may be required to bring the well back to operable condition.

Pricing Estimates:

Controls Upgrade ……..……..……..……	approx.	$ 30,000.00
Additional electrical work, conduit/wire that may be required ……	approx.	$ 10,000.00
Nitrate Analyzer ……..……..……..……	approx.	$ 15,000.00
Replacement VFD ……..……..……..……	approx.	$ 5,000.00
Total budgetary estimate:		$ 60,000.00

Please Note: This estimate is valid for 90 days.

Best Regards,

Ryan Smith

Ryan Smith
Calcon Systems, Inc.
Cell (925) 570-5122
E-mail rsmith@calcon.com
License C-10 No. 508284

R E S O L U T I O N N O. ____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING AND AUTHORIZING EXECUTION OF AMENDMENT NO. FOR AIRPORT WELL 3 REHABILITATION AND TREATMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING EXEMPTION OF THE PROJECT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") AND AUTHORIZING AND DIRECTING FILING CEQA NOTICE OF EXEMPTION

WHEREAS, contract documents for the Airport Well 3 Rehabilitation and Treatment Project ("Project") have been presented to and reviewed by this Board; and

WHEREAS, the Project consists of the replacement or reconstruction of existing facilities and is thereby categorically exempt from the requirements of the California Environmental Quality Act ("CEQA," Pub. Res. C. §21000 et seq.; 14 CCR §15302); and

WHEREAS, this Board desires to proceed with the Project;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE MONTARA WATER AND SANITARY DISTRICT, A PUBLIC AGENCY IN THE COUNTY OF SAN MATEO, CALIFORNIA, AS FOLLOWS:

1. Those certain contract documents entitled, "Montara Water and Sanitary District – Airport Well 3 (AW3) Rehabilitation and Treatment," (dated May 2018) including, without limitation, the design, plans and specifications, a copy of which documents is on file in the District Administrative Offices to which reference is hereby made for the full particulars thereof, are hereby approved and the General Manager is hereby authorized and directed to advertise for bids for the Project.

2. This Board hereby determines that the Project is categorically exempt from the requirements of the California Environmental Quality Act ("CEQA;" Pub. Res. C. §21000 et seq.; 14 CCR §15302) because it consists of replacement or reconstruction of existing facilities. The Project is hereby approved for purposes of CEQA and the General Manager hereby authorized and directed to file a

R E S O L U T I O N N O. ____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING AND AUTHORIZING EXECUTION OF AMENDMENT NO. FOR AIRPORT WELL 3 REHABILITATION AND TREATMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING EXEMPTION OF THE PROJECT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") AND AUTHORIZING AND DIRECTING FILING CEQA NOTICE OF EXEMPTION

Notice of Exemption for the Project with the County Clerk, County of San Mateo, California (14 CCR §15062).

Dated: _____ _____

President, Montara Water and Sanitary District

COUNTERSIGNED:

Dated: _____ _____

Secretary, Montara Water and Sanitary District

* * * *

I HEREBY CERTIFY that the foregoing Resolution No. ____ was duly and regularly adopted and passed by the Board of the Montara Water and Sanitary District, San Mateo County, California, at a meeting thereof held on the 3rd day of May, 2018 by the following vote:

AYES, Directors:

NOES, Directors:

ABSENT, Directors:

_____

Secretary, Montara Water and Sanitary District

R E S O L U T I O N N O. ____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING CONTRACT DOCUMENTS, INCLUDING DESIGN, PLANS AND SPECIFICATIONS, FOR AIRPORT WELL 3 REHABILITATION AND TREATMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING EXEMPTION OF THE PROJECT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND AUTHORIZING AND DIRECTING FILING NOTICE OF EXEMPTION

WHEREAS, contract documents for the Airport Well 3 Rehabilitation and Treatment Project ("Project") have been presented to and reviewed by this Board; and

WHEREAS, the Project consists of the replacement or reconstruction of existing facilities and is thereby categorically exempt from the requirements of the California Environmental Quality Act (Pub. Res. C. §21000 et seq.; 14 CCR §15302); and

WHEREAS, this Board desires to proceed with the Project;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE MONTARA WATER AND SANITARY DISTRICT, A PUBLIC AGENCY IN THE COUNTY OF SAN MATEO, CALIFORNIA, AS FOLLOWS:

1. Those certain contract documents entitled, "Montara Water and Sanitary District – Airport Well 3 (AW3) Rehabilitation and Treatment," (dated May 2018), including, without limitation, the design, plans and specifications, a copy of which documents is on file in the District Administrative Offices to which reference is hereby made for the full particulars thereof, are hereby approved and the General Manager is hereby authorized and directed to advertise for bids for the Project.

2. This Board hereby determines that the Project is categorically exempt from the requirements of the California Environmental Quality Act ("CEQA;" Pub. Res. C. §21000 et seq.; 14 CCR §15302) because it consists of replacement or reconstruction of existing facilities. The Project is hereby approved for purposes of CEQA and the General Manager hereby authorized and directed to file a

R E S O L U T I O N N O. ____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING CONTRACT DOCUMENTS, INCLUDING DESIGN, PLANS AND SPECIFICATIONS, FOR AIRPORT WELL 3 REHABILITATION AND TREATMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING EXEMPTION OF THE PROJECT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND AUTHORIZING AND DIRECTING FILING NOTICE OF EXEMPTION

Notice of Exemption for the Project with the County Clerk, County of San Mateo, California (14 CCR §15062).

Dated: _____ _____

President, Montara Water and Sanitary District

COUNTERSIGNED:

Dated: _____ _____

Secretary, Montara Water and Sanitary District

* * * *

I HEREBY CERTIFY that the foregoing Resolution No. ____ was duly and regularly adopted and passed by the Board of the Montara Water and Sanitary District, San Mateo County, California, at a meeting thereof held on the 3rd day of May, 2018 by the following vote:

AYES, Directors:

NOES, Directors:

ABSENT, Directors:

_____

R E S O L U T I O N N O. ____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING CONTRACT DOCUMENTS, INCLUDING DESIGN, PLANS AND SPECIFICATIONS, FOR AIRPORT WELL 3 REHABILITATION AND TREATMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING EXEMPTION OF THE PROJECT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND AUTHORIZING AND DIRECTING FILING NOTICE OF EXEMPTION

Secretary, Montara Water and Sanitary District

R E S O L U T I O N N O. ____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING AND AUTHORIZING WAIVER OF COMPETITIVE BIDDING FOR AIRPORT WELL 3 CONTROLLER UPGRADE PROJECT
(Airport Well 3 Rehabilitation and Treatment Project)

WHEREAS, concurrently with adoption hereof this Board has approved contract documents and authorized and directed competitive bidding for the Airport Well 3 Rehabilitation and Treatment Project ("Project"); and

WHEREAS, the Project includes upgrading existing equipment and software features that provide integrated operational control of District's wells including the Supervisory Control and Data Acquisition (SCADA) system ("Controls Upgrade"); and

WHEREAS, the Controls Upgrade consists of providing specialized equipment and work that must conform to, and be compatible with, existing equipment and software; and

WHEREAS, competitive bidding for the Controls Upgrade would not provide the aforesaid conformance and compatibility; and

WHEREAS, this Board finds that the below-referenced proposal by Calcon Systems for the Controls Upgrade provides said conformance and compatibility;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE MONTARA WATER AND SANITARY DISTRICT, A PUBLIC AGENCY IN THE COUNTY OF SAN MATEO, CALIFORNIA, AS FOLLOWS:

1. The above recitals are hereby incorporated herein as findings of fact.

2. This Board hereby determines that strict compliance with competitive bidding requirements for the Controls Upgrade would not serve the public interest because it requires work and equipment of a unique nature that supplements and must be compatible with existing equipment and is available from a single source only.

3. Competitive bidding for the Controls Upgrade is hereby waived.

R E S O L U T I O N N O. ____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING AND AUTHORIZING WAIVER OF COMPETITIVE BIDDING FOR AIRPORT WELL 3 CONTROLLER UPGRADE PROJECT
(Airport Well 3 Rehabilitation and Treatment Project)

4. That certain proposal to perform the Controls Upgrade set forth in letter dated November 16, 2017 to the District from Calcon Systems, a copy of which is on file in the District's Administrative Offices, to which reference is hereby made for the full particulars thereof, is hereby approved and the District's General Manager is hereby authorized and directed to accept said proposal and execute such documents to accomplish the purpose thereof in form approved by the District's General Counsel .

Dated: _____ _____

President, Montara Water and Sanitary District

COUNTERSIGNED:

Dated: _____ _____

Secretary, Montara Water and Sanitary District

* * * *

I HEREBY CERTIFY that the foregoing Resolution No. ____ was duly and regularly adopted and passed by the Board of the Montara Water and Sanitary District, San Mateo County, California, at a meeting thereof held on the 3rd day of May, 2018 by the following vote:

AYES, Directors:

NOES, Directors:

ABSENT, Directors:

_____

Secretary, Montara Water and Sanitary District

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **May 3, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Review and Possible Action Concerning Adoption of Policy for Acquiring Personal Services.

A Policy review prompted by last year's Grand Jury Report about Independent Special Sewer District's revealed that MWSD is in need to establish a Policy for Acquiring Personal Services.

While most construction related contracts fall by law under public bidding requirements, contracts for professional services have been exempt. In the past all contracts over $15,000 were approved by the MWSD Board of Directors.

Legal Counsel drafted a Resolution that establishes the requirement for all personal service contracts exceeding $15,000 to be formally approved by this Board.

RECOMMENDATION:

Adopt Resolution, No.___, Resolution of the Montara Water and Sanitary District Approving and Adopting Policy for Acquiring Personal Services.

Attachment

RESOLUTION NO. _____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING AND ADOPTING POLICY FOR ACQUIRING PERSONAL SERVICES

WHEREAS, the Montara Water and Sanitary District from time-to-time requires personal services, including expert personal services of an engineering, appraisal, right-of-way acquisition, financial, accountancy, legal or similar nature; and

WHEREAS, the acquisition of personal services requires the exercise of judgment and consideration of factors not amenable to competitive bidding; and

WHEREAS, this Board desires to adopt a policy for the solicitation of proposals for the performance of personal services, including expert consulting services;

NOW THEREFORE, be it resolved by the Board of the Montara Water and Sanitary District, a public agency in the County of San Mateo, California, as follows:

1. Agreements for the performance of personal services shall not be subject to the competitive bidding requirements applicable to District construction contracts under the Public Contract Code (Pub. C. C. §20801 et seq.) or, to the extent required or implied, under the Montara Water and Sanitary District Code.

2. The following policy and procedure pertaining to the acquisition of personal services is hereby approved and adopted:

a. Personal services, the estimated cost of which exceeds Fifteen Thousand and No One-Hundredths Dollars ($15,000.00) shall be performed under written contract approved as to form by the District legal counsel.

b. The District General Manager shall establish a uniform procedure for solicitation of proposals for personal services, the estimated cost of which exceeds Fifteen Thousand and No One-Hundredths Dollars ($15,000.00). The procedure shall include, among such other matters as the General Manager shall determine, the requirement that the responding person set forth his or her experience relevant to the services to be provided, a statement of qualifications,

an explanation of the scope of work to be performed and the estimated total cost of such services to the extent such cost is reasonably calculable..

c. The District Manager shall submit his or her recommendation to the District Board for acceptance of a proposal for personal services obtained in accordance with Subparagraph b. The Board's determination to accept or reject a proposal shall be based on an evaluation of qualifications and not solely on cost.

_____

President, Montara Water and Sanitary District

COUNTERSIGNED:

_____

Secretary, Montara Water and Sanitary District

* * * *

I HEREBY CERTIFY that the foregoing Resolution No._____ was duly and regularly adopted and passed by the Board of the Montara Water and Sanitary District, County of San Mateo, California, at a meeting thereof held on the 3rd day of May, 2018, by the following vote:

AYES, Directors:

NOES, Directors:

ABSENT, Directors:

_____

Secretary, Montara Water and Sanitary District

MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **May 3, 2018**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: **Review and Possible Action Concerning Cancellation of Next Regular Scheduled Meetings, May 17, and June 7, 2018 – Consideration of Special Meeting May 31, 2018.**

At this time District staff anticipates no urgent items for the second meeting in May. If the need to hold the meeting arises staff will notify Directors and post notices in advance. Directors indicated their unavailability to attend the June 7 meeting. It was suggested to cancel the first meeting in June and in lieu hold a special meeting on May 31, 2018.

RECOMMENDATION:

Cancel the regular scheduled meetings, May 17, and June 7, 2018. Hold a Special Meeting on May 31.