

Livermore-Amador Valley Water Management Agency

REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

Wednesday, February 16, 2022, 6:00 p.m.

Due to State of Emergency related to Covid-19 and the need to maintain social distancing, this meeting will be conducted via teleconference.

Meeting participants and the public may participate through computer video and audio by clicking on the following link:

https://us02web.zoom.us/j/86327092058

We recommend using your full name to log in for the meeting for ease of identification and recordkeeping purposes.

Meeting ID: 863 2709 2058

One tap mobile if using audio only from a telephone and not a computer +1 669 900 9128 - 86327092058# US (San Jose)

See below for additional info on participation procedures.

- 1. Call to Order
- 2. Pledge of Allegiance
- 3. Roll Call
- 4. Order of Agenda/Acknowledgement of Posting

(The agenda may be re-ordered by motion of the Board. The agenda has been posted virtually on the Agency's website and, to the extent possible under the circumstances, physically in the display case outside the DSRSD Building, Pleasanton City Hall and Livermore City Hall at least 72 hours prior to a regular meeting and 24 hours prior to a special meeting.)

5. Public Comment

(See text in box below for information on how to observe and submit public comments.)

6. Consent Calendar

(All items on the Consent Calendar will be considered together by one or more action(s) of the Board unless a Board member pulls an item.)

Action Pages 4 – 8

6.a. Board Meeting Minutes for the November 17, 2021 meeting

(The Board will consider approving the minutes from the November 17, 2021 Board meeting.)

Resolution

7. Consider Adopting a Resolution Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the Livermore-Amador Valley Water Management Agency Pursuant to Brown Act Provisions

Pages 9 - 14

(The Board will consider how the State of Emergency impacts the ability of the LAVWMA Board and its legislative bodies to meet safely in person due to COVID-19, the requirements by local health authorities to maintain social distancing and/or the imminent health and safety risks of meeting in person, and the limitations of the meeting spaces available to LAVWMA, and consider whether to adopt a resolution to continue remote meetings for the next 30 days in compliance with AB 361 to better ensure the health and safety of the public.)

Information Pages 15 – 20

8. Financial Reporting for the Fiscal Year Ending June 30, 2022

(The Board will review the Financial Reports for the Fiscal Year ending June 30, 2022.)

Information Pages 22 – 44

9. LAVWMA Quarterly Report of Operations, 2nd Quarter, FY2021-2022

(The Board will review the Quarterly Report of Operations, 2nd Quarter, FY2021-2022.)

Information

10. Project Status Reports - Motor Control Center Replacement Project, Purchase of Three Vertical Turbine Pumps, and the San Leandro Sample

Station Improvements Project

Pages 45-46

(The Board will receive status reports on projects at the Export Pump Station and the San Leandro Sample Station.)

Action

11. Amendment No. 1 to Agreement for Consultant Services with HydroScience for the Design of the San Leandro Sample Station Improvements Project

Pages 47 – 59

(The Board will consider an amendment to the agreement with HydroScience for the design of the San Leandro Sample Station Improvements Project.)

Information

12. Proposed South Livermore Sewer Expansion Project into Unincorporated

Pages 60 - 70

(The Board will review a proposed Sewer Expansion Project into unincorporated areas in Livermore and determine if there are concerns or questions that should be addressed prior to a formal request to approve the project pursuant to the Joint Powers Agreement and Resolution No. 17-01.)

Information

13. Update and Response to Various Legal and Legislative Issues

Pages 71 – 93

(The Board will receive a report regarding proposed legislation and legal developments affecting LAVWMA and its member agencies.)

Information

14. General Manager's Report

Pages 94 - 101

(The Board will review the General Manager's Report regarding the operations and maintenance of the Agency and its facilities.)

Information 15. Matters From/For Board Members

(Board members may make brief announcements or reports on his or her own activities, pose questions for clarification, and/or request that items be placed on a future agenda. Except as authorized by law, no other discussion or action may be taken.)

- 16. Next Regular Board Meeting, Wednesday, May 18, 2022, 6:00 p.m.
- 17. Adjournment

IMPORANT NOTICE REGARDING COVID-19 AND TELECONFERENCED MEETINGS:

Due to the State of Emergency declared by the Governor and the recommendation by the County Public Health Officer to maintain social distancing, to minimize the spread of the coronavirus, please note the following changes to LAVWMA's ordinary meeting procedures:

- LAVWMA's facilities are not open to the public during this emergency.
- The meeting will be conducted via teleconference.
- All members of the public seeking to observe and/or to address the Board may participate in the meeting telephonically in the manner described below.

HOW TO PARTICIPATE IN THE MEETING:

For both audio and video through a computer, click on the following link: https://us02web.zoom.us/j/86327092058 Meeting ID: 863 2709 2058

For audio only via telephone, dial 1 669 900 9128 then enter the following code 86327092058#

NOTE: This is a public meeting that can be heard live by any member of the public. It may be recorded to facilitate taking meeting minutes.

HOW TO SUBMIT PUBLIC COMMENTS:

Written / Read Aloud: Please email your comments to info@lavwma.com, write "Public Comment" in the subject line. In the body of the email, include the agenda item number and title, as well as your comments. If you would like your comment to be read aloud at the meeting (not to exceed three (3) minutes at staff's cadence), prominently write "Read Aloud at Meeting" at the top of the email. All comments received before 12:00 PM the day of the meeting will be included as an agenda supplement on LAVWMA's website under the relevant meeting date and provided to the Directors at the meeting. Comments received after this time will be treated as concurrent comments.

Live Comments: During the meeting, the Board President or designee will announce the opportunity to make public comments. Members of the public may submit a live remote public comment via Zoom. Speakers will be asked to provide their name and city of residence, although providing this is not required for participation. Each speaker will be afforded up to 3 minutes to speak. Speakers will be muted until their opportunity to provide public comment. When the Board President opens a public comment period on an item on which you would like to comment, please use the "raise hand" feature (or press *9 if connecting via telephone) which will alert staff that you have a comment to provide

ACCESSIBILITY INFORMATION:

Board Meetings are accessible to people with disabilities and others who need assistance. Individuals who need special assistance or a disability-related modification or accommodation (including auxiliary aids or services) to observe and/or participate in this meeting and access meeting-related materials should contact Chuck Weir, General Manager, as soon as possible but at least 72 hours before the meeting at (925)-875-2202 or info@lavwma.com. Advanced notification will enable LAVWMA to swiftly resolve such requests to ensure accessibility.

PUBLIC RECORDS:

Public records that relate to any item on the open session agenda for a meeting are available for public inspection. Those records that are distributed after the agenda posting deadline for the meeting are available for public inspection at the same time they are distributed to all or a majority of the members of the Board. The Board has designated LAVWMA's website located at http://lavwma.com/agency_meetings.php as the place for making those public records available for inspection. The documents may also be obtained by contacting the General Manager.

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LAVWMA

Livermore-Amador Valley Water Management Agency

DRAFT

Minutes

Regular Meeting of Board of Directors Wednesday, November 17, 2021

Pursuant to AB 361, this was a web meeting available to participants and the public through the following link: https://us02web.zoom.us/j/85151664279
6:00 p.m.

1. Call to Order

Chair Ann Marie Johnson called the meeting to order at 6:01 p.m.

2. Pledge of Allegiance

The Pledge of Allegiance was recited.

3. Roll Call

Board Members Present: Chair Ann Marie Johnson; Vice Chair Julie Testa; and Directors Valerie Arkin, Gina Bonanno, Bob Carling, and Arun Goel

Board Members Absent: None

Staff Present: General Counsel Alexandra Barnhill, Treasurer Carol Atwood, DSRSD Wastewater Treatment Plant Operations Superintendent Virgil Sevilla, and General Manager Chuck Weir

Staff Absent: None

Others Present: David Alvey, Maze & Associates

4. Order of Agenda/Acknowledgement of Posting

There were no changes to the order of the agenda.

5. Comments from the Public

There were no comments from the public.

6. Consent Calendar

a. Minutes of the September 29, 2021 LAVWMA Board Meetings

Director Carling motioned, seconded by Director Arkin, to approve Consent Calendar Item No. 6.a.

There were no comments from the public. The Motion passed unanimously (6-0) by a roll call vote.

7. Consider Adopting a Resolution Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the Livermore-Amador Valley Water Management Agency Pursuant to Brown Act Provisions

General Counsel Barnhill described this issue, including the expiration of the Governor's Executive Order that temporarily allowed remote meetings, the recent passage of AB 361 allowing public agencies to continue to meet remotely provided that certain findings (describing the health and safety reasons justifying remote participation) can be made, and an order from the Contra Costa County Public Health Department recommending that public meetings be held remotely to reduce the spread of COVID-19. The end result is that, so long as the findings can continue to be made, remote meetings will be allowed until January 1, 2024, when AB 361 will sunset. A resolution similar to the one proposed making the necessary findings will need to be approved at each regular meeting and some minor changes in the procedures for accepting public comments will be required.

Director Bonanno motioned, seconded by Director Goel, to approve Resolution No. 21-09 Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the Livermore-Amador Valley Water Management Agency Pursuant to Brown Act Provisions.

There were no comments from the public. The Motion passed unanimously (6-0) by a roll call vote.

8. Financial Reporting for the Fiscal Year Ending June 30, 2021

Treasurer Atwood provide a summary of the financial reports and noted two items. The first item is that there will be a credit from PG&E for over \$89,000 due to a billing error. The second item is that EBDA is now invoicing only twice per year such that the expenses for EBDA are higher than last year but will balance out by the end of the year. Director Bonanno asked about the PG&E refund. General Manager Weir explained that we reviewed the bills and noted that PG&E had reverted back to an old rate structure for four months on Feeder B. He called the local representative and they agreed to look into the matter and correct as needed. The result was the credit noted by Treasurer Atwood. This was an information item only requiring no action by the Board.

9. Acceptance of Audit Report for Fiscal Year Ending June 30, 2021

Treasurer Atwood introduced David Alvey, Audit Partner, Maze & Associates. His firm conducted the audit of LAVWMA's finances for FYE21. He briefly discussed the process used and noted that this was a clean audit opinion. Mr. Alvey also discussed the Memorandum on Internal Control and Required Communications (MOIC) and noted that no issues were identified by their audit. He complimented Treasurer Atwood and her staff for their efforts to properly manage LAVWMA's finances.

Director Goel motioned, seconded by Director Testa, to accept the Audit Report for the Fiscal Year Ending June 30, 2021.

There were no comments from the public. The Motion passed unanimously (6-0) by a roll call vote.

10. LAVWMA Quarterly Report of Operations, 1st Quarter, FY2021-2022

General Manager Weir provided an overview of the report and noted that charts for electricity use and expenses do not yet reflect the \$89,000 credit from PG&E. He stated that the next quarterly report will reflect that change. He thanked Virgil Sevilla and his staff for their efforts to operate the pump station only during off peak periods to avoid having to pay for demand and power charges during partial peak and peak periods.

11. Project Status Reports – Motor Control Center Replacement Project, Purchase of Three Vertical Turbine Pumps, and the San Leandro Sample Station Improvements Project

General Manager Weir discussed the status of the Motor Control Center (MCC) project and noted that it was nearing completion. The second MCC has not been installed and is undergoing testing now to ensure that all the controls operate properly. He also discussed the change orders that have been approved that total approximately \$39,000 or less than 2% of the contract price. He indicated that the project should be completed in early December.

General Manager Weir then discussed the status of negotiations with Trillium Pumps USA for the purchase of three vertical turbine pumps. He thanked General Counsel Barnhill and her colleague Christina Lawrence for their efforts in working with counsel for Trillium to reach an agreement that is acceptable to both parties. General Counsel Barnhill discussed their efforts with Trillium and that the process had been professional and cordial. Negotiations have settled on liquidated damages at \$2,000 per day with a cap of 25% of the contract price. The original contract had \$500 per day with no limit. In addition, LAVWMA has agreed on the possibility of a sliding incentive from 5-25% of the contract for early delivery and acceptance of the pumps. LAVWMA had originally offered a delivery date of 275 days. Trillium has requested 203 days for delivery after approval of the submittals. In addition Trillium has agreed to a warranty of eighteen months instead of twelve provided that LAVWMA installs the pumps within six months of delivery. The agreement should be fully executed before the end of November. Director Goel thanked staff for the successful conclusion to the negotiations and expressed his support for the sliding scale for early delivery. He also noted that the agreement could become a template for other agreements in the future. Director Arkin asked about negotiations with Peerless Pumps. General Manager Weir stated that no negotiations took place with Peerless since the process with Trillium was proceeding well. Director Carling also supported the idea of using the agreement as a template.

Lastly General Manager Weir discussed the San Leandro Sample Station (SLSS) project and indicated that a 30% design memorandum has been received. Due to findings from site visits and recommendations from DSRSD staff the estimated cost for the project has increased by approximately 40%. Since the project will extend into the next fiscal year there is no need to modify this year's budget. Contractor bids for the project will be received in time to determine the project cost for the FYE23 budget cycle.

This was an information item only requiring no action by the Board.

12. Update and Response to Various Legal and Legislative Issues

General Manager Weir provide an overview of the November updates from CASA and BACWA. He noted that the blanked permit amendment for chlorine residual has been approved by the Regional Board. When it takes effect dischargers to San Francisco Bay will be allowed to have some chlorine residual in their effluents, which will reduce costs for sodium bisulfate which is used for dechlorination. This applies to EBDA which will also save LAVWMA its share of dechlorination costs.

General Counsel Barnhill discussed SB 323 which provides for a 120-day statute of limitations for protests related to fee increases subject to Prop 218. She also discussed the Attorney General opinion related to Board members of a JPA and how they are required to act in the best interests of the JPA and not necessarily act as directed by their own agency and that receiving direction from the member agency can potentially create due process violations in certain contexts. She also noted that this generally does not apply to LAVWMA, as it does not have the opportunity to act as an adjudicatory decisionmaker, except in the case of out of area service agreements. Chair Johnson asked if the recent refunding process would have applied. Ms. Barnhill indicated that it is primarily related to property and employment issues.

This was an information item only requiring no action by the Board.

13. General Manager's Report

General Manager Weir highlighted several areas of his report, including asset management, records management, and succession planning. He indicated that a request for qualifications/proposal for a new General Manager would be available approximately one year in advance of his retirement. Director Bonanno asked about the Board's role in the selection process. General Counsel Barnhill stated that the last time, the Board reviewed the proposals, developed a short list, conducted the interviews, and made the selection. This was an information item only requiring no action by the Board.

14. Matters From/For Board Members

There were no matters from the Board.

15. Next Regular Board Meeting, Wednesday, February 16, 2022 at 6:00 p.m.

There was discussion concerning an in person or Zoom meeting in February. The official location is currently City of Pleasanton Council Chambers. Board members generally felt that remote meetings are preferred to be more efficient and cut down on travel time. General Counsel Barnhill also stated that the ability to continue to find a public health and safety need to meet remotely could depend on orders from the Governor, or the cities, counties or federal government.

Chair Johnson motioned, seconded by Director Testa, to accept have the February 16, 2022 meeting via Zoom.

There were no comments from the public. The Motion passed unanimously (6-0) by a roll call vote.

16. Adjournment
There being no further action, Chair Johnson adjourned the meeting at 6:55 p.m.
Minutes Approved by the Board
Charles V. Weir
General Manager

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Agenda Explanation
Livermore-Amador Valley
Water Management Agency
Board of Directors
February 16, 2022

ITEM NO. <u>7</u> CONSIDER ADOPTING A RESOLUTION AUTHORIZING CONTINUED REMOTE TELECONFERENCE MEETINGS OF THE LEGISLATIVE BODIES OF THE LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY PURSUANT TO BROWN ACT PROVISIONS

Action Requested

Approve Resolution No. 22-01 Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the Livermore-Amador Valley Water Management Agency Pursuant to Brown Act Provisions.

Background

On March 4, 2020, Governor Newsom declared a State of Emergency to make additional resources available, formalize emergency actions already underway across multiple State agencies and departments, and help the State prepare for a broader spread of COVID-19.

On March 17, 2020, the Governor issued Executive Order N-29-20 which authorized meetings of local legislative bodies to be held by teleconference as long as specified notice and comment provisions were followed. Given the state of emergency and authority to meet remotely, on April 3, 2020 the Board President issued a declaration altering the regular meeting location to be held via teleconference only. The Board ratified this declaration at its regular meeting on May 20, 2020. For the past year and a half, LAVWMA has been meeting remotely via Zoom. Meeting remotely has allowed LAVWMA to ensure the public's continued access to government meetings while also ensuring the public's safety.

On June 11, 2021, Governor Newsom issued Executive Order N-08-21, which rescinded his prior Executive Order N-29-20 and set a date of October 1, 2021 for agencies to transition back to public meetings held in full compliance with the Brown Act. However, the Delta variant has emerged, causing a spike in cases throughout the State. As a result, the Alameda and Contra Costa County Public Health Departments have issued a Health Order requiring masks indoors in public places, regardless of vaccination status.

On September 16, 2021, the Governor approved AB 361, which allowed local legislative bodies to continue to meet remotely after October 1 under certain circumstances. The Board adopted Resolution No. 21-08 finding that a proclaimed state of emergency existed due to coronavirus and unanimously voted that as a result of that emergency, meeting in person would present imminent risks to the health and safety of attendees. In order to continue to meet remotely, the Board must reevaluate and adopt new findings every 30 days.

Agenda Explanation
Livermore-Amador Valley
Water Management Agency
Board of Directors
February 16, 2022

Discussion

Under AB 361, if the state of emergency remains active for more than 30 days, a local agency must make the following findings by majority vote every 30 days to continue using the bill's exemption to the Brown Act teleconferencing rules. The findings are that:

- The legislative body has reconsidered the circumstances of the emergency; and
- Either of the following circumstances exist: The state of emergency continues to directly impact the ability of members to meet safely in person, or State or local officials continue to impose or recommend social distancing measures.

Staff is recommending that Resolution No. 22-01 be adopted as these findings can be made. All the conditions identified in Resolution No. 21-09 remain unchanged. Specifically, LAVWMA meets the requirements to continue holding meetings remotely in order to ensure the health and safety of the public because:

- LAVWMA is still under a state of emergency as declared by the Governor.
- County Health Orders require that all unvaccinated individuals in indoor public spaces
 accessible to the public wear masks. Not all individuals can be vaccinated due to health status
 or age.
- County Public Health officers as well as state and federal officials have issued various health orders, recommendations, and updates designed to slow the spread of COVID-19, including strongly recommending social distancing and that public meetings continue to be held remotely to protect public health.¹
- LAVWMA cannot maintain social distancing requirements for the public, staff, and Directors in its limited meeting space.

LAVWMA staff is concerned about protecting the health and safety of attendees, particularly given that even fully vaccinated people have contracted the Delta variant, people may have and transmit the virus before knowing they are infected and/or if they are asymptomatic, meetings can last several hours, and LAVWMA meeting facilities are limited in space and jointly used by other agencies, with seats close together and limited air circulation.

For these reasons, if the pandemic continues, the Board will be asked to approve a resolution on every agenda making findings regarding the circumstances of the emergency and vote to continue using the law's exemptions. AB 361 sunsets on January 1, 2024.

¹ See, e.g. Contra Costa County Public Health Officer's "Recommendations for Safely Holding Public Meetings" which provides that online meetings are strongly recommended as those meetings present the lowest risk of transmission of SARS-CoV-2, the virus that causes COVID-19. Available online at https://cchealth.org/covid19/pdf/recommendations-for-safe-public-meetings.pdf

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

Holding meetings remotely does not compromise the level of transparency or engagement that the Brown Act was designed to ensure. Studies have shown that remote meetings maintain and/or enhance the transparency and accessibility of public agency meetings. The Little Hoover Commission has prepared a white paper which recommends that remote meetings be allowed on a permanent basis because of the evidence gathered showing that bringing meetings to the public, rather than the other way around, promotes public participation and engagement.²

Recommendation

Consider Adopting Resolution No. 22-01 Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the Livermore-Amador Valley Water Management Agency Pursuant to Brown Act Provisions

Attachments

Resolution No. 22-01 Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the Livermore-Amador Valley Water Management Agency Pursuant to Brown Act Provisions.

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² Available online at The Government of Tomorrow: Online Meetings https://lhc.ca.gov/sites/lhc.ca.gov/files/Reports/261/Report261.pdf

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY RESOLUTION NO. 22-01

A RESOLUTION OF THE LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY AUTHORIZING CONTINUED REMOTE TELECONFERENCE MEETINGS OF THE LEGISLATIVE BODIES OF THE LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY PURSUANT TO BROWN ACT PROVISIONS

WHEREAS, on March 4, 2020, the Governor of the State of California issued a Proclamation of a State of Emergency due to COVID-19. Such Proclamation remains and is in effect as of the date of this Resolution, as are the facts, circumstances, and emergency under which it was issued; and

WHEREAS, LAVWMA ordinarily holds its regular meetings on the third Wednesday in February, May, August, and November at 6 p.m. at the Pleasanton City Council Chambers, 200 Old Bernal Avenue, Pleasanton, California 94566; and

WHEREAS, the City of Pleasanton officially closed its public facilities as of March 20, 2020 due to the coronavirus pandemic, making the Council Chambers unavailable to the public; and

WHEREAS, on April 3, 2020 the Livermore-Amador Valley Water Management Agency ("Agency") Board President issued a Declaration altering the regular meeting location to be held via teleconference only pursuant to Executive Order N-29-20. The Board ratified this Declaration at its regular meeting on May 20, 2020; and

WHEREAS, the Health Officers of the County of Alameda and Contra Costa ("Health Officers") have issued various health orders and updates designed to slow the spread of COVID-19 (including variants thereof) such as vaccinations, quarantines, face covering requirements, and social distancing recommendations designed to protect public health; and

WHEREAS, on September 20, 2021, the Health Officer issued recommendations for safely holding public meetings, including strongly recommending teleconferencing meetings as those meetings present the lowest risk of transmission of SARS-CoV-2, the virus that causes COVID-19, and further recommended social distancing and face masking of all attendees; and

WHEREAS, as of November 10, 2021, 22.5% of Alameda County and 25% of Contra Costa County residents ages 5 and up remain unvaccinated or partially vaccinated. The Health Officers recommend social distancing for those who are not fully vaccinated and further recommend avoiding crowded places, close contact settings, and confined places with poor airflow; and

WHEREAS, COVID-19 continues to spread, the Delta variant (a highly-infectious COVID-19 strain) is prevalent in the Bay Area. COVID-19 poses imminent health and safety concerns. The risk of exposure to COVID-19 depends on the likelihood of coming into close physical contact with people who may be infected and through contact with contaminated surfaces and objects. The severity of the illness varies. Per the US Centers for Disease Control and Prevention about 14% of the cases are severe (meaning, they required hospitalization), with an infection that affects both lungs and has the potential to lead to severe medical complications (such as

respiratory failure, shock, or multiorgan dysfunction) that can cause death in some people. The number of cases of infections and deaths occurring locally can be determined by viewing the dashboards of the Health Officers; and

WHEREAS, on June 11, 2021, the Governor issued Executive Order N-08-21, which placed an end date of September 30, 2021 on such authority; and

WHEREAS, due the rise in COVID-19 cases, including due to the Delta variant, the Agency continues to be deeply concerned about protecting the health and safety of attendees, particularly given that even fully vaccinated people have contracted the Delta variant, people may contract and transmit the virus before knowing they are infected and/or if they are asymptomatic; meetings of the Agency can last several hours, and the Agency's meeting facilities are shared spaces with member agencies, limited in space with seats that are close together, and have restricted air flow; and

WHEREAS, the California State legislature adopted AB 361 as an urgency measure that was signed by the Governor on September 16, 2021. AB 361 amends the Brown Act to allow local governments to use teleconferencing and virtual meeting technology as long as there is a gubernatorial "proclaimed state of emergency" upon the local legislative body finding that State or local officials have imposed or recommended measures to promote social distancing or that meeting in person would present imminent risks to the health or safety of attendees; and

WHEREAS, the Board desires to continue holding public meetings of LAVWMA using teleconferencing and virtual meeting technology in order to avoid the imminent risk to the health and safety of attendees; and

WHEREAS, the Board found that conducting its meetings using virtual meeting technology allowed the equivalent, if not improved, access to the meetings for officials, staff, and the public based on the ease of use and flexibility of technology. This experience has been confirmed by the Little Hoover Commission, which evaluated the effectiveness of remote meetings statewide; and

WHEREAS, the Board held a duly noticed public meeting on September 29, 2021 and considered all pertinent oral and written information, exhibits, testimony, and comments received during the public review process, including, without limitation, information received at the public hearing, the oral report from staff, the written report from staff, draft of Resolution 21-08, and all other information on which each of the Directors has based their decision (collectively, "Remote Meeting Information"); and

WHEREAS, the Board found that a state of emergency remained active due to the coronavirus pandemic, which affects the ability of attendees to meet safely in person and adopted Resolution 21-08; and

WHEREAS, more than 30 days has passed since the adoption of that Resolution and the Board desires to make the findings necessary to continue to meet remotely in light of the fact that there remains a significant portion of the population that is not eligible for vaccination or booster shots and that even fully vaccinated people may contract and transmit the virus and it is not possible to socially distance within the Board meeting room.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of LAVWMA as follows:

Section 1. Recitals. The Board hereby finds and determines that the foregoing recitals are true and correct; the recitals are hereby incorporated by reference into each of the findings as though fully set forth therein. The recitals and the information below constitute findings in this matter, and together with the Remote Meeting Information, serve as an adequate and appropriate evidentiary basis for the findings and actions set forth herein.

Section 2. AB 361 Findings. The Board, on behalf of itself and its legislative bodies, hereby further finds the following: A state of emergency in California remains active due to the coronavirus pandemic, which continues to directly impact the ability of attendees to meet safely in person. Federal, state, and/or local officials have imposed and/or recommended measures to promote social distancing and use face coverings in indoor settings to help stop the spread of the virus. They have strongly recommended public agencies hold their meetings online because doing so presents the lowest risk of transmission of SARS-CoV-2, the virus that causes COVID-19. COVID-19 continues to pose an imminent risk to the health and safety of attendees to meet in person because it can be contracted and transmitted by people without symptoms and regardless of vaccination status and has the potential to lead to severe disease and death.

Section 4. Remote Meetings. Meetings of LAVWMA and its legislative bodies will continue to be conducted remotely using teleconferencing for the next 30 days in compliance with AB 361.

Section 5. **CEQA.** This action does not constitute a "project" within the meaning of Public Resources Code Section 21065, 14 Cal Code Reg. Section 15060(c)(2), 15060(c)(3), and/or 15378 because it has no potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. In addition, this action is categorically exempt pursuant to Section 15061(b)(3), "Review for Exemptions" of the CEQA Guidelines because there is no possibility that it may have a significant effect on the environment, and no further environmental review is required. No unusual circumstances exist and none of the exceptions under CEQA Guidelines Section 15300.2 apply. This determination reflects the Board's independent judgment and analysis.

DULY AND REGULARLY ADOPTED by the LAVWMA's Board of Directors this 16th day of February, 2022 by the following vote:

AYES: Directors Arkin, Bonanno, Carling, C NOES: None ABSENT: None	Goel, Vice Chair Testa, and Chair Johnson
Ann Marie Johnson, Chair	
ATTEST:	

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

ITEM NO. <u>8</u> FINANCIAL REPORTING FOR THE FISCAL YEAR ENDING JUNE 30, 2021

Action Requested

None at this time. This is an information item only.

To: LAVWMA Board of Directors

From: Carol Atwood, LAVWMA Treasurer

Subject: Financial Reporting for FYE 2022

Summary

Attached are the financial statements for the period July 1, 2021 through September 30, 2021.

Attachments

Schedule of Sub Fund Account Balance Sheets – Shows the assets and liabilities of LAVWMA in each of its funds.

Schedule of Sub Fund Account Activity – Shows the income and expense transactions for LAVWMA in each fund. Most of LAVWMA's activity will be in the Operations & Maintenance fund.

O&M Fund Budget vs. Actual – Shows the status of the budget to actual expenses for the O&M Fund for the period July 1, 2021 through September 30, 2021 and period July 1, 2020 through December 31, 2021.

Treasurer's Report – A report showing how LAVWMA's available cash is invested.

General Management Expenses Listing – All general LAVWMA invoices are approved by the LAVWMA GM and Treasurer prior to payment by DSRSD. Those invoices are summarized and are billed to LAVWMA on a monthly basis via the DSRSD bill to LAVWMA. This listing is supplemental information requested by the LAVWMA General Manager to show the vendor, description, and amount of each invoice in more detail.

Recommendation

None at this time. This is an information item only.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY SCHEDULE OF SUB FUND ACCOUNT BALANCE SHEETS July 2021 through December 2021

				Repair an			
	Operation & Maintenance	EBDA Capacity	2021 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total
<u>ASSETS</u>			51	-	<u>.</u>		
Cash and equivalents	\$ 219,509	\$ -	\$ 26,845	\$ (190,245)	\$ 12,070	\$ 8,974	\$ 77,153
Investments	492,079		30,479	14,752,142	432,551	1,618,286	17,325,537
Investments (LAIF FMV Adj)	3,391	545	12,470	(12,346)	(433)	(1,563)	1,518
Due from members	390,348	Œ		% =	-	-	390,348
Capital Assets, net of accumulated depreciation		2,727,275	(20)	98,366,761	45,360	3,322,450	104,461,846
Bond Issuance Cost	<u>—</u>		428,361				428,361
Total assets	1,105,328	2,727,275	498,155	112,916,311	489,548	4,948,147	122,684,764
LIABILITIES							
Accounts payable	381,776		8	262,546	=	÷	644,322
Due To Members	2,825	6 .5	5		1554	≅	2,825
Interest payable	=	Œ	949,693	% =	=	=	949,693
Bond issuance premium, net of amortization		P.2	10,490,675	7 <u>2</u>	=	=	10,490,675
Due in more than one year	<u></u>	n=	54,790,000	·-	<u></u>	=	54,790,000
Total liabilities	384,602		66,230,368	262,546	***************************************	<u> </u>	66,877,515
NET ASSETS							
Invested in capital assets, net of related debt	=	2,727,275	(65,280,675)	98,366,761	45,360	3,322,450	39,181,171
Unrestricted net assets	720,727		(451,539)	14,287,004	444,189	1,625,697	16,626,078
Total net assets	\$ 720,727	\$ 2,727,275	\$ (65,732,214)	\$ 112,653,765	\$ 489,549	\$ 4,948,147	\$ 55,807,249

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY SCHEDULE OF SUB FUND ACCOUNT ACTIVITY July 2021 through December 2021

			Repair and Replacement Reserve					
	Operation & Maintenance	EBDA Capacity	2021 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total	
OPERATING REVENUES Service charges - DSRSD Service charges - City of Pleasanton Service charges - City of Livermore Total operating revenues	\$ 556,871 661,933 586,435 1,805,240	\$	\$ 2,540,591 2,173,418 1,817,729 6,531,737	\$ 69,900 69,900 60,200 200,000	\$ - - -	\$ - - -	\$ 3,167,362 2,905,251 2,464,364 8,536,977	
OPERATING EXPENSES Power LAVWMA share of EBDA O&M - Fixed LAVWMA share of EBDA O&M - Variable Operations agreement Professional services Livermore sole use O&M Insurance	547,663 351,221 32,638 378,687 144,292 9,807 80,888	E	-	- - - - -		51 0 0 0	547,663 351,221 (1) 32,638 (1) 378,687 144,292 (1) 9,807 80,888 (1)	
Repairs and Maintenance Miscellaneous Total operating expenses Capital outlay Total operating expenses and capital outlay	34,574 188 1,579,956 - 1,579,956	-	6 6	1,717 1,717 1,947,889 1,949,606	48 48 48	175 175 175 175	34,574 (1) 2,134 1,581,903 1,947,889 3,529,792	
Operating income (loss)	225,283	=	6,531,731	(1,749,606)	(48)	(175)	5,007,185	
NON-OPERATING REVENUES (EXPENSES) Bond interest expense Interest income Total non-operating revenues (expenses)	731 731	- - -	2,611,413 37 2,611,450	10,404	286 286	1,045 1,045	2,611,413 12,503 2,623,916	
Changes in net assets	226,015		9,143,181	(1,739,202)	238	870	7,631,101	
NET ASSETS Net assets, beginning of period	494,712	2,727,275	(74,875,395)	114,392,967	489,311	4,947,277	48,176,148	
Net assets, end of period	\$ 720,727	\$ 2,727,275	\$ (65,732,214)	\$ 112,653,765	\$ 489,549	\$ 4,948,147	\$ 55,807,249	

⁽¹⁾ Total of the noted expenses is \$643,612. Details see General Management Expenses Listing.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

Operations and Maintenance - Budget vs Actual July - December, 2020 & July - December, 2021

	FYE 2021 Budget	FYE 2021 Actual	١	/ariance	F	FYE 2022 Budget	FYE 2022 Actual		Variance
OPERATING REVENUES Service charges - DSRSD Service charges - City of Pleasanton Service charges - City of Livermore	\$ 1,022,075 1,230,725 1,092,599	\$ 1,098,471 1,053,559 976,059	\$	76,396 (177,165) (116,542)	\$	1,113,743 1,323,867 1,172,870	\$ 556,871 661,933 586,435		\$ (556,870) (661,932) (586,436)
Total operating revenues	3,345,400	3,128,088		(217,311)		3,610,480	1,805,240		(1,805,238)
OPERATING EXPENSES									
Power	1,250,000	582,928		(667,072)		1,250,000	547,663		(702, 337)
LAVWMA share of EBDA O&M - Fixed	523,000	321,112		(201,888)		689,052	351,221	(1)	(337,831)
LAVWMA share of EBDA O&M - Variable	141,000	56,491		(84,509)		150,828	32,638	(1)	(118, 190)
Operations agreement	938,000	599,166		(338,834)		1,011,500	378,687		(632,813)
Professional services	405,500	186,432		(219,068)		380,100	144,292	(1)	(235,808)
Livermore sole use O&M	25,000	18,610		(6,390)		25,000	9,807		(15, 193)
Insurance	55,508	75,508		20,000		84,000	80,888	(1)	(3,113)
Permits	7,392	-		(7,392)		20,000	-		(20,000)
Repairs and Maintenance	-	45,949		45,949		-	34,574	(1)	34,574
Miscellaneous	-	233		233		-	188		188
Total operating expenses Capital outlay	3,345,400	1,886,429	(1,458,971) -		3,610,480	1,579,956		(2,030,524)
Total operating expenses and capital outlay	3,345,400	1,886,429	(1,458,971)		3,610,480	1,579,956		(2,030,524)
Operating income (loss)	ů,	1,241,660		1,241,660		4	225,283		225,285
NON-OPERATING REVENUES (EXPENSES) Interest income		3,098		3,098			731		731
Total non-operating revenues (expenses)	+	3,098		3,098		-	731		731
Net Income	\$ X+3	\$ 1,244,757	\$	1,244,758	\$	-	\$ 226,015		\$ 226,017

⁽¹⁾ Total of the noted expenses is \$643,612. Details see General Management Expenses Listing.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

Treasurer's Report Portfolio Summary December 31, 2021

Investments	Par Value	Market Value	Book Value	% of Portfolio	Avg. Term	Avg. Days to Maturity	YTM
LAIF- Operating	\$ 17,325,537	\$ 17,325,537	\$ 17,325,537	100.00	1	1	0.23%
	\$ 17,325,537	\$ 17,325,537	\$ 17,325,537	100.00	-1		0.23%

Average Daily Balance Effective Rate of Return \$ 17,325,537 0.23%

I certify that this report reflects all Government Agency pooled investments and is in conformity with the investment policy of Livermore-Amador Valley Water Management Agency.

The investment program herein shown provides sufficient cash flow liquidity to meet the next six month's expenses.

Carol Atwood Atwood Date: 2022.02.09 07:44:14

Carol Atwood, Treasurer -08'00' Date

Livermore-Amador Valley Water Management Agency General Management Expenses Listing

July - December, 2021

Item	No	8
IICIII	INU.	O

Invoice Date	Vendor Name	Invoice#	ember, 2021 Description	Check#	Date Paid	Total Amount
6/3/2021	SDRMA	70396	MEMBER #7119 PROPERTY/LIABILITY PROGRAM 2021-22	108198	7/22/2021	\$80,887.50
7/1/2021	EAST BAY DISCHARGERS AUTHORITY	3259	O&M ASSESSMENT - JULY 1, 2021 - 1ST QTR	108362	8/12/2021	\$465,342.96
7/31/2021	JARVIS, FAY & GIBSON, LLP	15520	GENERAL COUNSEL SVCS - JULY 2020	108479	8/26/2021	\$6,681.50
8/2/2021	WEIR TECHNICAL SERVICES	LAVWMA_07-21	MANAGEMENT SERVICES - JULY 2021	108569	8/26/2021	\$13,575.75
8/18/2021	ARKIN, VALERIE	072121 meeting	REGULAR BOARD MTG ATTENDANCE - 07/21/21	108375	8/19/2021	\$50.00
8/18/2021	BONANNO, GINA	072121 meeting	REGULAR BOARD MTG ATTENDANCE - 07/21/21	108378	8/19/2021	\$50.00
8/18/2021	TESTA, JULIE	072121 meeting	REGULAR BOARD MTG ATTENDANCE - 07/21/21	108403	8/19/2021	\$50.00
8/31/2021	JARVIS, FAY & GIBSON, LLP	15620	GENERAL COUNSEL SVCS - AUGUST 2021	108839	9/30/2021	\$11,671.00
8/31/2021	MAZE & ASSOCIATES	42335	LAVWMA AUDIT SVCS - JUNE 2021 (WORK IN AUGUST 2021)	108778	9/22/2021	\$4,495.00
9/1/2021	WEIR TECHNICAL SERVICES	LAVWMA_08-21	MANAGEMENT SERVICES - AUGUST 2021	108752	9/22/2021	\$15,976.89
9/13/2021	CARLING, ROBERT	090821 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/08/21	108701	9/16/2021	\$50.00
9/13/2021	CARLING, ROBERT	081821 meeting	REGULAR BOARD MTG ATTENDANCE - 08/18/21	108701	9/16/2021	\$50.00
9/13/2021	TESTA, JULIE	090821 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/08/21	108729	9/16/2021	\$50.00
9/13/2021	TESTA, JULIE	081821 meeting	REGULAR BOARD MTG ATTENDANCE - 08/18/21	108729	9/16/2021	\$50.00
9/13/2021	ARKIN, VALERIE	090821 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/08/21	108693	9/16/2021	\$50.00
9/13/2021	ARKIN, VALERIE	081821 meeting	REGULAR BOARD MTG ATTENDANCE - 08/18/21	108693	9/16/2021	\$50.00
9/13/2021	BONANNO, GINA	090821 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/08/21	108698	9/16/2021	\$50.00
9/13/2021	BONANNO, GINA	081821 meeting	REGULAR BOARD MTG ATTENDANCE - 08/18/21	108698	9/16/2021	\$50.00
9/30/2021	JARVIS, FAY & GIBSON, LLP	15727	GENERAL COUNSEL SVCS - SEPTEMBER 2021	108992	10/21/2021	\$9,101.00
10/5/2021	WEIR TECHNICAL SERVICES	LAVWMA_09-21	MANAGEMENT SERVICES - SEPT. 2021	109055	10/28/2021	\$12,070.10
10/11/2021	TESTA, JULIE	092921 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/29/2021	108957	10/14/2021	\$50.00
10/11/2021	BONANNO, GINA	092921 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/29/2021	108935	10/14/2021	\$50.00
10/11/2021	CARLING, ROBERT	092921 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/29/2021	108936	10/14/2021	\$50.00
10/11/2021	ARKIN, VALERIE	092921 meeting	SPECIAL BOARD MTG ATTENDANCE - 09/29/2021	108932	10/14/2021	\$50.00
10/19/2021	EAST BAY DISCHARGERS AUTHORITY	3286	O&M ASSESSMENT - FINAL FY 2020/21	109873	1/27/2022	(\$46,910.21)
10/31/2021	JARVIS, FAY & GIBSON, LLP	15844	GENERAL COUNSEL SVCS - OCTOBER 2021	109282	11/18/2021	\$7,272.00
10/31/2021	MAZE & ASSOCIATES	42995	LAVWMA AUDIT SVCS - JUNE 2021 (WORK IN OCTOBER 2021)	109284	11/18/2021	\$899.00
11/2/2021	WEIR TECHNICAL SERVICES	LAVWMA_10-21	MANAGEMENT SERVICES - OCT. 2021	109244	11/18/2021	\$6,944.49
11/30/2021	JARVIS, FAY & GIBSON, LLP	15952	GENERAL COUNSEL SVCS - NOVEMBER 2021	109653	12/30/2021	\$18,351.00
12/3/2021	WEIR TECHNICAL SERVICES	LAVWMA_11-21	MANAGEMENT SERVICES - NOV. 2021	109622	12/16/2021	\$11,178.91
						\$618,286.89

Expenses from journal entry and payroll:

Postage DSRSD Board Members Admin Support Accounting

\$0.00 \$400.00 \$1,391.52 \$23,533.45 \$25,324.97

TOTAL: \$ 643,611.86

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

ITEM NO. $\underline{9}$ QUARTERLY REPORT OF OPERATIONS FOR 2nd QUARTER FY2021-2022

Action Requested

None at this time. This is an information item only.

Summary

LAVWMA's Quarterly Report of Operations for the 2nd Quarter, FY 2021-2022 is attached for the Board's review. These quarterly reports are prepared by DSRSD staff and summarize all LAVWMA operations and maintenance activity for each quarter. Jeff Carson, DSRSD Operations Manager, will be available to answer any questions from the Board. The report includes graphs showing Flows and Pumping Efficiency, Energy Consumption, Budget Variance, and Work Order History. Per the Board's request, the Executive Summary includes a section for Items of Interest. Total expenses are running at 73.2% of the year to date budget. Apart from storms in October and December, this season's rainfall has been below normal.

Recommendation

None at this time. This is an information item only.

Attachments

LAVWMA Quarterly Report of Operations, 2nd Quarter, FY2021-2022.

LAVWMA

QUARTERLY REPORT OF OPERATIONS

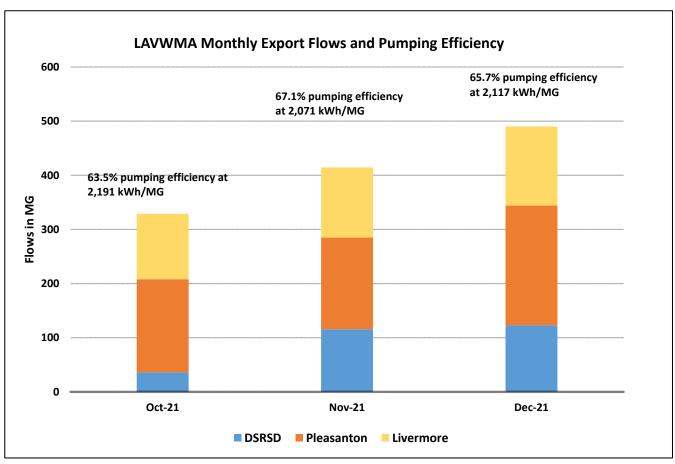
FY 2021-2022, 2nd Quarter

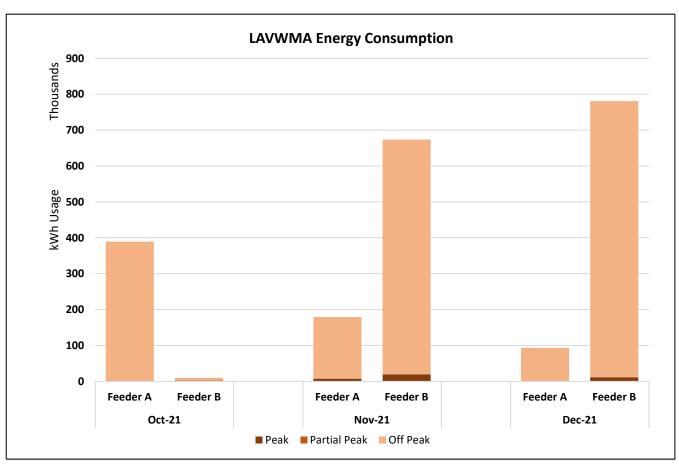


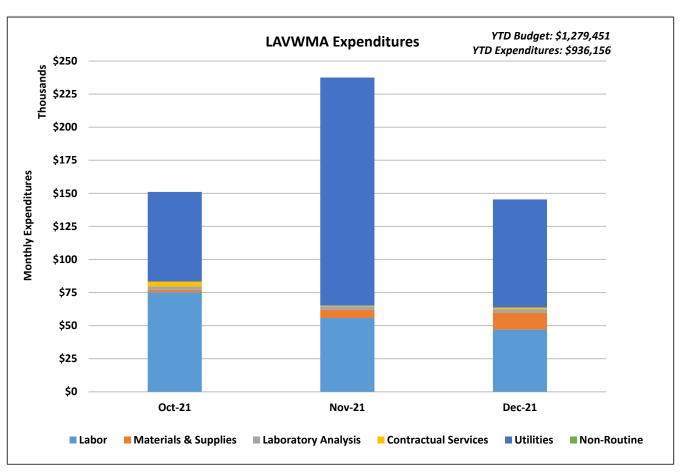
QUARTERLY REPORT OF OPERATIONS LAVWMA PUMPING AND CONVEYANCE SYSTEM

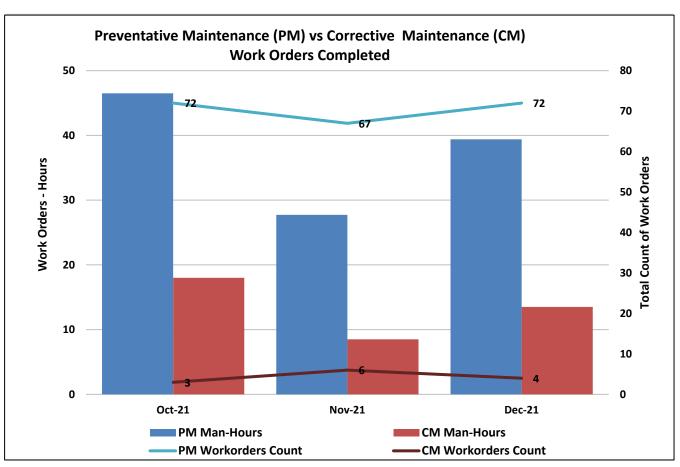
2nd Quarter FY 2021-2022: October to December 2021

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QUARTERLY REPORT OF OPERATIONS LAVWMA PUMPING AND CONVEYANCE SYSTEM 2nd Quarter FY 2021-2022: October to December 2022

1. EXECUTIVE SUMMARY

The Livermore-Amador Valley Water Management Agency (LAVWMA) pumping and effluent conveyance system operated normally during the second quarter of FY 2021-2022. During the quarter, a total of 1,233.19 million gallons of fully treated secondary effluent were pumped to San Francisco Bay via the East Bay Dischargers Authority (EBDA) outfall diffuser and San Leandro Sample Station (SLSS); the overall efficiency of the pumping system averaged 65%, with an average electrical cost of \$408 per million gallons, or \$133 per acre-foot.

Total year-to-date operations and maintenance (O&M) expense is \$936,156 or 36.6% of the O&M annual budget amount of \$2,558,901 and the overall cost of operation is \$572 per million gallons pumped or \$186 per acre-foot.

2. OPERATIONS

Of the 1,233.19 million gallons of effluent conveyed through the LAVWMA system, approximately 396 million gallons was from the City of Livermore, 563 million gallons from City of Pleasanton and 274 million gallons from DSRSD. Monthly export flow summary is shown on Table 4. Monthly reports sent to EBDA which detail daily export flows and monitoring analysis of the treated effluent during the quarter are shown on Table 9.

During the months of May 2020 through August 2020, PG&E inexplicably reverted to the old schedule for Feeder B. PG&E corrected this error and credited the account \$89,058.20 in October and November, which is reflected in the PG&E cost data shown in Table 1.

On November 3, staff conducted an annual San Lorenzo Creek Flapper gate wet weather discharge exercise in accordance with the NPDES permit. Approximately 75,000 gallons of fully treated dechlorinated secondary effluent was discharged into San Lorenzo Creek. The function and operation of the flapper gate, outfall equipment and the Supervisory Control and Data Acquisition (SCADA) system were tested and they performed as designed. Even though the system operated as designed, the design is not optimal and requires significant staff resources to function as designed. There is a capital project to redesign the San Leandro Sample Station to make operation more efficient. The effluent water quality data and the receiving water site observations indicated the fully treated effluent posed no actual or potential harm to the aquatic environment or applicable beneficial uses in and around San Lorenzo Creek.

3. MAINTENANCE

During the quarter, 114 hours were spent to complete 211 preventative maintenance work orders and 41 hours to complete 13 corrective maintenance work orders on LAVWMA equipment and systems.

The following are some noteworthy maintenance activities during the quarter:

Electrical:

- LAVWMA PS MCC Replacement construction support
- LAVWMA SLSS Rehab design support
- Scoped out replacement pump station gate actuators and acquired quotes for spares

Instrumentation and Controls:

- LAVWMA PS MCC Replacement construction support
- LAVWMA SLSS Rehab design support
- Continued planning and design to upgrade remote monitoring devices for all remote rectifier panels. The new system is to replace Samsara. The input/output (I/O) driver was configured and tested. Currently waiting for backordered gateway hardware to arrive
- Continued planning and design of a web interface to allow third party agencies to see LAVWMA PS data remotely. The new system is to replace Samsara. A kick-off meeting took place with the consultant who will be implementing the integration
- Started an in-house project to upgrade vibration sensors to bring signals in via Modbus,
 which is similar to the new RTD sensors that were installed during the MCC upgrade CIP
- Assisted with flapper gate test
 - Replaced a faulty line pressure instrument
 - Bypassed mechanical flow switches for Thiosulfate pumps
- Troubleshot pump station wet well level instruments
- Transferred program data to EBDA PLC to share data for pump station export flows

Mechanical:

The Smart Cover picked up a leak at the Greenview Drive air relief vault. Staff corrected
the issue before a spill developed. This is the first benefit observed from the SmartCover
technology. Additional Smart Covers have been ordered and will be installed at the most
vulnerable locations

4. BUDGET VARIANCE AND EXPENSES

Second quarter labor expenses totaled \$178,050 for 1,033 man-hours of effort, an average of 2.0 full time equivalents (FTEs). O&M expenses for the quarter including labor, supplies, laboratory analysis, contractual services, and utilities totaled \$533,985 for an average cost of \$433 per million gallons pumped or \$141 per acre-foot. The total expense for the Livermore sole use pipeline for the quarter was \$550.

Operation and maintenance (O&M) expenses and budget utilization details are shown on Tables 5, 6, 7, and 8.

5. ITEMS OF INTEREST

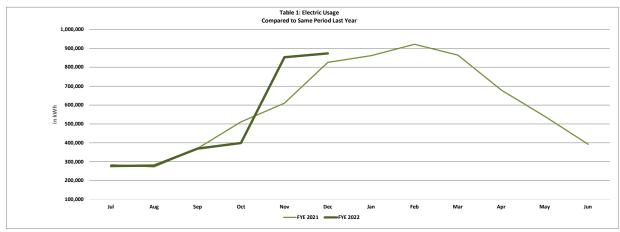
The atmospheric river on October 24-25 drenched the Bay Area and delivered much needed rain. Staff kept the LAVWMA facilities operational during the powerful storms in coordination with the City of Livermore and EBDA. EBDA requested that LAVWMA staff shut off pumps during the storms as part of EBDA's pilot wet weather coordination test, which may have contributed to the lower pumping efficiency observed in October 2021 (see LAVWMA Monthly Export Flows and Pumping Efficiency chart).

6. CAPITAL PROJECTS

As additional information, Table 11 provides a status summary of the capital projects that are primarily managed by the LAVWMA General Manager. The O&M budget and expenditures discussed in this quarterly report do not include capital projects.

TABLE 1 - Electric Usage, Efficiency and Costs

					PG&E Ser	vice Accounts:	Rate Sche	dule B20 startir	ng March 202	21					Total				
		А	cct # 848206192	3-1			Ac	ct # 844039525	9-5						Export		Pur	mping	
			Service A					Service B			Billing		Total		Flow ¹	Energy	(Cost	Efficiency
Month	kWh	Peak	Partial Peak	Off Peak	\$	kWh	Peak	Partial Peak	Off Peak	\$	Days	kWh	\$/kWh	\$	MG	kWh/MG	\$/MG	\$/AF	%
Jul-21	121,614	0	0	121,614	\$30,679	156,361	9,910	19,424	127,027	\$43,366	30	277,975	\$0.27	\$74,045	108	2,565	\$683	\$223	54.2%
Aug-21	121,695	0	52	121,643	\$26,843	158,567	10,283	22,241	126,043	\$43,175	32	280,262	\$0.25	\$70,019	105	2,667	\$666	\$217	52.1%
Sep-21	300,902	0	300	300,602	\$60,010	68,264	6,492	12,791	48,981	\$31,359	30	369,166	\$0.25	\$91,368	160	2,312	\$572	\$186	60.1%
Oct-21	389,192	0	0	389,192	\$67,279	9,593	1,768	828	6,997	\$8,793	29	398,785	\$0.19	\$76,072	182	2,191	\$418	\$136	63.5%
Nov-21	179,241	7,458	0	171,783	\$55,673	673,504	19,663	0	653,841	\$115,688	30	852,745	\$0.20	\$171,361	412	2,071	\$416	\$136	67.1%
Dec-21	93,222	0	0	93,222	\$36,104	780,566	11,465	0	769,101	\$125,342	31	873,788	\$0.18	\$161,446	413	2,117	\$391	\$127	65.7%
Jan-22																			
Feb-22																			
Mar-22																			
Apr-22 May-22																			
Jun-22																			
Quarter	220 552				ФE2 040	407.000				600 074	20	700 400	CO 40	£420.000	220	0.400	£400	6422	CE 40/
Average Total	220,552 661.655				\$53,019 \$159,056	487,888 1,463,663				\$83,274 \$249.823	30 90	708,439 2,125,318	\$0.19	\$136,293 \$408,879	336 1,007	2,126 6,378	\$408	\$133	65.4%
Minimum	93,222				\$36,104	9,593				\$8,793	29	398,785	\$0.18	\$76,072	1,007	2,071	\$391	\$127	63.5%
Maximum	389,192				\$67,279	780,566				\$125,342	31	873.788	\$0.10	\$171.361	413	2,191	\$418	\$136	67.1%
IVIAAIIIIUIII	309,192				φ07,27 <i>9</i>	700,300				\$120,042	31	673,700	φ0.20	φ171,301	413	2,191	φ410	φ130	07.176
YTD	200.070				£40.000	207.000				C4 007	20	500 707	#0.00	£407.005	220	0.004	# F0F	C474	CO F0/
Average	200,978				\$46,098	307,809				\$61,287	30	508,787	\$0.22	\$107,385	230	2,321	\$525	\$171	60.5%
Total Minimum	1,205,866 93,222				\$276,588 \$26,843	1,846,855 9,593				\$367,723 \$8,793	182 29	3,052,721 277,975	\$0.18	\$644,311 \$70,019	1,380 105	13,923 2,071	\$391	\$127	52.1%
Maximum	389,192				\$67,279	780,566				\$125,342	32	873,788	\$0.16	\$171,361	413	2,667	\$683	\$223	67.1%
iviaxiiiium	309,192				φ01,219	700,000				242,342 پ	32	013,108	φυ.∠/	φ1/1,301	413	2,007	φυου	\$ 223	07.170



NOTES:

- This Table 1 does not reflect what was the actual expenditures paid for the month and may not match what is in Table 8 Expenditures. The primary purpose of Table 1 is to show the electric usage and efficiency for the month it actually occured.
- 2) To calculate pumping efficiency, read dates, electric usage, and export flows are **matched to PG&E billing periods**: 9/15 10/13 for October, 10/14 11/12 for November, and 11/13 12/13 for December.
- 3) Pumping efficiency is based on continuous average flows and a TDH of 442.8 feet, including static lift of 408.8 feet and piping losses of 34 feet (per Charlie Joyce, B&C, 2/12/07).

TABLE 2 - Pump Run Time Hours

											TO	OTAL
	Pump	Pump	Pump									
	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	Run	Utilization
Month	Hours	Hours	%									
Jul-21	0	29	87	204	0	0	0	200	84	26	631	8.5%
Aug-21	0	220	81	1	91	62	0	29	81	219	783	10.5%
Sep-21	0	2	110	3	359	240	1	352	1	0	1,067	14.8%
Oct-21	0	184	47	161	333	245	163	359	192	0	1,685	22.7%
Nov-21	0	481	90	367	37	55	481	38	369	32	1,951	27.1%
Dec-21	0	522	97	551	0	0	551	113	546	0	2,380	32.0%
Jan-22											0	0.0%
Feb-22											0	0.0%
Mar-22											0	0.0%
Apr-22											0	0.0%
May-22											0	0.0%
Jun-22											0	0.0%
Quarter												
Average	0	396	78	359	123	100	398	170	369	11	2,006	27.2%
Total	0	1,187	235	1,078	370	301	1,195	511	1,107	32	6,017	
Minimum	0	184	47	161	0	0	163	38	192	0	1,685	22.7%
Maximum	0	522	97	551	333	245	551	359	546	32	2,380	32.0%
YTD												
Average	0	240	86	214	137	100	199	182	212	46	708	9.6%
Total	0	1,439	513	1,286	820	603	1,197	1,091	1,272	277	8,498	
Minimum	0	2	47	1	0	0	0	29	1	0	0	0.0%
Maximum	0	522	110	551	359	245	551	359	546	219	2,380	32.0%

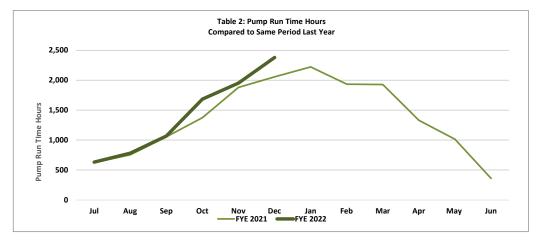
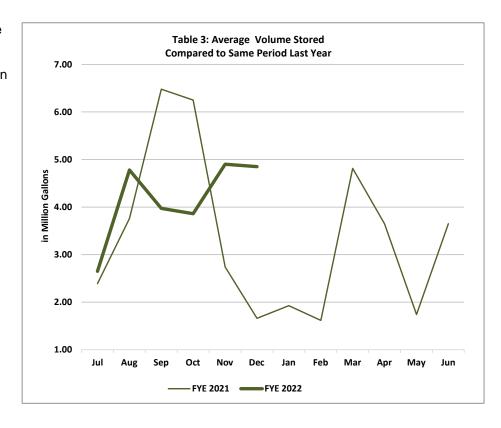


TABLE 3 - Monthly Average Storage Basin Levels and Volume

	Avera	ige Daily V	olume	Average		Storage
	Basin	Basin	Basin	Volume	Storage	Basin
	No. 1	No. 2	No. 3	Stored	Available	Utilization
Month	Feet	Feet	Feet	MG	MG	%
Jul-21	2.17	0.22	3.19	2.65	18	14.7%
Aug-21	4.97	3.44	0.53	4.78	18	26.6%
Sep-21	4.19	2.35	1.08	3.97	18	22.1%
Oct-21	3.09	1.98	2.96	3.86	18	21.4%
Nov-21	1.56	1.78	5.97	4.90	18	27.2%
Dec-21	3.89	1.49	4.24	4.85	18	26.9%
Jan-22					18	0.0%
Feb-22					18	0.0%
Mar-22					18	0.0%
Apr-22					18	0.0%
May-22					18	0.0%
Jun-22					18	0.0%
<u>Quarter</u>						
Average	2.85	1.75	4.39	4.54		0.25
Minimum	1.56	1.49	2.96	3.86		0.21
Maximum	3.89	1.98	5.97	4.90		0.27
YTD						
Average	3.31	1.88	3.00	4.17		11.6%
Minimum	1.56	0.22	0.53	2.65		0.0%
Maximum	4.97	3.44	5.97	4.90		27.2%



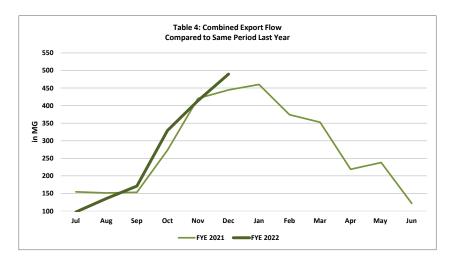
Note: Total available storage volume is 18 million gallons.

TABLE 4 - Monthly Export Flow

Estimated Flow: 3,358 MG

	Dublin San Ramon	Pleasanton	Livermore	Combined Export	
	Flow *	Flow *	Flow	Flow	Total for
Month	MG	MG	MG	MG	Quarter
Jul-21	0.00	9.24	88.11	97.35	
Aug-21	0.00	39.90	95.49	135.39	
Sep-21	0.00	77.99	92.97	170.96	403.69
Oct-21	35.96	172.01	120.69	328.65	
Nov-21	115.46	169.49	129.52	414.47	
Dec-21	122.90	221.07	146.09	490.06	1,233.19
Jan-22	0.00	0.00			
Feb-22	0.00	0.00			
Mar-22	0.00	0.00			0.00
Apr-22	0.00	0.00			
May-22	0.00	0.00			
Jun-22	0.00	0.00			0.00
<u>Quarter</u>					
Total	274.32	562.57	396.30	1,233.19	
Average	91.44	187.52	132.10	411.06	
Minimum	35.96	169.49	120.69	328.65	
Maximum	122.90	221.07	146.09	490.06	
YTD					Budgeted Flow
Total	274.22	689.70	672.07	4 626 00	Budgeted Flow:
	274.32 22.86	57.47	672.87 112.14	1,636.88 272.81	3,358 MG
Average Minimum	0.00		88.11		
		0.00		97.35	
Maximum	122.90	221.07	146.09	490.06	

^{*} Monthly totals do not include flows diverted for recycling use by DERWA and Pleasanton.



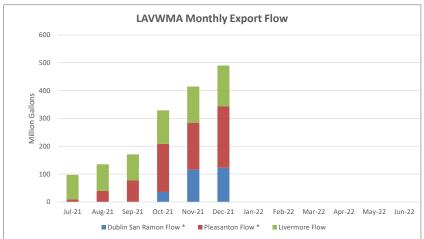


TABLE 5 - Labor Effort, Expenditures, and Budget Utilization

FY Labor Budget \$968,151

	Billed			YTD		Labor	Ехр	ort
	Labor	FTE	Labor	Labor	Budget	Budget	Flo	W
Month	Hours	Equiv	Invoice	Expense	Utilization	Remaining	MG	AF
Jul-21	353.5	2.0	\$59,266	\$59,266	6.1%	\$908,885	97.35	299
Aug-21	279.5	1.6	\$48,140	\$107,406	11.1%	\$860,745	135.39	416
Sep-21	256.2	1.5	\$43,940	\$151,346	15.6%	\$816,805	170.96	525
Oct-21	436.0	2.5	\$75,273	\$226,619	23.4%	\$741,532	328.65	1,009
Nov-21	323.5	1.9	\$55,760	\$282,379	29.2%	\$685,772	414.47	1,272
Dec-21	273.0	1.6	\$47,017	\$329,396	34.0%	\$638,755	490.06	1,504
Jan-22								
Feb-22								
Mar-22								
Apr-22								
May-22								
Jun-22								
QUARTER								
Total	1,032.5		\$178,050				1,233.19	3,785
Average	344.2	2.0	\$59,350				411.06	1,262
Minimum	273.0	1.6	\$47,017				328.65	1,009
Maximum	436.0	2.5	\$75,273				490.06	1,504
<u>YTD</u>								
Total YTD	1,921.7		\$329,396		34.0%	\$638,755	1,636.88	5,024
Average YTD	320.3	1.8	\$54,899				272.81	837
Minimum	256.2	1.5	\$43,940				97.35	299
Maximum	436.0	2.5	\$75,273				490.06	1,504

Notes:

TABLE 6 - O&M Expenditures and Budget Utilization

Total O&M Budget: \$2,558,901

_							Ove	rall		
			Total	YTD		O&M	0&	M	Expo	ort
	Labor	A/P	O&M	O&M	Budget	Budget	Co	st	Flov	w
Month	Expenses	Expenses	Expenses	Expenses	Utilization	Remaining	\$/MG	\$/AF	MG	AF
Jul-21	\$59,266	\$51,654	\$110,921	\$110,921	4.3%	\$2,447,980	\$1,139	\$371	97.35	299
Aug-21	\$48,140	\$102,505	\$150,645	\$261,566	10.2%	\$2,297,335	\$1,113	\$363	135.39	416
Sep-21	\$43,940	\$96,666	\$140,606	\$402,171	15.7%	\$2,156,730	\$822	\$268	170.96	525
Oct-21	\$75,273	\$75,803	\$151,076	\$553,247	21.6%	\$2,005,654	\$460	\$150	328.65	1,009
Nov-21	\$55,760	\$181,762	\$237,522	\$790,769	30.9%	\$1,768,132	\$573	\$187	414.47	1,272
Dec-21	\$47,017	\$98,370	\$145,388	\$936,156	36.6%	\$1,622,745	\$297	\$97	490.06	1,504
Jan-22										
Feb-22										
Mar-22										
Apr-22										
May-22										
Jun-22										
QUARTER										
Total	\$178,050	\$355,936	\$533,985				\$433	\$141	1,233.19	3,785
Average	\$59,350	\$118,645	\$177,995						411.06	1,262
Minimum	\$47,017	\$75,803	\$145,388				\$297	\$97	328.65	1,009
Maximum	\$75,273	\$181,762	\$237,522				\$573	\$187	490.06	1,504
YTD										
Total YTD	\$329,396	\$606,760	\$936,156		36.6%	\$1,622,745	\$572	\$186	1,636.88	5,024
Average YTD	\$54,899	\$101,127	\$156,026							
Minimum	\$43,940	\$51,654	\$110,921				\$297	\$97	97.35	299
Maximum	\$75,273	\$181,762	\$237,522				\$1,139	\$371	490.06	1,504

Notes:

a) A/P expenses dipped in December due to applied credit of \$89,058.20 to PG&E bill.

TABLE 7 - O&M Expenditures and Budget Utilization for Livermore Sole Use Facilities

	Liv	ermore Sole Use Facilit	ties	
	Labor	A/P	Total	
Month	Expenses	Expenses	Expenses	
Jul-21	\$0	\$167	\$167	
Aug-21	\$0	\$151	\$151	
Sep-21	\$0	\$166	\$166	
Oct-21	\$0	\$196	\$196	
Nov-21	\$0	\$168	\$168	
Dec-21	\$0	\$186	\$186	
Jan-22				
Feb-22				
Mar-22				
Apr-22				
May-22				
Jun-22				
<u>Quarter</u>				
Total	\$0	\$550	\$550	
Average	\$0	\$183	\$183	
Minimum	\$0	\$168	\$168	
Maximum	\$0	\$196	\$196	
<u>YTD</u>				
YTD Total	\$0	\$1,034	\$1,034	
YTD Average	\$0	\$172	\$172	
YTD Minimum	\$0	\$151	\$151	
TD Maximum	\$0	\$196	\$196	

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES: GOODS & SERVICES

													Curre	nt FY Period:	6
				ACTUAL	EXPENSES I	BILLED TO LA	VWMA FOR R	EGULAR O&N	И						
	Budget	July	August	September	October	November	December	January	February	March	April	May	June	YTD	YTD
	FY 2021-2022	2021	2021	2021	2021	2021	2021	2022	2022	2022	2022	2022	2022	TOTAL	Budget
Labor															
Staff	\$968,151	\$59,266	\$48,140		\$75,273	\$55,760	\$47,017							\$329,396	\$484,076
Subtotal	\$968,151	\$59,266	\$48,140	\$43,940	\$75,273	\$55,760	\$47,017	\$0	\$0	\$0	\$0	\$0	\$0	\$329,396	\$484,076
Materials & Supplies															
Operations Supplies	\$13,000	\$10	\$47		\$7		\$0							\$84	\$6,500
Mechanical Supplies	\$25,000		\$1,039			\$3,723	\$724							\$5,486	\$12,500
Electrical Supplies	\$59,400		\$3,177	<u>\$540</u>	<u>\$1,776</u>	\$2,398	\$12,097							\$19,988	\$29,700
Subtotal	\$97,400	\$10	\$4,263	\$550	\$1,783	\$6,131	\$12,821	\$0	\$0	\$0	\$0	\$0	\$0	\$25,558	\$48,700
Laboratory Analysis															
Compliance Testing	\$10,000	\$792	\$792		\$792		\$990							\$5,148	\$5,000
Operational Support Testing	\$4,000	\$366	\$366		\$366	\$366	\$366							\$2,196	\$2,000
Special Sampling	\$22,000	\$1,288	<u>\$1,610</u>		<u>\$1,288</u>	\$1,610	\$1,288							\$8,372	\$11,000
Subtotal	\$36,000	\$2,446	\$2,768	\$2,644	\$2,446	\$2,768	\$2,644	\$0	\$0	\$0	\$0	\$0	\$0	\$15,716	\$18,000
Contractual Services															
Sub-surface Repairs	\$15,000			.										\$0	\$7,500
Street Sweeping	\$5,000		\$500	\$400	\$400	\$500	\$300							\$2,100	\$2,500
Cathodic Protection Survey & Repairs	\$30,000													\$0	\$15,000
Underground Service Alert	\$4,500	\$5,029	\$896											\$896	\$2,250
SCADA software maintenance contract Remote monitoring annual service for PS and Re	\$17,000 \$5,000	\$5,029													
Med voltage switchgear 3-yr PM (FY22, \$18k))	\$20,000														
HVAC Maintenance/Repairs	\$750													\$0	\$375
Termite/Pest Control	\$900													\$0	\$450
Landscape/weed maintenance	\$10,000				\$2,941									\$2.941	\$5,000
Janitorial Service	\$9,500		\$1,220		\$425									\$1,645	\$4,750
Fire Extinguisher Maintenance	\$200													\$0	\$100
Postage/Shipping Charges	\$0													\$0	\$0
Professional Services, misc	\$30,000			\$876			\$922							<u>\$1,799</u>	<u>\$15,000</u>
Subtotal	\$147,850	\$5,029	\$2,616	\$1,276	\$3,766	\$500	\$1,222	\$0	\$0	\$0	\$0	\$0	\$0	\$14,409	\$73,925
Utilities															
Electricity (PG&E)	\$1,301,600	\$43,818	\$92,858	\$91,816	\$67,808		\$81,683							\$549,799	\$650,800
Water & Sewer (Pleasanton)	\$900	\$154		\$163		\$341								\$657	\$450
Water (EBMUD)	\$1,000	\$197		\$217		\$206								\$620	\$500
Telephone/communications	\$6,000													\$0	\$3,000
WW Treatment (DSRSD) Subtotal	\$0 \$1,309,500	\$44,169	\$92,858	\$92,196	\$67.808	\$172,363	\$81,683	\$0	\$0	\$0	\$0	\$0	\$0	<u>\$0</u> \$551.077	<u>\$0</u> \$654,750
	\$1,505,500	\$44,103	φ3 2 ,030	φ92,190	φ01,000	\$172,303	φ01,003	φ0	φ0	ΨU	40	40	40	\$331,077	φ034,730
Non-Routine	\$0													\$0	\$0
	\$0 \$0													\$0 \$0	\$0 \$0
Subtotal		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Monthly Total		\$110,921	\$150,645	\$140,606	\$151,076	\$237,522	\$145,388	\$0	\$0	\$0	\$0	\$0	\$0	\$936,156	\$1,279,451
YTD Total		\$110,921	\$261,566		\$553,247	\$790,769	\$936,156	\$936,156	\$936,156	\$936,156	\$936,156	\$936,156	\$936,156		. , ,
Combined Export Flow, mg	, , ,	97	135		329		490	+,	,	+,	,	+0,.00	Γ	1,637	1.679
Pumping Efficiency		54.2%	52.1%		63.5%	67.1%	65.7%						L	.,	.,576
Monthly Cost, \$/mg		\$1,139	\$1,113	\$822	\$460	\$351	\$485								
YTD Running Cost, \$/mg				*		•							Γ	\$572	
3 ,	•												<u></u>		

Q2 Notes:

a) December PG&E bill for Feeder B includes \$89,058.20 credit

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES: LABOR

													Currer	nt FY Period:	6
				ACTUAL E	XPENSES E	SILLED TO L	AVWMA FO	R REGUL	AR O&M						
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	YTD	YTD
FY.	2021-2022	2021	2021	2021	2021	2021	2021	2022	2022	2022	2022	2022	2022	TOTAL	Budget
Estimated Pers	onnel Hours														
Division 50 - Ops Admin	<u>o</u>														
	0	-	-	-	-	-	-	-	-	-	-	-		-	
Division 51 - FOD	<u>40</u>	<u>-</u>		<u> </u>	<u> </u>					<u>-</u>		<u>-</u> _			20.00
Water/Wastewater Sys Lead Op	0													-	-
Water/Wastewater Sys OP IV-On Call	0													-	-
Water/Wastewater Sys OP IV	30													-	15.00
Water/Wastewater Sys OP III	0													-	-
Water/Wastewater Sys OP II	10													-	5.00
Maintenance Worker	0													-	-
Supervisor	0													-	-
Division 52 - WWTP	3,080	180.50	123.50	127.19	283.00	144.50	93.50			<u>-</u>				952.19	1,540.00
Process Lead Operator IV/V	150				2.50									2.50	75.00
Senior WWTP Operator III	720	22.50	22.00	23.00	126.00	39.00	29.50							262.00	360.00
Operator In Training	400													-	200.00
Operator II	1,700	158.00	101.50	104.19	154.50	105.50	64.00							687.69	850.00
Operator II (SLSS)	0													-	-
Operations Superintendent	110													-	55.00
Division 53 - MECH	1,230	129.50	126.50	95.50	124.00	142.50	113.00	-	-	-	-	-	-	731.00	615.00
Senior Mechanic-Crane Cert	60	43.50	47.50	32.00	28.00	42.00	23.00							216.00	30.00
Senior Mechanic - USA	80	1.50		1.00	7.00		7.50							17.00	40.00
Maintenance Worker	60													-	30.00
Mechanic I/II	980	18.00			12.00	23.00	11.00							64.00	490.00
Mechanic II-Crane Cert	0	44.50	50.00	48.50	54.00	57.50	45.50							300.00	
Mechanic I/II - USA	0													-	-
Mechanic II-Crane Cert - USA	0	22.00	29.00	14.00	23.00	20.00	26.00							134.00	
Supervisor	50													-	25.00
Division 54 - ELEC	1,130	43.50	28.00	31.00	24.50	34.00	57.00		-	-	-	-	-	218.00	565.00
Senior Instrument/Controls Tech	30						15.00							15.00	15.00
Instrumentation & Controls Tech I/II	300	2.50	28.00	20.00	24.50	32.00	42.00							149.00	150.00
OPS Control Sys Spec	300													-	150.00
Senior Electrician	30	13.00		4.00										17.00	15.00
Electrician I/II	440	27.00		5.00		2.00								34.00	220.00
Principal Eletrical Engineer	30	1.00		2.00										3.00	15.00
Division 26 - SAFETY	60	-	-	-	-	-	-	-	-	-	-	-	-	-	30.00
Safety Officer	60	-													30.00
Division 40 - ENG	260	-	1.50	2.50	4.50	2.50	9.50	-	-	-	-	-	-	20.50	130.00
Senior Engineer-Supervisory	0														-
Associate/Senior Civil Engineer-SME	100		1.50	2.50	4.50	2.50	9.50							20.50	50.00
Construction Inspector I	80													-	40.00
Engineering Technician II	40													-	20.00
GIS Analyst	40													-	20.00
Total Estimated Personnel Hours	5,800														
FTE															
Total Mont	hly Houre	353.50	279.50	256.19	436.00	323.50	273.00							1,921.69	2.900.00

Notes: Senior Mechanic position is missing under Division 53. Hours charged to this position are entered under Senior Mechanic-Crane Cert

	1	1	05/505/5/00	_					
LAVWMA	October	2021	SELECT FIRS		1			1	
Parameter	Flow	CBOD	TSS	рН	рН	Total Residual Chlorine	Total Residual Chlorine	Fecal Coliforms	Enterococci
Units	MGD	mg/L	mg/L	SU	SU	mg/L	mg/L	MPN/100mL	MPN/100mL
Test Method	Daily Average (Me	SM 5210 B-2011	SM 2540 D-2011	SM 4500-H+B-2011	SM 4500-H+B-2011	Daily Average	Daily Average	SM 9221 C,E-2006	Enterolert
MDL									
RL		3.0	2.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
10/1/2021	6.08			7.42	7.52	0.688	0.001		
10/2/2021	6.68			7.45	7.53	0.540	0.001		
10/3/2021	6.22			7.44	7.52	0.593	0.001		
10/4/2021	6.11			7.44	7.52	0.550	0.001		
10/5/2021	6.95			7.47	7.53	0.372	0.001		
10/6/2021	6.82	3.7	7.9	7.53	7.56	0.421	0.001		
10/7/2021	9.17			7.51	7.58	0.264	0.001	8	10
10/8/2021	8.33			7.49	7.59	0.214	0.001		
10/9/2021	7.17			7.47	7.58	0.270	0.001		
10/10/2021	8.13			7.42	7.54	0.278	0.001		
10/11/2021	7.06			7.45	7.59	0.378	0.001		
10/12/2021	6.93			7.44	7.64	0.282	0.001	<2	<10
10/13/2021	6.05	4.6	9.2	7.44	7.55	0.422	0.001		
10/14/2021	7.40			7.42	7.53	4.092	0.001		
10/15/2021	7.35			7.43	7.57	3.612	0.001		
10/16/2021	8.81			7.39	7.57	1.645	0.001		
10/17/2021	7.41			7.45	7.61	1.161	0.001		
10/18/2021	9.23			7.49	7.58	1.019	0.001		
10/19/2021	9.64			7.51	7.56	1.424	0.001	11	<10
10/20/2021	10.20	6.4	9.2	7.49	7.55	1.480	0.001		
10/21/2021	11.33			7.46	7.53	0.938	0.001		
10/22/2021	13.55			7.46	7.56	0.535	0.001		
10/23/2021	16.61			7.46	7.54	0.530	0.001		
10/24/2021	24.15			7.43	7.59	0.436	0.001		
10/25/2021	21.69			7.20	7.43	0.301	0.001		
10/26/2021	15.98			7.27	7.39	0.803	0.001	<2	<10
10/27/2021	12.50	3.8	7.7	7.34	7.45	1.242	0.001		
10/28/2021	16.44			7.42	7.49	0.954	0.001		
10/29/2021	15.49			7.42	7.51	0.614	0.001		
10/30/2021	15.49		-	7.47	7.54	0.377	0.001		
10/31/2021	13.72			7.47	7.56	0.869	0.001		

Note:

Column E - pH Minimum; online Column F - pH Maximum; online

LAVWMA	November	2021	SELECT FIRST	r					
Parameter	Flow	СВОД	TSS	рН	рН	Total Residual Chlorine	Total Residual Chlorine	Fecal Coliforms	Enterococci
Units	MGD	mg/L	mg/L	SU	SU	mg/L	mg/L	MPN/100mL	MPN/100mL
Test Method	Daily Average (Me	SM 5210 B-2011	SM 2540 D-2011	SM 4500-H+B-2011	SM 4500-H+B-2011	Daily Average	Daily Average	SM 9221 C,E-2006	Enterolert
MDL									
RL		3.0	2.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
11/1/2021	14.51			7.44	7.53	0.814	0.001	0_0	0.00
11/2/2021	13.75			7.47	8.29	0.739	0.016	<2	<10
11/3/2021	14.36	6.0	12.8	7.46	7.55	0.836	0.053		120
11/4/2021	15.34			7.45	7.52	1.173	0.013		
11/5/2021	14.88			7.44	7.51	0.912	0.005		
11/6/2021	13.33			7.45	7.51	0.878	0.001		
11/7/2021	14.90			7.46	7.52	0.770	0.001		
11/8/2021	13.46			7.46	7.52	0.538	0.001		
11/9/2021	15.15			7.43	7.55	0.694	0.001	22	<10
11/10/2021	15.27	6.6	19.6	7.44	7.50	1.033	0.001		
11/11/2021	15.26			7.45	7.55	0.933	0.001		
11/12/2021	14.65			7.44	7.56	1.353	0.001		
11/13/2021	14.30			7.39	7.51	0.778	0.001		
11/14/2021	12.97			7.42	7.52	0.688	0.001		
11/15/2021	12.09			7.42	7.55	1.311	0.001		
11/16/2021	11.55			7.46	7.55	1.048	0.001	4	20
11/17/2021	13.11	3.7	7.7	7.47	7.55	0.545	0.001		-
11/18/2021	13.29			7.50	7.68	0.326	0.001		
11/19/2021	15.07			7.49	7.60	0.550	0.001		
11/20/2021	14.52			7.45	7.56	0.601	0.001		
11/21/2021	12.98			7.43	7.55	0.483	0.001		
11/22/2021	13.81			7.42	7.52	1.097	0.001		
11/23/2021	12.89	6.3	12.9	7.44	7.55	1.516	0.001	2	<10
11/24/2021	13.02			7.47	7.58	1.619	0.001		
11/25/2021	14.21			7.42	7.60	1.654	0.001		
11/26/2021	12.40			7.40	7.49	1.709	0.001		
11/27/2021	13.54			7.39	7.49	1.795	0.001		
11/28/2021	13.25			7.44	7.51	1.691	0.001		
11/29/2021	13.12			7.44	7.60	1.640	0.001		
11/30/2021	13.50			7.46	7.56	2.636	0.004	<2	<10

Note:

Column E - pH Minimum; online Column F - pH Maximum; online

LAVWMA	December	2021	SELECT FIRS	7					
LAVVVIVIA	December	2021	SALEGISTINS						
Parameter	Flow	CBOD	TSS	рН	рН	Total Residual	Total Residual	Fecal Coliforms	Enterococci
						Chlorine	Chlorine		
Units	MGD	mg/L	mg/L	SU	SU	mg/L	mg/L	MPN/100mL	MPN/100mL
Test Method	Daily Average (Me	SM 5210 B-2011	SM 2540 D-2011	SM 4500-H+B-2011	SM 4500-H+B-2011	Daily Average	Daily Average	SM 9221 C,E-2006	Enterolert
MDL									
RL		3.0	2.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
12/1/2021	12.68	7.1	11.3	7.44	7.76	4.766	0.005		
12/2/2021	12.55			7.47	7.60	4.515	0.002		
12/3/2021	12.97			7.49	7.66	4.011	0.001		
12/4/2021	12.33			7.47	7.56	3.146	0.001		
12/5/2021	12.57			7.49	7.57	4.295	0.001		
12/6/2021	11.71			7.47	7.57	3.359	0.001		
12/7/2021	12.83			7.46	7.55	4.820	0.001	2	<10
12/8/2021	12.53	5	9.8	7.28	7.67	5.480	0.001		
12/9/2021	13.68			7.50	7.59	5.960	0.001		
12/10/2021	14.07			7.51	7.60	5.833	0.001		
12/11/2021	13.69			7.47	7.57	6.525	0.001		
12/12/2021	17.28			7.45	7.57	7.076	0.001		
12/13/2021	14.22			7.44	7.58	7.876	0.001		
12/14/2021	17.45			7.28	7.45	8.086	0.001	13	<10
12/15/2021	16.99	6.2	8.4	7.41	7.52	9.393	0.001		
12/16/2021	14.54			7.45	7.55	9.496	0.001		
12/17/2021	17.15			7.46	7.56	9.881	0.001		
12/18/2021	15.73			7.49	7.56	9.904	0.001		
12/19/2021	15.94			7.47	7.57	9.939	0.001		
12/20/2021	15.42			7.44	7.56	8.715	0.001		
12/21/2021	17.44	7.3	9.7	7.46	7.60	7.616	0.001	<2	<10
12/22/2021	17.01			7.46	7.57	8.042	0.001		
12/23/2021	19.20			7.37	7.49	9.796	0.001		
12/24/2021	20.14			7.38	7.44	9.869	0.001		
12/25/2021	18.14			7.41	7.46	9.596	0.001		
12/26/2021	18.99			7.37	7.47	8.127	0.001		
12/27/2021	19.66			7.32	7.47	8.930	0.001		
12/28/2021	17.26	9	8.9	7.38	7.44	7.685	0.001	<2	<10
12/29/2021	21.01			7.43	7.48	7.405	0.001		
12/30/2021	17.23			7.43	7.50	8.902	0.001		
12/31/2021	17.64			7.46	7.55	9.378	0.001		

Note:

Column E - pH Minimum; online Column F - pH Maximum; online

DUBLIN SAN RAMON SERVICES DISTRICT WASTEWATER TREATMENT FACILITY

LAVWMA - 4th Quarter 2021

Langelier pH Saturation Index

Collection DATE	TDS	Temp	Ca Hardness	Alkalinity (mg/L CaCO ₃)	pH (Actual)	pH	Langlier	
	(mg/L)	(°C)			(Actual)	Saturation	Index	=
10/19/21	768	24.5	118	360	7.4	7.2	0.2	
11/09/21	742	21.8	114	344	7.4	7.3	0.1	
12/06/21	731	20.0	108	326	7.4	7.4	0.1	
								•
MAXIMUM	768	24.5	118	360	7.4	7.4	0.2	
MINIMUM	731	20.0	108	326	7.4	7.2	0.1	
AVERAGE	747	22.1	113	343	7.4	7.3	0.1	

DUBLIN SAN RAMON SERVICES DISTRICT WASTEWATER TREATMENT FACILITY

DSRSD - 4th Quarter 2021

Langelier pH Saturation Index

Collection	TDS	Temp	Ca Hardness	Alkalinity	рН	рН	Langlier	
DATE	(mg/L)	(°C)	(mg/L CaCO ₃)	(mg/L CaCO ₃)	(Actual)	Saturation	Index	
10/19/21	848	23.8	140	396	7.5	7.1	0.4	
11/09/21	815	22.5	124	339	7.5	7.3	0.2	
12/06/21	790	22.0	122	326	7.1	7.3	-0.1	
MAXIMUM	848	23.8	140	396	7.5	7.3	0.4	•
MINIMUM	790	22.0	122	326	7.1	7.1	-0.1	
AVERAGE	818	22.8	129	354	7.4	7.2	0.2	

CITY OF LIVERMORE LIVERMORE WATER RECLAMATION PLANT

Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (°C)	Ca Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	pH (Actual)	pH Saturation	Langlier Index
10/06/21	610	24.0	73	318	7.4	7.5	-0.1
11/08/21	648	21.0	68	329	7.6	7.6	-0.1
12/01/21	644	21.0	73	313	7.5	7.6	-0.1
MAXIMUM	648	24.0	73	329	7.6	7.6	-0.1
MINIMUM	610	21.0	68	313	7.4	7.5	-0.1
AVERAGE	634	22.0	71	320	7.5	7.6	-0.1

LAVWMA Action Item List Month: Nov-21

SAG Task	Responsible Party	Due Date	Status	Completion Date
Items for February 16, 2022 LAVWMA Board Meeting.	SAG	NA	Primary activity since the last Board meeting has been management of capital projects. SAG to be updated on projects prior to Board meeting.	
Operations Coordination Committee Task	Responsible Party	Due Date	Status	Completion Date
FYE21 Replacement Projects: See Items Below	Weir/Zavadil/Delight	Various dates	Refer to information below.	Dute
MCC and Soft Starter Replacement Project. Carryover from FYE20 and into FYE21. Estimated design cost \$250,000. Project now includes Electrical Improvements to the Main Switchgear at the Pump Station. Total estimated cost \$2,300,000 - \$2,500,000.	Weir/Atendido	12/31/2021	Project is nearly complete. All submittals and RFIs have been addressed. Royal Electric moved on site July 6, 2021. The schedule has extended to December 11, 2021 to account for having to demo and pour a new concrete pad for MCC-P1. Both MCCs have been completed and are in serivce. There have been four contract change orders issues at a cost of \$34,738 or 1.68% of the contract price. Remaining items are all punch list related and include some programming of instrumentation and controls.	Expected by 2/28/22
Purchase Three New Pumps and Rebuild Two Associated Motors. Estimated cost has increased to \$460,000	Weir/Quinlan	6/30/2022	Bid packet was posted and distributed on July 6, 2021. A mandatory prebid meeting was held on July 15, 2021 and was attended by four pump vendors. Addendum No. 1 was issued on August 2, 2021. Four bids were received by the deadline of August 5, 2021. Bids ranged from \$357,057 to \$941,200. Trillium submitted the low bid. References have been contacted and have been positive. Budget Modification No. 1 to increase the project cost was approved by the Board August 18, 2021. The Board had two special meetings in September to provide direction. All bids sere rejected and the GM and General Counsel were directed to negotiate the best deal with the low bidder Trillium. The contract was fully executed with Trillium on December 9, 2021 at the original bid price. There are still minor issues being respoved with the insurance documentation, but the project is proceeding. Trillium's Pump Submittal Package was received on January 21, 2022. LAVWMA's design engineer is currently reviewing and will have a response the week of February 7, 2022.	
Resealing of all Three Storage Basins. Estimated cost \$200,000	Quinlan	12/31/2020	Project is complete. Some issues due to water getting under some of the seal areas. Area has been cleaned and all three basins are in service and will be fine through the winter. Solutions will be reevaluated after wet weather.	5/1/2021
San Leandro Sample Station Design Improvements, Estimated cost \$670,000	Weir	6/30/2022	RFP for engineering services was posted to the website on June 28, 2021. A non-mandatory site visit is scheduled for June 13, 2021. Proposals were due 5:00 p.m. Monday, July 26, 2021. HydroScience (HS) was the only one to submit a bid. SAG members reviewed and rated the proposal; average score of 81.5 out of 90. HS was awarded the contract at a total of \$185,000. HS has held a kickoff meeting and has been to the site several times taking measurements, talking to DSRSD staff, and taking pictures. A 30% design memo should be received this week. Due to COVID-related issues, including inflation and supply chain issues, the engineer's estimated cost of the project has increased approximately 40% from the original estimate. The total project cost will likely need to be increased to at least \$900,000. Since the construction will take carry over into the next fiscal year, increasing the project cost can occur during the next budget approval process. DSRSD staff has reviewed the new estimated costs and has found it reasonable. The 90% design is nearing completion.	
Road Drainage Improvements at the Pump Station. Estimated cost \$35,000	TBD	12/31/2020	To be combined with similar projects at DSRSD.	
Cathodic Protection Projects. Estimated cost \$185,000	Weir/Atendido	12/31/2020	Corrpro has completed most items that did not require any excavation. Permits have been received for three projects needing excavation and were provided to Corrpro. They are in the process of scheduling their work. Corrpro had planned to begin the week of November 1, but had to cancel due the inability to get certain equipment for excavation to the site.	
PLC Upgrade at the Pump Station. Estimated cost \$300,000	TBD	6/30/2021	Will be included in DSRSD SCADA project, which is design build. Project has begun. Scoping meetings with staff have been held and the project is still in development.	
Pipeline Inspection. Estimated cost \$100,000	TBD	6/30/2021	Scope will be based on the results and recommendations of the HydroScience (National Plant Services) inspection project. Inspection site selection will begin soon. A planning meeting with DRSD staff was held in early November. The project will likely occur after the rainy season.	
Smart Detectors on High Maintenance Air/Vac and Air Release Valves. Estimated cost \$40,000	TBD	6/30/2021	The smart detectors are intended to help prevent leaks from the valves along the forcemain system. Three have been installed for testing and have proven to be beneficial. Three additional units were ordered to be used in areas that could cause problems if there were leaks.	S
Rewiring the actuators on the pump deck. Estimated cost \$50,000.	Atendido	12/31/2021	Royal Electric provided a change order estimate of \$10,500, which has been issued.	
Other Items Wet Weather Issues	Sevilla	10/31/2020	DSRSD Operations successfully managed the storm on October 24 and 25, 2021. The basins were emptied in advance of the storm. Both MCCs happened to be available. A maximum of seven pumps were run to send flow to EBDA. Operations has indicated that had MCC-PI not been available they still would have been able to manage the storm through a combination of pumping and storage.	
Live test of SLSS system	Sevilla/Atendido	TBD	A test was conducted on November 3, 2021. There were no significant issues encountered during the test. The SLSS design engineer was on site and gathered valuable information that will assist in the upgrade design.	
Live test of Alamo Canal discharge during wet weather	Carson/Sevilla	TBD	Test postponed due to COVID-19. Was planning on this winter, but will likely be delayed until 2022 due to COVID-19.	
Wet Well Isolation Gates	Quinlan	6/30/2019	Gate is in good shape but won't fully close. No date set, perhaps this winter.	
EBDA Enterococcus Issue YTD O&M Expenses compared to budget	Sevilla Carson, Weir	Ongoing	No issues at this time. No issues at this time. PG&E switched Feeder B back to the old rate schedule and overcharged \$89,000, which has been credited back to LAVWMA.	

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

ITEM NO. 10 PROJECT STATUS REPORTS - MOTOR CONTROL CENTER REPLACEMENT PROJECT, PURCHASE OF THREE VERTICAL TURBINE PUMPS, AND THE SAN LEANDRO SAMPLE STATION IMPROVEMENTS PROJECT

Action Requested

None at this time.

Summary

The Board previously authorized both the Motor Control Center Replacement Project (MCC Project), Purchase of Three Vertical Turbine Pumps, and the San Leandro Sample Station Improvements Project (SLSS Project). Each project is discussed in more detail below.

MCC Replacement Design and Construction Project Status

DTN Engineers is the design engineer, Royal Electric is the contractor, and Psomas is the construction manager. This project is now in its final stages. All of the new equipment has been installed and became fully operational in November 2021. There are still a few items to complete related to instrumentation and control settings which should be addressed in the next few weeks. This effort is being completed by Eaton Electric, a sub-contractor to Royal Electric. Eaton is the manufacturer of the MCC equipment. There have been four contract change orders for a total of \$34,738 or 1.68% of the \$2,222,222 contract price.

Purchase of Three Vertical Turbine Pumps

At the September 29, 2021 special meeting, the Board rejected all bids and authorized the General Manager to work with General Counsel to negotiate an agreement with the low bidder, Trillium Pumps USA, and if unsuccessful, to negotiate with the next lowest bidder, Peerless Pumps. Although it took longer than anticipated an agreement with Trillium was successfully negotiated and fully executed on December 9, 2021. After the negotiations were complete Trillium changed the signatories on the agreement and this delayed final execution by several weeks. The agreement maintained the original bid amount of \$357, 057.

Trillium's pump submittal package was received on January 21, 2022. LAVWMA's design engineer is currently reviewing the submittal and should have a response in early February. No serious issues have yet been identified.

Although the project is underway, there are a few remaining issues with the insurance documentation submitted by Trillium's insurance carrier. General Counsel has been diligent in reviewing the documents for compliance with the contract documents. Two revisions to the documentation have been received. This issue should be resolved within the next week.

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

San Leandro Sample Station Improvements Project

HydroScience Engineers (HS) is the design engineer for this project. Their contract is for \$185,000. The original estimate for the construction cost was \$485,000. HS held a kick off meeting with DSRSD staff that included a site visit. In addition, HS attended the test of the system pursuant to the NPDES permit on November 3, 2021. HS has completed a 30% design technical memo (TM). The estimated construction cost has increased to \$730,000 as was reported at the last meeting. Engineering scope has been added to the project since it was first developed and prices have increased for many major items.

Increasing the scope of the project has also increased the scope of the engineering services required. HydroScience has submitted a request to increase their cost by \$44,800 above the original cost of \$185,000, or by 24.2%. This increase has been reviewed by the General Manager and member agencies and is considered reasonable. This item is considered separately in Agenda Item No. 11.

Recommendation

It is recommended that the Board review and approve Agenda Item No. 11, Amendment No. 1 to Agreement for Consultant Services with HydroScience for the Design of the San Leandro Sample Station Improvements Project.

Attachments

None

Agenda Explanation
Livermore-Amador Valley
Water Management Agency
Board of Directors
February 16, 2022

ITEM NO. <u>11</u> AMENDMENT NO. 1 TO AGREEMENT FOR CONSULTANT SERVICES WITH HYDROSCIENCE FOR THE DESIGN OF THE SAN LEANDRO SAMPLE STATION IMPROVEMENTS PROJECT

Action Requested

Approve Amendment No. 1 to Agreement for Consultant Services with HydroScience for the Design of the San Leandro Sample Station Improvements Project.

Summary

The agreement with HydroScience was fully executed on August 23, 2021. During the preliminary design process, site visits, and input from the General Manager and DSRSD staff the scope of the design has expanded. The additional items in the scope will improve the final product and are supported by DSRSD and the member agencies. HydroScience submitted a request for additional compensation for the additional scope on January 27, 2022. The increase in compensation is \$44,800, which is a 24.2% increase above the original \$185,000 cost ceiling. The additional scope includes vault lighting, vault level sensors, building exhaust fans, flap gate alternatives, new instrumentation and control devices, additional coordination with the City of San Leandro, enhanced chemical dosing control, sample system improvements, and development of a flap gate test mode. All of these items are more fully described in the request from HydroScience, which is incorporated into the proposed budget amendment.

Recommendation

It is recommended that the Board approve the First Amendment to Agreement for Consultant Services with HydroScience Engineers, Inc., for the engineering design services for the San Leandro Sample Station Improvements Project.

Attachment

First Amendment to Agreement for Consultant Services.

FIRST AMENDMENT TO AGREEMENT FOR CONSULTANT SERVICES

This amendment ("First Amendment") to the Agreement for Consultant Services is entered into and effective this ____ day of February 2022 by and between the Livermore-Amador Valley Water Management Agency ("LAVWMA"), and HydroScience Engineers, Inc., a professional corporation ("Consultant"), with references to the following facts and intentions:

RECITALS

- A. On August 23, 2021, LAVWMA and Consultant entered into an Agreement for Consultant Services wherein Consultant agreed to provide engineering design services for LAVWMA's San Leandro Sample Station Improvements Project; and
- B. The Agreement provides for a not to exceed Cost Ceiling of \$185,000 without prior written authorization by LAVWMA's General Manager; and
- C. The parties wish to modify the Cost Ceiling in the manner authorized by the Agreement.

OPERATIVE PROVISIONS

NOW, THEREFORE, for good and sufficient mutual consideration set forth herein, the Parties do hereby enter into this First Amendment which modifies and amends the Agreement as follows:

1. Amendment.

- **1.1** Section 2.1 of the Agreement, entitled "Compensation" is hereby amended in its entirety to read as follows:
 - 2.1 Compensation. LAVWMA will compensate Consultant for all Services fully performed in compliance with this Agreement to LAVWMA's satisfaction, as further specified in Exhibit B, Compensation, Exhibit B-1, Rate Schedule, and January 27, 2022, Consultant letter: Amendment Request #1 Engineering Services for San Leandro Sample Station Improvements Project; all of which are attached hereto and incorporated herein. Compensation for the Services will not exceed \$229,800 ("Cost Ceiling"), without prior written authorization by LAVWMA's General Manager. Consultant will promptly notify LAVWMA in writing when the total amount it has invoiced meets or exceeds 90 percent of the Cost Ceiling.
- **1.2 Exhibit A** San Leandro Sample Station Improvements Scope of Services is hereby amended to include the additional scope described in Consultant's January 27, 2022 letter, which is attached hereto and incorporated by this reference as if set forth in full.

2. General Provisions

- **2.1 Remainder Unchanged**. Except as specifically modified and amended in this First Amendment, the Agreement remains in full force and effect and binding upon the parties.
- **2.2 Integration**. This First Amendment consists of pages 1 through 2 inclusive, and the modifications to Exhibit A, which constitute the entire understanding and agreement of the parties.
- **2.3 Effective Date**. Upon full execution, this First Amendment shall be effective on the date first written above.
- **2.4 Applicable Law**. The laws of the State of California shall govern the interpretation and enforcement of this First Amendment.
- **2.5 References**. All references to the Agreement include all their respective terms and conditions. All defined terms utilized in this First Amendment have the same meaning as provided in the Agreement, unless expressly stated to the contrary in this First Amendment.

IN WITNESS WHEREOF, the Parties have executed this First Amendment to the Agreement as follows.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

By:	Date	
Charles V. Weir, General Manager		
Approved As To Form		
By:Alexandra M. Barnhill, General Counsel	Date	
DTN ENGINEERS, INC.		
By:Bill Slenter, P.E., Project Manager	Date	

EXHIBIT B

Compensation

LAVWMA will compensate Consultant for Services satisfactorily performed in compliance with the Agreement based on Consultant's approved hourly rates, as set forth in **Exhibit B-1**, **Rate Schedule** and authorized reimbursements, as specified below, up to the Cost Ceiling (as defined in Section 2.1 of the Agreement). Consultant is responsible for prudent management of its time and resources to provide the Services on a cost-effective basis. Compensation will be solely based on the following costs, all of which count toward the Cost Ceiling:

- 1. *Direct Labor*. Consultant's compensation will be based on the total number of hours each employee of Consultant spent performing the Services times the approved hourly rate for each such employee as set forth in Exhibit B-1, Rate Schedule, including any work performed on overtime or on holidays or weekends, unless otherwise required by Laws.
- 2. Subconsultant Costs. Services provided by authorized subconsultants will be compensated based on Consultant's direct cost plus a markup of not more than 10%. A copy of each subconsultant's invoice for Services must be submitted with Consultant's invoice for those Services.
- 3. Other Direct Costs. Consultant will be reimbursed, as set forth below, for certain reasonable, direct costs which are necessarily incurred to perform the Services, but without any additional mark-up and subject to appropriate documentation for costs actually incurred, which must be submitted with the invoice seeking such reimbursement. Consultant will not be entitled to compensation for costs that have not yet been incurred, or for costs that are not reasonable under the circumstances.
 - a. Subject to LAVWMA's prior written authorization, Consultant will be reimbursed for reasonable living and traveling expenses.
 - b. Consultant will be reimbursed for personal vehicle use, at the current IRS approved mileage rate.
 - c. Consultant will be reimbursed for reproduction of Work Product as required under this Agreement, based on reasonable local rates for bulk reproduction or at other reasonable rates approved by LAVWMA.
 - d. Consultant will be reimbursed for special overnight delivery or messenger services.

EXHIBIT B-1 Rate Schedule

Pursuant to Section 1 of Exhibit B, Compensation, Consultant will be compensated based on the following hourly rates, which may not be modified, except by a written amendment as specified in Section 7.2, Amendment, of the Agreement.

HYDROSCIENCE ENGINEERS, INC.

2021 Standard Schedule of Billing Rates

LABOR CLASSIFICATION	HOURLY RATE
Principal	\$255
Engineer IX	\$245
Engineer VIII	\$235
Engineer VII	\$225
Engineer VI	\$215
Engineer V	\$205
Engineer IV	\$195
Engineer III	\$185
Engineer II	\$175
Engineer I	\$160
Engineering Aide	\$95
Construction Professional VI	\$175
Construction Professional V	\$165
Construction Professional IV	\$155
Construction Professional III	\$145
Construction Professional II	\$135
Construction Professional I	\$125
Cross Connection Control Specialist	\$115
CAD Manager	\$135
CAD Designer I	\$115
Marketing Professional	\$105
Administrative II	\$95
Administrative	\$80

AD OFFICE ON A LOT AFF		PERSONI	VEL RATES	
PROFESSIONAL STAFF			TECHNICAL STAFF (PREVAILING WAGE)	
Principal	\$	248.00	Field Supervisor	\$ 171.00
Seni or Professional	\$	221.00	Group 1 - Special Inspector	\$ 149.0
Project Professional II	\$	204.00	Group 2 - Special Inspector	\$ 142.0
Project Professional I	\$	171.00	Group 3 - Engineering Technician	\$ 129.0
Staff Professional II	\$	154.00	Group 4 - Technician	\$ 112.0
Staff Professional I	\$	138.00	Ground Penetrating Radar Scanning Technician	\$ 289.0
Seismi c GIS	\$	193.00	Core Drilling Technician	\$ 210.0
GIS Specialist	\$	138.00	Floor Flatness Testing Technician	\$ 189.0
The STAND WITH THE PROPERTY OF		154.00		
Information Specialist II	\$		Sample Pickup / Transportation / Delivery	\$ 108.0
Information Specialist I	\$	138.00	Laboratory Technician	\$ 108.0
CAD	\$	100.00	Administrative Assistant / Clerical	\$ 86.0
Project Administrator	\$	95.00	Litigation support	1.5x standard rat
COMPLETAT			DADIO OF CIVADOSCOP CITAD TROVANCIAN OCCUPAN	
EQUIPMENT		1	BASIS OF CHARGES FOR FIELD TECHNICIAN SERVICES	
Nuclear Gauge (Day)	\$	61.00	Field Work from 0 to 4 hours	BIII 4 hour
Ultrasonic Weld Equipment (Day)	\$	61.00	Field Work from 4 to 8 hours	Bill 8 hour
Torque Wrench (Day)	\$	61.00	Field Work over 8 hours / Saturdays	Bill time and a ha
Proof Load Equipment (Day)	\$	61.00	Sundays, holidays and over 12 hours	Bill double tim
Rebar Locator / Pachometer	\$	110.00	Swing shift (4:00pm to Midnight)	Add \$20.00 per hou
Hand Auger (Day)	\$	221.00	Graveyard Shift	Add \$30.00 per hou
Water Meter (Day)	Š	56.00	Show-up time (no work performed)	Bill 2 hour
Drilling Kit - Paint, stakes and lath - (Project)	\$	29.00	Sampling or cylinder pickup, minimum charge	Bill 2 hour
Drilling Supplies - Reuse of tubes/caps (Project)	\$	276.00		
Manometer (Day)	\$	221.00	DIR/PREVAILING WAGE ADMINISTRATION FEES (MONTHLY)	
Double Ring Infiltrometer (Day)	\$	551.00	Certified Payroll / DIR Upload	\$ 300.0
			Non-Performance Certified Payroll / DIR Upload	\$ 100.00
ANALYSIS SOFTWARE USA GE FEES			Subcontractor Management / Compliance Forms	\$ 100.00
gINT (Project)	\$	56.00	Additional LCP Tracker or Other Compliance Software	\$ 200.0
	Š	56.00	Additional Special Forms, as required	\$ 150.00
LPile (Project)			Additional Special Forms, as required	5 130.00
APIle (Project)	\$	56.00	2.00 (4.00 (4.00)	
SHAFT (Project)	\$	56.00	REIMBURSABLES	
GROUP (Project)	\$	110.00	Mileage (Portal to Portal)	\$ 0.88
Cliq (Project)	\$	56.00	Per Diem (as required)	\$ 150.00
LiquefyPro (Project)	\$	56.00	BridgeTall	Cost + 15%
LigIT (Project)	Ś	56.00	Parking Fees	Cost + 15%
NovoLIQ (Project)	\$	56.00	Subconsultant/Subcontractor Services, Vendors, and Expenses	Cost + 15%
Slide (Project)	\$	110.00	Project Administration Fees	7% of Invaice
Settle3D (Project)	\$	110.00	DIR Administration Fees	3% afinvaic
ArcGIS (Project)	\$	56.00	Project Setup (Project)	\$500.00
EZ-FRISK (Per Project Site / Site Class)	\$	525.00		
	M	ATERIALSIA	BORATORY TESTS	
SOILS	100	A IERIAL LA	DOLATOR T (23)3	
Moisture Density Curves			C-1/5	
			California Bearing Ratio (CBR)	WILL THE ALL
		256.00	CBR at 100% (ASTM D1883 or AASHTOT-180)	
Standard Proctor, 4" (ASTM/AASHTO)	\$			
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO)	\$	256.00	CBR at 95% (ASTM D1883 or AASHTO T-180)	
Standard Proctor, 4" (ASTM/AASHTO)				
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO)	\$ \$	256.00		
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216)	\$ \$	256.00 2 7 2.00 233.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests	\$ 1,079.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557)	\$ \$	256.00 272.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434)	\$ 1,0 7 9.00 \$ 30 7 .00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point	\$ \$	256.00 2 7 2.00 233.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084)	\$ 1,079.00 \$ 307.00 \$ 478.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis	\$ 5 5 5	256.00 272.00 233.00 148.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434)	\$ 1,079.00 \$ 307.00 \$ 478.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sleve Analysis w/ Wash (ASTM D422)	\$ 5 5 5 5	256.00 272.00 233.00 148.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084)	\$ 1,079.00 \$ 307.00 \$ 478.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140)	\$ 5 5 5	256.00 272.00 233.00 148.00 185.00 90.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 608.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/D1557) Caltrans Maximum Wet Density (CT216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422)	\$ \$ \$ \$ \$ \$ \$ \$ \$	256.00 272.00 233.00 148.00 185.00 90.00 244.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 608.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140)	\$ 5 5 5	256.00 272.00 233.00 148.00 185.00 90.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 608.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/D1557) Caltrans Maximum Wet Density (CT216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422)	\$ \$ \$ \$ \$ \$ \$ \$ \$	256.00 272.00 233.00 148.00 185.00 90.00 244.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/DASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis S(eve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422)	5 5 5 5 5 5	256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 142.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D824) Visual Classification (ASTM D2488)		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 142.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis wy, Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D421) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D554) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 608.00 \$ 153.00 \$ 71.00 \$ 142.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D824) Visual Classification (ASTM D2488)		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 142.00 \$ 61.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2974) % Organics in Soil (ASTM D2974)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) PH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Teste Freeze Thaw Abrasion (ASTM D550)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 142.00 \$ 61.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2974) Atterberg Limits / Swell Tests		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00 137.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Coment Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 61.00 \$ 681.00 \$ 547.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2974) % Organics in Soil (ASTM D2974)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) PH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Teste Freeze Thaw Abrasion (ASTM D550)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 142.00 \$ 61.00 \$ 547.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis sw/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318)		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00 137.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 61.00 \$ 681.00 \$ 547.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422), Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221), Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equival ent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D437)		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00 137.00 149.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 608.00 \$ 71.00 \$ 142.00 \$ 61.00 \$ 681.00 \$ 547.00 \$ 818.00 \$ 261.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis sw/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318)		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00 137.00 149.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 608.00 \$ 71.00 \$ 142.00 \$ 61.00 \$ 647.00 \$ 818.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis (ASTM D422) Minus #200 Wash, Soil (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29)		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00 137.00 149.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Coment Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting, Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 608.00 \$ 71.00 \$ 142.00 \$ 61.00 \$ 681.00 \$ 547.00 \$ 818.00 \$ 261.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/DASHTO) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sfeve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D584) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Molsture Density Test		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00 137.00 238.00 222.00 256.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D559) Westing-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 142.00 \$ 51.00 \$ 581.00 \$ 818.00 \$ 261.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422). Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422). Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæge Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Moisture Density Test Tube Density Test		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 47.00 137.00 149.00 238.00 256.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 61.00 \$ 647.00 \$ 888.00 \$ 261.00 \$ 71.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/DASHTO) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sfeve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D584) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Molsture Density Test		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 47.00 137.00 238.00 222.00 256.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Disperstion (ASTM D6572)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 61.00 \$ 647.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 71.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422). Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422). Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæge Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Moisture Density Test Tube Density Test		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 47.00 137.00 149.00 238.00 256.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 61.00 \$ 64.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 71.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422). Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422). Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæge Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Moisture Density Test Tube Density Test		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 47.00 137.00 149.00 238.00 256.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Disperstion (ASTM D6572)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 547.00 \$ 547.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 72.00 \$ 5272.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equival ent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæel Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Molsture Density Test Tube Density Moisture Content of Soils (ASTM D2216)		256.00 272.00 233.00 148.00 90.00 244.00 340.00 137.00 149.00 238.00 222.00 256.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D559) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Dispersion (ASTM D5572) Pinhole Dispersion Test (ASTM)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 547.00 \$ 547.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 72.00 \$ 5272.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sleve Analysis w/ Wash (ASTM D422). Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422). Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæge Limits of Soils (ASTM D427) Expansion Index of Soils (ASTM D427) Expansion Index of Soils (ASTM D2216) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Soils (CT 301)		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 137.00 149.00 238.00 222.00 256.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) PH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Teste Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Dispersion (ASTM D5572) Pinhole Dispersion Test (ASTM) Sand Density Calibration (ASTM D1566)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 547.00 \$ 547.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 72.00 \$ 5272.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equival ent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæel Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Molsture Density Test Tube Density Moisture Content of Soils (ASTM D2216)		256.00 272.00 233.00 148.00 90.00 244.00 340.00 137.00 149.00 238.00 222.00 256.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1533) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Disperstion (ASTM D5572) Pinhole Dispersion Test (ASTM) Sand Density Calibration (ASTM D1556)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 61.00 \$ 547.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 71.00 \$ 71.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/DASHTO) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sfeve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D554) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Treated Materials (CT 301))		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 137.00 149.00 238.00 222.00 256.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) PH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Teste Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Dispersion (ASTM D5572) Pinhole Dispersion Test (ASTM) Sand Density Calibration (ASTM D1566)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 61.00 \$ 547.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 71.00 \$ 71.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422). Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221). Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæge Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Molsture Density Test Tube Density Test Tube Density Test Tube Determination R-Value of Soils (CT 301) R-Value of Treated Materials (CT 301)) Consolidation Tests		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 137.00 149.00 238.00 222.00 256.00 47.00 47.00 47.00 47.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Teste Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM D1633) Cement Content Soil Cement (ASTM D1633) Other Sample Preparation Crumb Test Dispersion (ASTM D15572) Pinhole Dispersion Test (ASTM) Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression Unconfined Compression Unconfined Compression	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 61.00 \$ 547.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 71.00 \$ 71.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00 \$ 72.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/AASHTO) Caltrans Maximum Wet Density (CT 216) Check Point Particle Site Analysis Sieve Analysis (ASTM D422) Minus#200 Wash, Soil (ASTM D422) Minus#200 Wash, Soil (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D544) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits of Soils (ASTM D427) Expansion Index of Soils (ASTM D427) Expansion Index of Soils (ASTM D2216) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Treated Materials (CT 301)) Consolidation Tests Consolidation Tests Consolidation Tests		256.00 272.00 233.00 148.00 148.00 90.00 244.00 340.00 174.00 137.00 149.00 238.00 222.00 256.00 47.00 47.00 47.00 47.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Dispersion (ASTM D5572) Princie Dispersion Test (ASTM) Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression Unconfined Compression (ASTM D2166)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 142.00 \$ 61.00 \$ 647.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 85.00 \$ 272.00 \$ 102.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422). Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221). Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæge Limits of Soils (ASTM D427) Expansion Index of Soils (UBC No. 29) Molsture Density Test Tube Density Test Tube Density Test Tube Determination R-Value of Soils (CT 301) R-Value of Treated Materials (CT 301)) Consolidation Tests		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 137.00 149.00 238.00 222.00 256.00 47.00 47.00 47.00 47.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Teste Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM D1633) Cement Content Soil Cement (ASTM D1633) Other Sample Preparation Crumb Test Dispersion (ASTM D15572) Pinhole Dispersion Test (ASTM) Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression Unconfined Compression Unconfined Compression	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 153.00 \$ 71.00 \$ 647.00 \$ 818.00 \$ 261.00 \$ 71.00 \$ 85.00 \$ 272.00 \$ 102.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/DASHTO) Modified Proctor, 6" mold (ASTM/DASHTO) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis (ASTM D422) Minus #200 Wash, Soil (ASTM D422) Minus #200 Wash, Soil (ASTM D422) Double Hydrometer (ASTM D422) Double Hydrometer (ASTM D421) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkæge Limits of Soils (ASTM D427) Expansion Index of Soils (ASTM D427) Expansion Index of Soils (ASTM D2216) **Moisture Density Test** Tube Density Moisture Content of Soils (ASTM D2216) **R" Value Determination R-Value of Soils (CT 301) R-Value of Treated Materials (CT 301)) *Consolidation Tests* Consolidation *Extra Points (ASTM D2435)		256.00 272.00 233.00 148.00 148.00 90.00 244.00 340.00 174.00 137.00 149.00 238.00 222.00 256.00 47.00 47.00 47.00 47.00 47.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flex wall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Dispersion (ASTM D5572) Princie Dispersion Test (ASTM) Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression Unconfined Compression (ASTM D2166)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 547.00 \$ 547.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 71.00 \$ 37.00 \$ 37.00 \$ 37.00 \$ 37.00 \$ 37.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/AASHTO) Caltrans Maximum Wet Density (CT 216) Check Point Particle Site Analysis Sieve Analysis (ASTM D422) Minus#200 Wash, Soil (ASTM D422) Minus#200 Wash, Soil (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D544) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits of Soils (ASTM D427) Expansion Index of Soils (ASTM D427) Expansion Index of Soils (ASTM D2216) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Treated Materials (CT 301)) Consolidation Tests Consolidation Tests Consolidation Tests		256.00 272.00 233.00 148.00 185.00 90.00 244.00 340.00 174.00 137.00 222.00 256.00 47.00 432.00 478.00 455.00 61.00	CBR at 95% (ASTM D1883 or AASHTOT-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Oxidation Reduction of Soil Soil Cement Tests Freeze Thaw Abrasion (ASTM D550) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Cement Content Soil Cement (ASTM C1084) Other Sample Preparation Crumb Test Dispersion (ASTM D5572) Pinhole Dispersion Test (ASTM) Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression Unconfined Compression (ASTM D3080)	\$ 1,079.00 \$ 307.00 \$ 478.00 \$ 508.00 \$ 71.00 \$ 142.00 \$ 61.00 \$ 547.00 \$ 261.00 \$ 71.00 \$ 261.00 \$ 71.00 \$ 272.00 \$ 102.00 \$ 373.00 \$ 373

Programme and the second secon	MATERIALS LAB			_
AGGREGATES		CONCRETE		-
Sieve Analysis Coarse or Fine (ASTM C136)	\$ 90.00	Cement Content Concrete (ASTM C1084)	\$	410.00
Sieve Analysis w/ Fineness Modulus	\$ 97.00	Chemical Test (ASTM C150)		QUOTE
Minus 200 Wash, Aggregates (ASTM C117)	\$ 90.00	Set Times Cement-Vicat Needle (ASTM C191)	\$	340.00
Specific Gravity/Absorption (ASTM C127)	\$ 174.00	Specific Gravity of Hydraulic Cement (ASTM C191)	\$	164.00
Specific Gravity/Absorption (ASTM C128)	\$ 174.00	Lineal Shrinkage Set of 3 (ASTM C157)	\$	432.00
Organic Impurities (ASTM C40)	\$ 90.00	Compression Test of Concrete - 1 (ASTM C39)	\$	37.00
% Lumps/Friable Particles (ASTM C142)	\$ 88.00	Compression Test of Concrete - 4 (ASTM C39)	\$	148.00
% Flat and Elongated (ASTM D4791)	\$ 137.00	Compression Test of Care (ASTM C42)	\$	66.00
Fine Aggregate Angularity (AASHTO 304)	\$ 88.00	Preparation of Specimens, Sawing	\$	74.00
Moisture Content (ASTM D2216)	\$ 47.00	Compressive Strength of Shotcrete Panel	\$	347.00
Aggregate Wt., pcfCompacted (ASTM C29)	\$ 85.00	Proportion of Cement in Concrete (ASTM C85)	\$	380.00
Aggregate Wt., pcfLoose (ASTM C29)	\$ 71.00	Flexural Test Per Beam (ASTM C78)	\$	97.00
Abrasion by LA Rattler, Small Size (ASTM C131)	\$ 256.00	Splitting Tensile Strength of Concrete (ASTM C496)	\$	97.00
Abrasion by LA Rattler, Large Size (ASTM C131)	\$ 312.00	Unit Weight Lt Wt Concrete (ASTM C567)	\$	61.00
Sodium Sulfate Soundness, Per Sieve (ASTM C88)	\$ 119,00	"AZ" Test-Reinforced Concrete Pipe "Life Factor"	\$	85.00
마일 가는 이렇게 하면 그는 게이 살으면 되지 않아 가면 하면 하는 그 사이에 생각하는 그 때 하면 하는 그래요.	\$ 380.00		\$	37.00
Sodium Sulfate Soundness, Min. Charge (ASTM C88)		9 Pt Core Measurements, Each (ASTM C174)		
Relative Mortar Strength of Sand (ASTM C87)	\$ 465.00	Compressive Strength of Gunite	\$	66.00
Sand Equivalent (ASTM D2419 OR CT 217-I)	\$ 137.00	Concrete Trial Batches	- 4	QUOTE
Durability Index (CT 229)	\$ 272.00	Unit Weight & Abs Concrete (ASTM D642)	\$	137.00
Potential Reactivity of Aggregates	QUOTE	Accelerated Curing of Concrete (ASTM C684)	\$	272.00
Cleanness Value of Aggregate (CT 227)	\$ 196.00	Cylinder Molds (each)	\$	7.00
Hydrometer (ASTM D422 OR CT 205-€)	\$ 244.00	Storage of Concrete Cylinders for more than 45 Days	\$	63.00
% Crushed particles (CT 205)	\$ 180.00	RH Probe	\$	63,00
Lightweight Pieces (ASTM 123)	\$ 238.00	Calcium ChlorideKit	\$	42.00
		Mixing Water (pH, elec. conductance, chloride, sulfate)	\$	108.00
HOT MIX ASPHALT		Contact Soil (pH, elec. conductance, chloride, sulfate)	\$	130.00
Mix Design, H VEEM	\$ 3,373.00	-Curt to street a street out of the contract of		
Míx Design, Marshall	\$ 3,997.00	MASONRY		
JMF Mix Design, Superpave / Caltrans	\$ 9,739.00	Concrete Masonry Units Testing (ASTM C90)		
	\$ 5,644.00		\$	84.00
JMF Verification - HMA - Superpave / Caltrans JMF Production Startup - Superpave / Caltrans		Compression Test Pavers, Single	\$	180.00
	\$ 5,250.00	Compression Test Composit CMU Prism		2750000
RAP Material Testing -Additional Fee	\$ 683.00	Specific Gravity and Unit Weight	\$	125.00
Rubberized RHMA Material - Additional Fee	\$ 1,575.00	Moisture Content	\$	58.00
Hamburg Wheel Track (AASHTO T324)	\$ 2,862.00	Compression Test, Masonry Units (ASTM C140)	\$	113.00
Gyratory Compaction (AASHTOT312)	\$ 364.00	Absorption / Moisture Content (ASTM C140)	\$	113.00
AC Content by Centri fuge (ASTM D2172)	\$ 312.00	Linear Shrinkage (ASTM C426)	\$	438.00
AC / Ash Correction (ASTM D2172 / CT382)	\$ 312.00	Masonry Core Shear Test (Title 24)	\$	119.00
AC Content-Ignition (ASTM D6307 / CT382 / AASHTO T308)	\$ 244.00	Masonry Core Compression/Shear Test (Title 24)	\$	204.00
Superpave Ignition Oven Correction (AASHTO T308)	\$ 595.00	Compression Test Brick, Each (ASTM C67)	\$	85.00
Moisture Content of Asphalt (CT 370)	\$ 71.00	Absorption/Unit Wt. of Brick (ASTM C67)	\$	85.00
Gradation/Extraction Aggregate (ASTM D5444)	\$ 148.00	Compression Test Grout (Set of 3 or 4)	Š	130.00
Film Stripping	\$ 97.00	Compression Test Mortar (Set of 3 or 4)	\$	119.00
Compaction/Preparation of HMA Briquette (CT 304)	\$ 238.00	Complession resultions (actions of 4)	8	112.00
Stabilometer Value (CT 366 / AASHTO T246)	\$ 191.00	WELDING AND STRUCTURAL STEEL		
AC Core Specific Gravity (ASTM D2726)		Welder Qualification Testing		40.00
AC Core Specific Gravity - Paraffin Coated (AASHTOT275)	\$ 167.00	Welder / Procedure Welder Qualification Testing	-4	QUOTE
AC Max Density Rice Method (ASTM D2041)	\$ 272.00	Face Bend of Steel	\$	66.00
Tensile Strength Ratio (AASHTOT283)	\$ 1,193.00	Root Bend of Weld Coupon	\$	66.00
Moisture Vapor Susceptibility (CT 307)	\$ 222.00	Side Bend of Weld Coupon	\$	66.00
AC Surface Abrasion (CT 360)	\$ 545.00	Tensile Test of Steel Coupon	\$	90.00
Index Retained Strength (ASTM D1074-D1075)	\$ 488.00	Bend Test of Steel Coupon	\$	78.00
ACH veem Maximum Density (CT 375)	\$ 488.00	Machining Charges (Per Coupon)		QUOTE
Marshall Stability and Flow (ASTM D6927)	\$ 272.00	Brinell Hardness of Steel (ASTM E10)	\$	108.00
Calculated AC Maximum Density (CT 367)	\$ 108.00	Rockwell Hardness of Steel (ASTM E18)	\$	108.00
Marshall Maximum Density, 50 Blows (ASTM D6926)	\$ 317.00	Bolt UltimateLoad	\$	153.00
Examination of AC Cores	\$ 37.00	Bolt Hardness (set of 3)	\$	108.00
Thickness Determination of AC Cores	\$ 24.00	Nut Hardness (set of 3)	\$	108.00
AC Tensile-Strength Premixed ASTM D4867	\$ 705.00	Washer Hardness (set of 3	Ś	108.00
ACTensile-Strength Lab Mixed ASTM D4867	\$ 830.00	Proof Loading, bolt or nut	\$	153.00
	<i>x</i> 202.02			200,02
REINFORCING STEEL	6 464.65	FIREDROOFING		
Tensile & Bend of Rebar, #3 - #8	\$ 161.00	FIREPROOFING	40	Commi
Tensile & Bend of Rebar, #9 - #11	\$ 161.00	Cohesion/Adhesion Fireproofing Materials	\$	137.00
Bend Test of Rebar	\$ 66.00	Dry Density Fireproofing (ASTM E605)	\$	103.00
Slip and Tensile Rebar Couplers (CT 670)	\$ 233,00			
Tension Test of Welded Wire Fabric	QUOTE			
Bend Test of Welded Wire Fabric	QUOTE			
Weld Shear Test, Welded Wire Fabric	QUOTE			
PT Cable Tensile and Elongation (ASTM A416 or A421)	\$ 295,00			



RATE SCHEDULE

Structural Engineer Drafter \$ 150 per hour \$100 per hour

Note: These rates will stay the same for the entire duration of the contract



January 27, 2022

HydroScience Engineers, Inc.

10569 Old Placerville Road Sacramento, CA 95827 T: 916.364.1490 F: 916.364.1491

Chuck Weir General Manager Livermore-Amador Valley Water Management Agency 7051 Dublin Boulevard Dublin, CA 94568

Subject: Amendment Request #1 - Engineering Services for San Leandro Sample Station Improvements Project

Dear Chuck:

HydroScience is providing engineering design services for the subject project. The purpose of this letter is to request a project budget amendment to address additional work tasks required to complete the preliminary design and incorporate added requested features into the upgrades as part of the detailed design. Also included are additional hours for construction phase services to cover the expanded facility upgrade scope.

The following describes each of the additional scope items:

Vault Lighting: DSRSD staff recently requested that lighting be added to three pipeline vaults: SLSS flowmeter, EBDA flowmeter, and EBDA control valve. HydroScience will:

- Select and specify a light fixture and light switch to be installed near the lid.
- Prepare a specification and detail.
- EBDA vaults: Design conduit and power cable from Panel PP-2 (in landscaping near the EBDA vaults) to the EBDA vaults. Indicate required landscape restoration.
- SLSS vault: Design conduit and power cable from 120v panel spare circuits in SLSS Building to vault. Create details for building wall, trenching and pavement restoration in the site, and penetration through decorative wall. Indicate required landscape restoration. Coordinate work with DSRSD.

Vault Level Sensors: DSRSD staff requested that level switches be added to the three vaults to detect rising water levels that risk flood damage to equipment. HydroScience will:

- Select and specify level switches.
- Prepare a specification and detail.
- EBDA vaults: Design conduit and signal cable from Panel IP-1 (at SLSS) to vaults, assuming the spare 2" conduit indicated on the as-built plans is still available for use to bring cable to existing pullbox near the vaults (design of new conduit run along Lewelling not included). Indicate required landscape restoration (between nearest PB and vaults).
- SLSS vault: Design conduit and signal cable from control panel in SLSS Building to vault.
 Create details for building wall, trenching and pavement restoration in the site, and
 penetration through decorative wall. Indicate required landscape restoration. Coordinate
 work with DSRSD.

- Include alarming in PLC and SCADA control strategy.
- As an alternative to routing conduit, specify the use of manhole cellular level switch package preferred by DSRSD.

SLSS Building Exhaust Fans: HydroScience will:

• Indicate replacement of 2 existing fans on the Drawings and prepare a drawing note specification.

Flap Gate Alternative (weighted check valve): LAVWMA desires to have the SLSS outlet pipe remain full when the station is not in operation, to minimize air spaces in the pipe that could contain gasses that could corrode the pipe crown. To do this, backpressure at or near the San Lorenzo Creek discharge point will need to be created sufficient to resist the head of a full pipe when there is no flow. HydroScience has been researching duckbill valve options but none provide a sufficiently high cracking pressure to achieve the desired outcome. Our contractual scope of services covered installation of a short pipe extension with elbow to raise the existing flap gate to a higher elevation (to clear the zone of mud accumulation) or replacement using a duckbill style valve. HydroScience will:

- Complete research of duckbill check valve options and either select one or eliminate it from further consideration.
- Evaluate and design a proposed alternative: to install a weighted check valve in the existing blowoff valve vault located approximately 100' upstream.

Modbus RTU Device Communication: DSRSD requested the use of Modbus RTU protocol to communicate with the EBDA motorized control valve. Our contractual scope of services assumed existing or identical replacement cabling and communication protocol would be used. HydroScience will:

- Incorporate ModBus RTU communications into the new SLSS modulating valve design, replacement EBDA valve, and existing control panel.
- Design conduit and wire to the PP-2 panel for power to the remote I/O panel or incorporate power into the combined replacement panel design.
- Design conduit and wire from new remote I/O panel (see below) to valve vault.
- Route new conduit to avoid existing landscape and irrigation. Coordinate with City. Indicate required landscape restoration.

New Remote I/O Panel at EBDA Vaults: HydroScience will:

- Specify and design a remote I/O panel to be located near the existing PP-2 panel. Optionally design a replacement power/control panel for PP-2.
- Identify a location near the vault that is acceptable to LAVWMA, DSRSD, and City of San Leandro. Scope assumes it would be near the site of PP-2.
- Develop required panel drawings and specifications.

Additional City of San Leandro Coordination: The work around the EBDA vaults was originally limited to excavation and modification at the vaults, affecting the adjacent walking path. The work will now include conduits trenched from the existing power panel location and the installation of a new power panel. The work area now extends into the public garden area. This item provides additional time to coordinate with the City and address comments.



Enhanced Chemical Dosing Control: Our contractual scope of services assumed the existing thiosulfate control logic (to initiate thiosulfate pumping upon SLSS flow at a single conservative chemical flow rate) would be retained, with the addition of anticipating logic for SLSS pipe fill time. Based on recent permit changes, LAVWMA desires to implement dosing rate control logic that considers upstream residual, maximum permitted residual in the discharge, and trimming downstream of injection. HydroScience will:

- Develop control strategies for dose control based on upstream residual above max setpoint, swapping sample valve positions to sample downstream of injection point, and trim control logic during dechlorination.
- Develop these strategies in consideration of composite sampler operations.
- Coordinate with DSRSD on implementation of speed control to the existing thiosulfate metering pumps. Assumes DSRSD verifies that speed control wiring and/or spare conduit from IP-1 to pumps is available.

Sample System Improvements: Our contractual scope of services assumed two new chlorine analyzers would be installed with a potable water recirculation system to keep the probes wet during downtime. Based on recent LAVWMA and DSRSD feedback, HydroScience will:

- Incorporate ability to manually dose bleach into an open-top water reservoir with potable water automatic fill float and modulating diaphragm control valve and draw it through the sample pumps to remove accumulation in the piping.
- Change to one installed analyzer instead of two.
- Incorporate automated sample source switching using solenoid valves (sources are pre and post dechlorination).
- Coordinate flushing and sample source selection with operation of existing composite sampler (configuration information to be provided by DSRSD).

Flap Gate Flow Test Mode: DSRSD requested a special mode be added to the PLC/SCADA programming for SLSS flap gate flow tests. HydroScience will develop control narratives addressing the following:

- Limit the number of Export Pumps running at one time.
- Possibly modify the EBDA valve minimum position.
- Preemptively open the new SLSS control valve.
- Changes to sample system operation.
- Details to be coordinated with LAVWMA and DSRSD.

The proposed budgetary amendment to address this additional scope is \$44,800. Attachment A provides a detailed breakdown of the proposed fee and hours to address the above tasks. It includes allowances for additional bid support to address contractor questions regarding the added scope items, additional Engineering Services During Construction (ESDC) for associated submittals and RFIs, and additional Construction Management and Inspection (CM/CI) to address the added scope items, a longer construction duration, and additional startup and testing items.



We appreciate your consideration of this request. Please contact me at bslenter@hydroscience.com or (916) 273-6035 with any questions.

Sincerely yours,

HYDROSCIENCE ENGINEERS

Bill Slenter, PE Project Manager

Attachment A: Amendment Fee Detail

ATTACHMENT A



Amendment Request #1

LAVWMA Engineering Services for San Leandro Sample Station Improvements Project

January 27, 2022

LAV WWA Engineering Services for San Leanuro Sample Stat	ion impr														- Ou	liuary 27, 2022
Task Description	Curtis Lam PIC & QA/QC	Bill Slenter Project Manager	Eric Jones Project Engineer	Kyle Fooks Design Support & CM/CI	Bya Founas Design Support	Thinh Le Lead Electrical	Mike Marandi, Elec QA/QC	Drafting	HSE Hours	HSE Fee	Travel and Repro	VE Solutions Structural	BSK Materials Testing	Direct Charges Markup	Expense Subtotal with Markup	Total Fee
	Princ	Princ	E-VI	E-II	E-II	E-VI	E-VIII	CAD Mg	r							
	\$255	\$255	\$215	\$175	\$175	\$215	\$235	\$115	•							
Amendment #1 Items																\$44,800
Vault lighting improvements			1			12	1		14	\$3,030				\$0	\$0	\$3,030
Vault level sensors design			1			12	1		14	\$3,030				\$0	\$0	\$3,030
SLSS Building exhaust fan replacement					2	1			3	\$565				\$0	\$0	\$565
Weighted check valve design/eval full pipe objective		1	6		10			4	21	\$3,755				\$0	\$0	\$3,755
Modbus RTU communcation			2			12	1	2	17	\$3,475				\$0	\$0	\$3,475
New panel at EBDA vaults		1	2		3	10	1		17	\$3,595				\$0	\$0	\$3,595
Additional City of San Leandro Coordination		1	1		6				8	\$1,520				\$0	\$0	\$1,520
Enhanced Chemical Dosing Control		1	8		2	6			17	\$3,615				\$0	\$0	\$3,615
Sample System Improvements		1	3			8		4	16	\$3,080				\$0	\$0	\$3,080
Flap Gate Flow Test Mode			3			3			6	\$1,290				\$0	\$0	\$1,290
Additional bid support for above items			1		2	3			6	\$1,210				\$0	\$0	\$1,210
Additional ESDC for above items		2	4		4	16			26	\$5,510				\$0	\$0	\$5,510
Additional CM/Inspection/Startup Spt for above items		2		40					42	\$7,510	\$500		\$1,000	\$75	\$1,575	\$9,085
Additional Project Management	2	6							8	\$2,040				\$0	\$0	\$2,040
TOTAL	2	15	32	40	29	83	4	10	215	\$43,225	\$500	\$0	\$1,000	\$75	\$1,575	\$44,800

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

ITEM NO. <u>12</u> PROPOSED SOUTH LIVERMORE SEWER EXPANSION PROJECT INTO U INCORPORATED AREAS

Action Requested

The Board should review this information and determine what concerns or questions should be addressed by the City of Livermore prior to considering a formal request to approve the expansion project.

Background

LAVWMA's JPA specifies when a member agency may provide service to unincorporated areas. Section 14.2.4 provides:

"In the interest of protecting public health and safety, a Member Agency may also provide wastewater treatment and disposal service to unincorporated properties adjoining a city. If the cumulative amount of proposed service in any one contiguous unincorporated geographic area exceeds ten (10) residential connections or the equivalent, service in excess of ten connections will require unanimous approval of the LAVWMA Board."

The LAVWMA Board adopted an administrative policy under Resolution 17-01 clarifying that the Board may approve immediately requested service connections to a particular contiguous unincorporated property and may also specify the number of connections that are authorized to use that same infrastructure before additional LAVWMA approval must be sought. This approval may also be limited by a sunset clause that specifies that preapproval of the unincorporated area service connections expires on a specified date.

Pursuant to Section 14.2.5, "No Member Agency shall serve any other area, including any unincorporated area of Alameda County which is south of Interstate 580...without the unanimous vote of the LAVWMA Board."

Summary

As described in **Attachment No. 12.a**, letter from Scott Lamphier, City of Livermore Director of Public Works, the City is considering a sewer expansion project into unincorporated areas to serve industrial and residential parcels currently served by septic tanks. Most of the connections to existing facilities would be winery and tasting room related businesses, which often include homes attached to the winery. The total number of possible connections is not known at this time. The project must go before the Livermore voters in 2022 prior to any official request to the LAVWMA Board for approval pursuant to the Joint Powers Agreement and Resolution 17-01, **Attachment No. 12.b**.

Agenda Explanation
Livermore-Amador Valley
Water Management Agency
Board of Directors
February 16, 2022

The projected flows from this project are 0.12 MGD dry weather and 0.65 MGD during wet weather. Neither of those flows would create a significant issue for LAVWMA operations. The actual flow will depend on the number of existing facilities that sign as well as the number of new connections. Existing connections will have to pay a fee to connect to the system. It is also not known at this time the overall schedule for the project or the ultimate number of connections that may be involved.

The Board should consider what concerns of questions should be addressed as the project is finalized for consideration by the voters. Based on Resolution 17-01, the Board might also want to consider what number of total connections would be acceptable for preapproval once the project is presented for formal consideration. Some of the questions that might be included are:

- 1. There is an intent for septic systems to connect to the new system. What are the water quality benefits of eliminating septic systems in the proposed area?
- 2. Since there will be significant pipeline installation, what is the possibility of installing purple pipe for water recycling at the same time?
- 3. What is the schedule for pipeline construction as well as service connections?
- 4. What is the total number of connections that this project will ultimately support?
- 5. Will the City be requesting preapproval for the number of connections identified in question number 4?
- 6. How does this project protect against significant development to unincorporated areas?
- 7. Other questions.

The questions and concerns that are developed by the Board can be incorporated into a letter response to the City's letter. Those questions and perhaps others from Livermore citizens should be addressed prior to the project going before the voters in November 2022.

Recommendation

There is no specific action requested by the Board at this time. The Board should review the list of possible questions, consider others, and direct the General Manager to respond to the Livermore letter.

Attachments

- 12.a Letter from Livermore Director of Public works
- 12.b Resolution No. 17-01



February 3, 2022

Mr. Chuck Weir General Manager Livermore-Amador Valley Water Management Agency 7051 Dublin Boulevard Dublin, CA 94568

RE: South Livermore Sewer Expansion Project

Mr. Weir:

In accordance with the JPA between the Livermore-Amador Valley Water Management Agency (AGENCY) and the City of Livermore (CITY,) the CITY is notifying your agency of plans for a potential sewer expansion project into the unincorporated area south and east of the CITY. Specifically, Paragraph 14 of the JPA, as well as Resolution 17-01 adopted by your AGENCY in 2017, require the CITY to notify your AGENCY of any planned or potential sewer service projects extending into the unincorporated area outside of the city of Livermore.

This letter serves to notify your AGENCY of plans for a South Livermore Sewer Expansion Project which is scheduled to appear before CITY voters in November 2022. The project, if approved, includes an extended sewer line south and east of the CITY to serve industrial and residential parcels currently serviced by septic systems.

Details of the proposed system are presented in Attachment A to this letter. A map of the potential alignments is shown in Attachment B. As shown in Attachment A, the new sewer line would be an approximately 5.8 mile extension line consisting of 10-inch and 8-inch sized pipe. Maximum additional flows due to this expansion are anticipated to be between 0.12MGD (normal conditions) up to 0.65MGD (wet winter conditions.)

The CITY is formally requesting approval for this expansion project from LAVWMA in order to proceed with planning and construction of the facility. When required, the CITY will prepare a resolution to CITY Council for review and approval and transmit that to

Mr. Chuck Weir February 3, 2022 Page 2 of 2

your AGENCY. The project would begin after a successful vote by CITY voters in November of 2022 and would be constructed in phases thereafter.

If you have any question, or would like additional information, please don't hesitate to contact me at (925) 960-8003 or smlanphier@cityoflivermore.net.

Sincerely,

Scott M. Lanphier, PE, CFM

Director of Public Works

City of Livermore

ATTACHMENT A

South Livermore Sewer Expansion Project Details
Page 1 of 3

1) What is the size and length of the proposed extension?

The ultimate extension could be around 30,800 LF (5.8 miles). Consisting of 16,800 LF of 10-inch and 14,000 LF of 8-inch sewer.

The first phase will most likely be 19,300 LF (3.6 miles) and consist of 16,600 LF of 10-inch and 2,700 LF of 8-inch sewer.

2) What is the proposed alignment?

First phase will likely connect to existing system at East Ave/Buena Vista, extend up Buena Vista to Tesla, up Tesla to Greenville, and up Greenville to the Poppy Ridge entrance.

The ultimate expansion could include a sewer from Tesla and Buena Vista down to the current end of the system on South Livermore; extending from Tesla and Greenville up Tesla to the east to include additional wineries, and extending up Greenville to the south to include additional wineries.

3) How many connections are expected initially (within year one)?

Not sure how many customers will connect to the first phase of the extension. Parcels that connect will need to pay connection fees and user fees. Nobody has specifically indicated that they will connect. Parcels will likely connect if they can't obtain new permits for septic systems or if they want to increase the value of their parcel.

[Get with Joel for total connections. Based on parcels?

ATTACHMENT A South Livermore Sewer Expansion Project Details Page 2 of 3

Mostly ag type, winery, industrial types.

4) How many connections are expected ultimately (buildout)?

The ultimate expansion could provide service to around 140 existing customers (including 22 existing wineries).

The ultimate expansion could also provide service to 17 future customers (3 B&B's, 4 wineries/tasting rooms, 7 retail, 1 resort/hotel, 2 restaurants). These new customers will connect to the extended sewer. Not sure what the schedule is for these new projects. A guess would be that they will build and connect between 2025 and 2035.

Most of these potential existing connections and all of the new connections are located along the potential first phase.

5) What level of additional effluent flow is expected initially?

Similar to the answer for question 3, not sure how many customers will initially connect.

6) What level of additional effluent flow is expected ultimately?

About 33,400 gallons per day is anticipated from crushing operations during the crushing season from existing wineries. Total average daily flow from all existing uses is estimated at 80.000 gallons per day during crush season. Total flow from the region is expected to increase to around 120,000 gallons per day at buildout. During rain events instantaneous

ATTACHMENT A

South Livermore Sewer Expansion Project Details
Page 3 of 3

peak flows from the study area may increase to around 650,000 gallons per day.

7) When would the initial flows be expected to begin?

Here is the current schedule:

2022

Preliminary design and CEQA

Nov 2022

Vote on ballot measure

2023

Final Design and Agency Approvals

2024-Jul 2025

Construction of First Phase

Aug 2025

Potential first connections

Out Years

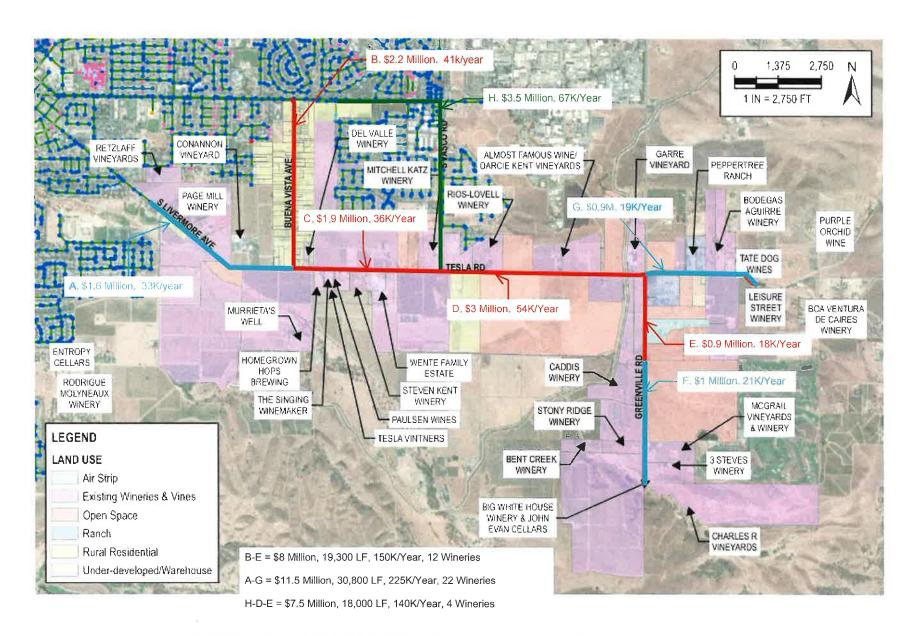
Potential additional expansion

8) When would the ultimate flows be expected to begin?

Hard to know at this point, maybe the ultimate expansion will be completed by 2040.

9) What is the current status of the proposed project? (i.e. Env, Design, ROW, CON, etc)

Please see schedule provided as answer to Question 7.



POTENTIAL SOUTH LIVERMORE SEWER EXPANSION ALIGNMENTS, CAPITAL COSTS, AND O&M AND REPLACEMENT COSTS/YEAR

Livermore-Amador Valley Water Management Agency

RESOLUTION NO. 17-01

A RESOLUTION OF THE LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY APPROVING ADMINISTRATIVE POLICY 2017-01 REGARDING UNINCORPORATED AREA SERVICE EXTENSIONS

WHEREAS, the Livermore-Amador Valley Water Management Agency ("LAVWMA") is a joint powers agency comprised of the cities of Livermore and Pleasanton and the Dublin San Ramon Services District;

WHEREAS, the meaning and application of Section 14.2.4 of LAVWMA's Amended and Restated Joint Exercise of Powers Agreement (the "Adjacent Service Clause") is ambiguous;

WHEREAS, LAVWMA desires to clarify the meaning of the Adjacent Service Clause, by adopting an Administrative Policy;

NOW, THEREFORE, BE IT RESOLVED by the Livermore-Amador Valley Water Management Agency that Administrative Policy 2017-01, which is the attached hereto as <u>Exhibit A</u> and incorporated by this reference, is hereby adopted and shall be effective immediately.

DULY AND REGULARLY ADOPTED by LAVWMA's Board of Directors this 29th day of March, 2017 by the following vote:

AYES: Directors Marchand, Misheloff, Brown, Duarte, Olson and Woerner

NOES: 0 ABSENT: 0

Bob Woerner, Vice Chair

Charles V. Weir, General Manager

LAVWMA ADMINISTRATIVE POLICY NO. 2017-01 REGARDING UNINCORPORATED AREA SERVICE EXTENSIONS

I. Applicability

This policy provides procedural and interpretive guidance on the application of the following portion of the Livermore Amador Valley Water Management Agency's ("LAVWMA") Amended and Restated Joint Exercise of Powers Agreement ("Agreement"):

- "14.1 Service to Incorporated Areas. Livermore, Pleasanton and DSRSD may provide wastewater service, including collection, conveyance, treatment and disposal of raw wastewater, from only those areas which now or in the future are incorporated within the city limits of Livermore, Pleasanton, and Dublin respectively. DSRSD may provide such service to the area within the city limits of San Ramon that DSRSD serves as of the date of this Agreement and any area within the specific plan for West-side San Ramon dated November 1989 that is subsequently incorporated into the City of San Ramon, and Livermore may continue to provide such service to the Ruby Hill Subdivision in the City of Pleasanton.
- "14.2 <u>Service to Unincorporated Areas</u>. In addition to providing service to the incorporated areas described in paragraph 14.1, Member Agencies may also provide service as follows:
 - "14.2.4 In the interest of protecting public health and safety, a Member Agency may also provide wastewater treatment and disposal service to unincorporated properties adjoining a city. If the cumulative amount of proposed service in any one contiguous unincorporated geographic area exceeds ten (10) residential connections or the equivalent, service in excess of ten connections will require unanimous approval of the LAVWMA Board."

II. Issue

Does Section 14.2.4 (the "Adjacent Service Clause"), which requires unanimous Board approval for a Member Agency to provide wastewater service more than 10 residential connections in any particular contiguous unincorporated area, apply when wastewater connections are made in one area over a multi-year period that cumulatively exceed 10 residential connections, but individually do not?

III. Interpretation

Yes. Using a broad interpretation of the Adjacent Services Clause, unanimous LAVWMA approval is triggered anytime a contiguous unincorporated area has or would have more than 10 connections and additional connections are requested, even if 10 or less individual connections are being proposed at the time. This interpretation is the most consistent with the overarching intent of the Agreement, which is to limit service outside of the Member Agency's boundaries.

When the Board is considering an adjacent service application, it may pre-approve future connections that could be served by the existing or proposed infrastructure. Doing so could reduce the need for multiple applications for LAVWMA approval and provide for more efficiency and certainty in the planning process. To that end, the Board may approve the immediately requested new service connection(s) to a particular contiguous unincorporated area and may also specify the number of other future connections that are authorized to use that same infrastructure before additional LAVWMA approval must be sought. This approval could be limited by a sunset clause that specifies that preapproval of the unincorporated area service connections expires on a specified date.

IV. Conclusion

This Administrative Policy specifies how the Adjacent Service Clause should be interpreted and applied to avoid possible unregulated piecemealing of service extensions while also providing efficiency for subsequent extensions.

** END OF POLICY **

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

ITEM NO. <u>13</u> UPDATE AND RESPONSE TO VARIOUS LEGAL AND LEGISLATIVE ISSUES

Action Requested

None at this time.

Summary

Attached for the Board's information are the following items **Attachment No. 13.a**, California Association of Sanitation Agencies (CASA) Regulatory Update for January and February 2022 and **Attachment No. 13.b**, Bay Area Clean Water Agencies (BACWA) Bulletin dated February 2, 2022. Both documents provide current information on the legal, legislative, and regulatory fronts that are of interest to wastewater treatment agencies.

The CASA document includes updates on a number of regulatory and legislative issues. The program that allows water utilities to address fee arrearages is available through April 1, 2022. A total of \$600 million is available to cover unpaid bills. There are items that discuss the Ocean Protection Council statewide microplastics strategy, including AB1724 which would require new washing machines to contain a microplastics filter beginning in 2024. Another item notes that the State Water Board has \$650 million program for wastewater projects, with priority given to septic to sewer conversions.

The BACWA document is issued on a regular basis and new information is shown in purple highlighting. The blanket permit amendment for chlorine residual and oil and grease limits should be approved by EPA at any time and will likely become effective in March 2022. This amendment will allow higher chlorine residuals for Bay dischargers including East Bay Dischargers Authority. This will save on dechlorination costs for sodium bisulfite. The PFAS regional study is continuing. Phase 2 will begin this Spring.

One important item is the Sanitary Sewer System General Order for Waste Discharge Requirement (SSO-WDR). Refer to page 9 of the BACWA report. A new version was recently issued that appears to address many concerns raised by BACWA and CASA, but it still needs to be thoroughly reviewed.

AB 602 requires local agencies to consider additional factors and information when preparing and adopting development impact nexus fee studies. Under the revised laws, the nexus study must identify levels of service, identify proposed new levels and include an explanation of why the new level of service is necessary. Studies must be adopted at a public hearing with 30 days of notice. Studies must be updated every eight years, with fee schedules posted on the website.

Agenda Explanation Livermore-Amador Valley Water Management Agency Board of Directors February 16, 2022

Recommendation

There is no recommendation at this time.

Attachments

13.a CASA Regulatory Update for February 2022

13.b BACWA Bulletin for February 2022

chuckweir@sbcglobal.net

From: Jared Voskuhl <JVoskuhl@casaweb.org>
Sent: Monday, February 7, 2022 1:02 PM

Subject: [Regulatory] CASA Regulatory Update - February 2022



Good Afternoon,

Please find below updates from January and for February. Our next Regulatory Workgroup meetings will be held on February 17, and Karen Mogus, Deputy Director of the State Water Board's Water Quality Division, will join us for a portion of the water committee meeting to share about Board priorities in 2022 including the new utility arrearages program, the new draft of the SSS WDR, the recently adopted integrated report and 303(d) list, and the biostimulatory substances & biological integrity policy development. Please let us know if you have any problems accessing the linked resources.

Thank you,
The RWG Team

WATER

Utility Arrearages Payment Program Application Portal Open until 4/1/22

On January 19, the State Water Resources Control Board (State Water Board/SWB) adopted the wastewater utility arrearages payment program guidelines (arrearages program). Previously CASA had provided comments on the draft guidelines on January 5 and testified during the workshop on January 4. The arrearages program will provide funding relief to wastewater agencies and wastewater billing entities for unpaid residential and commercial customer debt accrued during the COVID-19 pandemic for the period between March 4, 2020 and June 15, 2021. The application period runs between February 1 and April 1, with disbursements beginning March 1. A two-page fact sheet is linked about the program's eligibility, and further information is available on the program's webpage. If you do not bill customers directly, please pass this information onto your billing entity. Technical assistance is available for anyone who needs support to complete their application, so if you have general or specific questions, do not hesitate to reach out to the program's staff.

SSS WDR Draft Released by SWB

On January 31, the State Water Board released the official draft of the re-issued sanitary sewer system waste discharge requirements (SSS WDR). Per the formal notice, the SWB will host public workshops on February 23 and 24, there will be a Board workshop on March 15, and formal comments will be due on April 8, 2022. Previously in February 2021, the Board released an informal staff draft upon which we provided comments and met with SWB staff to discuss issues with implementation. CASA is planning to hold multiple internal meetings to review the new draft to discuss its impacts and to develop our formal remarks, so if you're interested in being involved, reach out to Jared Voskuhl for updates and Cheryl Mackelvie, CASA's Executive Assistant, to be added to our Collection Systems Workgroup listsery.

CASA Submits Comments to OPC on Statewide Microplastic Strategy

On January 21, <u>CASA submitted comments</u> to the Ocean Protection Council (OPC) on their <u>draft Statewide Microplastics Strategy</u>, which had been released on December 21, 2021. The Strategy is expected to be adopted at <u>the OPC's February 23 meeting</u>. If you have questions or feedback, please contact <u>Jared Voskuhl</u>.

CASA Submits Comments to CFGC on Southern California Steelhead Petition

On February 3, <u>CASA submitted comments</u> to the California Fish and Game Commission (Commission) on <u>the petition to list the Southern California steelhead</u> under the California Endangered Species Act. The Commission will take up their petition and <u>the Department of Fish</u> <u>& Wildlife's evaluation</u> at <u>the Commission's February 17 meeting</u>. Please reach out to <u>Jared Voskuhl</u> with remarks or questions.

SWB Adopts 2020-22 303(d) List for Regions 3, 5, and 9

On January 19, the State Water Board adopted the 2020-22 integrated report and 303(d) list, adding over 1,000 new listings in Region 3 (Central Coast), Region 5 (Central Valley), and Region 9 (San Diego). Numerous stakeholders from the regulated community testified <u>during the four-hour adoption hearing</u>, and the Board added three recitals to the adopting resolution to assuage concerns.

The State Water Board is currently reviewing the data submissions from their 2020 solicitation from Region 2 (San Francisco), Region 4 (Los Angeles), Region 5 (Central Valley – Sacramento River), and Region 8 (Santa Ana) for the 2024 report, and the public stakeholder process for that list cycle is estimated to conclude in July 2023. More info about the upcoming listing cycle is available on the SWB's 2024 program page. Please reach out Jared Voskuhl if you have feedback or inquiries.

Water Resiliency Portfolio - Status & Progress Report

On January 12, the Department of Water Resources (DWR) released a <u>Progress Report</u> for <u>the 2020 Water Resilience Portfolio</u> (Portfolio) on which <u>CASA had submitted comments</u> a couple of years ago. The Progress Report defines four stages of completion and ranks each Action in the Portfolio accordingly. As exhibited in the Progress Report, California has made considerable progress to ensure a resilient future for our water, and CASA will continue to support DWR so the remainder of the Portfolio may be achieved. Reach out to <u>Jared Voskuhl</u> with feedback on the Progress Report.

California Water Action Plan 2023 Update

Later this winter, DWR will convene a Policy Advisory Committee (PAC) to develop and update the 2023 California Water Plan (Plan). First introduced in 1957, the Plan is the state's strategic map for sustainably managing and developing water resources for current and future generations. It is updated every five years, and the next one is due in 2023. The PAC will hold a kickoff meeting in the coming weeks, and it will cover the following topics: an overview of the Plan Update, the role and charge of the PAC, presentations on the three main themes of the 2023 Plan update: watershed resilience, climate change, and equity, and discussion of how those themes overlap with PAC member priorities and initiatives. CASA's <u>Jared Voskuhl</u> will serve on the PAC, so please reach out to him with questions or feedback.

Cerio Study SAG Meeting on 2/23

On February 23, the Stakeholder Advisory Group (SAG) for the SWB's study of variability in test results for aquatic toxicity using ceriodaphnia dubia will hold their first meeting of 2022. They are planning to discuss the historical analyses that SCCWRP performed during their first phase of this project in 2021. CASA plans to monitor the meeting, so please reach out to Jared Voskuhl with questions.

CWSRF Comments on Amending 2021-22 IUP

On January 7, the State Water Board released <u>an amended draft of the previously adopted 2021-22 intended use plan (IUP)</u> in order to administer the legislature's wastewater allocations from the 2021 state budget. The SWB held a workshop on January 20, and comments were due earlier today. The <u>SWB plans to adopt the amended materials on March 15</u>, and we expect the 2022-23 IUP will be released in April. Please contact Jared Voskuhl if you have guestions.

\$650 WW Infrastructure Funding – Septic to Sewer

Extending from the prior item, the State Water Board will prioritize the wastewater infrastructure funding for septic to sewer projects, as <u>shown in this fact sheet</u>. CASA has been actively working with SWB staff and our members to assist in developing a statewide needs assessment, and many thanks are due to Inland Empire Utilities Agency, Ross Valley Sanitary District, the City of Oakland, the City of Richmond, Coachella Valley Water District, and Woodward and Curran, for all of their assistance and support to provide their experiences towards comparable local efforts, and we anticipate reaching back out later this month to request your submission of service boundaries in order to assist the SWB with identifying eligible projects. Please contact <u>Jared Voskuhl</u> if you would like to discuss your participation in this project further.

Volumetric Annual Reports for 2021 due 4/30.

On January 10, the State Water Board opened the Geotracker portal for the 2021 volumetric annual report (VAR). Wastewater and recycled water permittees are required to submit their 2021 VAR report module in GeoTracker by April 30, 2022. For background, the SWB's Water Quality Control Policy for Recycled Water requires wastewater and recycled water permittees (including wastewater permittees that do not produce any recycled water) to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. The 2021 VAR is the same format as the previous year and requires the entry of volumes in acre-feet per month for influent, effluent, and if applicable, recycled water use. Volumetric conversion factors can be found in the SWB's Help Guide. Additional information, including the Help Guide and Webinar training for submitting the VAR, and data and

infographics from 2019 and 2020 can be found on the VAR <u>webpage</u>. For assistance with submitting the 2021 VAR or any questions regarding this message, please <u>email SWB staff</u>.

CEC's Panel in Aquatic Systems

On February 10, the SWB and OPC will reconvene the 2020 Constituents of Emerging Concern (CEC) Science Advisory Panel for Aquatic Ecosystems (CEC Aquatic Ecosystems Panel), which is funded by a grant to the Southern California Coastal Water Research Project (SCCWRP). The CEC Aquatic Ecosystems Panel will assess the current state of scientific knowledge on the risks of CECs impacting human health and the environment in freshwater, coastal, and marine ecosystems of the State and will update their 2012 recommendations. The CEC Aquatic Ecosystems Panel will meet in February to begin drafting their recommendations and will report-out on their progress to the public via a Zoom webinar hosted by SCCWRP. You may register here, for additional information, visit the Southern California Coastal Water Research Project website here, and if you have questions contact Jared Voskuhl.

Comments needed on ELAP Guide to Validate Experimental Lab Methods for Regulatory Uses Later this month, the subgroup of the Technical Advisory Committee (ELTAC) for the State Water Board's Environmental Laboratory Accreditation Program (ELAP) is expected to meet and finalize their guide and checklist to validate new experimental methods so they be used for regulatory purposes, despite them not being federally approved. You may still review the guide document and its checklist, so please send Jared Voskuhl your feedback via track changes at your earliest convenience.

Legislative Bites - CECs, Washing Machine MP Filters, PFAS

For those with an eye on the regulatory-related legislative proposals inside the capitol, here are a couple of highlights from the first month of the 2022 legislative session: SB 230 (Portantino) was amended and is moving again, which would establish a formal program at the SWB for CECs in drinking water; related to the microplastics strategy, AB 1724 (Stone), was introduced and would require new washing machines sold in the state to contain a microplastic filter beginning in 2024. Beyond these, CASA's sponsored legislation on PFAS disclosure is expected to be introduced in the coming weeks, and we are pleased to partner with Clean Water Action and the Environmental Working Group on this initiative as co-sponsors. Reach out to Jessica Gauger, CASA's Director of Legislative Advocacy and Public Affairs, with any questions or feedback on these!

SWB Agenda Roundup

Here are the recent State Water Board agendas for their meetings on <u>January 4</u> (drought regulations) <u>January 19</u> (Integrated Report, arrearages guidelines), <u>February 1</u> (Delta updates), and <u>February 15</u> (TUP). The Executive Director reports are available for <u>December</u> and <u>January</u>, which feature a link to the statewide and regional policies calendar.

BIOSOLIDS

CalRecycle Hosting Webinar on 3/1 for RDRS Reporting Requirements

On February 2, CalRecycle announced they will host a second statewide webinar on March 1 from 10 AM to 12 PM to provide additional details on changes to RDRS reporting requirements pursuant SB 1383. The webinar will highlight the entities and data required to be reported via RDRS to comply with SB 1383 regulations regarding organic material recovery and provide screen-shots of the "Organic Measurement" section in RDRS where the data will be entered. This reporting will commence with the first RDRS reporting period for Transfer/Processors starting May 1, 2022, and every reporting period thereafter. If you would like to send questions beforehand, please submit to the SLCP inbox and indicate that the question is for this webinar. To ask clarifying questions during the webinar, please register using this GoToWebinar link. If you have questions, about this event, please contact Greg Kester.

CalRecycle Posts SB 619 Webinar Recording, Applications Due 3/1

On January 31, CalRecycle released their <u>SB 619 webinar and PowerPoint with talking points</u> from the January 13 meeting. Applications for enforcement flexibility of SB 1383 are due on March 1 if you are interested. Please let <u>Greg Kester</u> know if you have questions or comments about this item or email <u>CalRecycle</u>. You may also contact your Local Assistance representative, and you can find out who your representative is here.

CalRecycle Releases New Procurement Webpage and Q&As Published

On January 5, CalRecycle published a new informational webpage dedicated to the SB 1383 requirements for the procurement of recovered organic waste products. This webpage provides guidance on jurisdiction procurement targets and opportunities to procure recovered organic waste products, and can be found here. CalRecycle also has published new Q&As focused on the procurement of biomass electricity and renewable gas, which can be found here. Please let Greg Kester know if you have any questions.

CASA Submits Response to Sierra Club

On January 10, <u>CASA provided remarks</u> from the public wastewater sector with regard to the Sierra Club report "Sludge in the Garden: Toxic PFAS in Home Fertilizers Made from Sewage Sludge." We look forward to productive collaboration with the Sierra Club to mitigate PFAS issues while preserving the sustainability of our beneficial water and biosolids recycling programs. Please contact <u>Greg Kester</u> with any questions or comments.

BACWA 2021 Biosolids Report Available

Last month, the Bay Area Clean Water Agencies (BACWA) released the final version of the 2021 Biosolids Survey Report for the Bay Area. Many thanks to BACWA's Mary Cousins and Lorien Fono, as well as all the contributing Bay Area Agencies for this great resource. Please let Greg Kester know if you have any questions or comments.

February Research Library

Please find <u>the summary</u> (blurb) and <u>the abstracts</u> for this month's biosolids research library from Dr. Sally Brown (UW) and NW Biosolids. Let <u>Greg Kester</u> know if you would like any of the complete articles.

CALENDAR



KEY REGULATORY ISSUE SUMMARY Updated February 2, 2022

Action items for member agencies are in **bold**

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New updates in this version are shown in Purple highlighting

Background Highlights

Challenges and Recent Updates

Next Steps for BACWA

Links/Resources

NUTRIENTS IN SAN FRANCISCO BAY

- San Francisco Bay receives some
 of the highest nitrogen loads among
 estuaries worldwide, yet has not
 historically experienced the water
 quality problems typical of other
 nutrient-enriched estuaries. It is not
 known whether this level of nitrogen
 loading, which will continue to
 increase in proportion to human
 population increase, is sustainable
 over the long term.
- Because of the complexity of the science behind nutrient impacts in SF Bay, stakeholders in the region are participating in a steering committee to prioritize scientific studies and ensure that all science to be used for policy decisions is conducted under one umbrella.
- For FY22, BACWA is contributing \$2.2M to fund scientific research needed to make management decisions for the 3rd Watershed Permit. This level of funding is required by the 2nd Watershed Permit.
- The focus of current scientific efforts is improving model representation of biogeochemistry, light attenuation, dissolved oxygen, and Harmful Algal Bloom dynamics.
 Field and lab observations are supporting these improvements.
- The science team is developing an Assessment Framework for deep subtidal habitats and Lower South Bay sloughs.
- The science team has completed an assessment of the geographic zone of influence of each plant's discharge, which will aid in developing management approaches.

- Assist with preparation of a brief "State of the Science" document summarizing the scientific accomplishments of the Nutrient Management Strategy team for public use.
- Continue to participate in steering committee, Nutrient Management Strategy, Nutrient Technical Workgroup, and planning subcommittee meetings, and provide funding for scientific studies.
- Continue to engage with Nutrient Technical Team and BACWA's Nutrient Management Strategy technical consultant, Mike Connor, to provide review of recent work products and charge questions for the science team.

BACWA Nutrients Page: https://bacwa.org/nutrients/

Nutrient Management
Strategy FY2021
Program Plan
https://drive.google.com/fil
e/d/1vhwNXfjBJH89sIB X
UQdyne7dK3tWjhm/view

Nutrient Management Strategy FY22 Program Plan https://drive.google.com/fi le/d/1zUJLjdefBoFmzD0L ZDMB4aH_030wvebA/vi ew

		Atta	chment No. 13.b				
Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources				
SF BAY NUTRIENT WATERSHED PE	SF BAY NUTRIENT WATERSHED PERMIT						
 The 1st Nutrient Watershed Permit was adopted in 2014, and required a regional study on Nutrient Treatment by Optimization and Upgrades, completed in 2018. The 2nd Nutrient Watershed Permit was adopted in 2019. It includes: Continued individual POTW nutrient monitoring and reporting; Continued group annual reporting; Continued group annual reporting; Regional assessment of the feasibility and cost for reducing nutrients through nature-based systems and recycled water; Establishing current performance for TIN, and "load targets" for nutrient loads based on 2014 to 2017 load data plus a 15% buffer for growth and variability Recognition of "early actors" who are planning projects that will substantially decrease TIN loads. Through the nutrient surcharge levied on permittees, BACWA funds compliance with the following provisions on behalf of its members: Group Annual Reporting Regional Studies on Nature-Based Systems and Recycled Water Support of scientific studies through the Regional Monitoring Program (RMP) at \$2.2M per year through the five-year permit term. 	 Studies related to Recycled Water and Nature-Based Systems are underway, and will be completed by the due date of July 1, 2023. Each year by February 1, BACWA submits a Group Annual Report on behalf of its members. The report summarizes trends in nutrient concentrations and loading for each agency, and for all the agencies as a whole. The annual reporting period in the 2nd Watershed Permit is based on a water year (October 1 – September 30th). The Group Annual Report for October 2020 – September 2021 includes several new sections, including analysis of influent loading trends and data regarding recycled water diverted from San Francisco Bay. Each year by February 1, BACWA and SFEI submit an annual science implementation plan and schedule update, as required by the 2nd Watershed Permit. Agencies with plans to substantially reduce nutrients are recognized in the Fact Sheet of the 2nd watershed permit. 	 BACWA continues to convene a Nutrient Strategy Team (NST) to develop BACWA's key tenets for the 3rd Watershed Permit. Complete a statistical analysis of historical loading trends to support the eventual development of antidegradation-based load caps in the 3rd Watershed Permit. Agencies continue to report nutrient monitoring to the Water Boards through CIWQS and to BACWA via the data sheet. Agencies with plans to implement projects that will substantially reduce nutrient loads should keep the Regional Water Board and BACWA apprised, to get credit for "early actions." Review draft reports by HDR and SFEI for the Nutrient Removal by Recycled Water Evaluation and the Nature-Based Systems study. Draft agency reports for the Recycled Water Evaluation have already begun to be distributed for agency review, and more are expected in early- to mid-2022. Continue working with HDR to develop compliance feasibility information related to load limits in the 3rd Watershed Permit. 	2nd Nutrient Watershed Permit: https://www.waterboards. ca.gov/sanfranciscobay/b oard_info/agendas/2019/ May/6_ssr.pdf Special Studies of Recycled Water and Nature-Based Systems: https://bacwa.org/docume nt-category/2nd- watershed-permit-studies/ Optimization/Upgrade Study Information: https://bacwa.org/docume nt-category/optimization- and-upgrade-studies/ BACWA Group Nutrient Annual Reports: http://bacwa.org/documen t-category/nutrient- annual-reports/				

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
CHLORINE RESIDUAL COMPLIANCE	=		
 The Basin Plan chlorine residual effluent limit is 0.0 mg/L. Chlorine residual is the most frequent parameter for violations for Region 2 POTWs. Because there are 24 hourly reporting events each day, the "opportunities" for violations are enormous. However, the actual violation rates are infinitesimal (~0.001%). Agencies are overdosing their effluent with the dechlorination agent, sodium bisulfite, to prevent chlorine violations, a practice which costs more than \$1 million regionally each year. 	 The Regional Water Board worked with BACWA to develop a Basin Plan Amendment (BPA) modifying the effluent limit for chlorine residual. The BPA includes: A 0.013 mg/L Water Quality Objective in marine and estuarine waters, which will be applied as a WQBEL in permits and calculated incorporating dilution. The WQBEL will be applied as a one-hour average. A Minimum Level (ML), or Reporting Limit of 0.05 mg/L for online continuous monitoring system. The BPA was adopted by the Regional Water Board in November 2020, approved by the State Water Board and Office of Administrative Law in 2021, and is now awaiting final review by EPA. In October 2021, the Regional Water Board adopted a blanket permit amendment (Order R2-2021-0019) implementing the Basin Plan Amendment within each individual NPDES permit. The order will become effective shortly after the Basin Plan Amendment is approved by the EPA. The likely effective date is March 1, 2022. 	 Prepare for a short turnaround time for implementation of the new chlorine residual limits, as follows: Ensure compliance with the new minimum required frequency of once every 5 minutes. Ensure the monitoring system complies with the new minimum level of 0.05 mg/L. Members that plan to discharge detectable residual chlorine may need to adapt sampling and analysis procedures for other constituents for which residual chlorine could interfere, such as whole effluent toxicity and ammonia. Use the highest one-hour arithmetic mean as the daily value reported into CIWQS. 	Background and Status information about BPA on Regional Water Board site: https://www.waterboards. ca.gov/sanfranciscobay/water issues/programs/planningtmdls/amendments/chlorinebpa.html Final BPA adopted by Regional Water Board https://www.waterboards.ca.gov/sanfranciscobay//water issues/programs/planningtmdls/amendments/chlorinebpa/2 Chlorine Resolution R2-2020-0031.pdf Blanket Permit Amendment for Chlorine and Oil and Grease https://www.waterboards.ca.gov/sanfranciscobay/board decisions/adopted orders/2021/R2-2021-0019.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
 Pesticides are regulated via FIFRA, and not the Clean Water Act. POTWs do not have the authority to regulate pesticide use in their service area, but may be responsible for pesticide impacts to their treatment processes or to surface water. Through BAPPG, BACWA aims to proactively support a scientific and regulatory advocacy program so 	 EPA reviews all registered pesticides at least once every 15 years. Each review allows opportunity for public comment. BACWA continues to fund consultant support to write comment letters advocating for the consideration of POTW and surface water issues during EPA's risk assessments as part of reregistration. Funding for pesticide regulatory outreach in FY22 	 Next Steps for BACWA Continue to comment on pesticide re-registrations. Work with veterinary associations on messaging with respect to flea and tick control alternatives. Continue to develop summary of EPA actions on pesticides. Look for opportunities to work with CalDPR on pesticides research. 	BACWA Pesticides Regulatory Update and Call to action: https://bacwa.org/wp- content/uploads/2016/02/ BACWA-Pesticide- Regulatory-Update-2016- 1.pdf BACWA Pesticide Regulatory Support Page
that pesticides will not impact POTWs' primary functions of collecting and treating wastewater, recycling water, and managing biosolids, or impact receiving waters via the "down the drain" route.	 is \$60K. The Regional Water Board leverages BACWA's efforts to provide their own comment letters to EPA. With chronic toxicity limits likely in the near term, POTWs will be in compliance jeopardy if pesticides contribute to toxicity. Baywise.org has launched webpages on flea and tick control messaging to pet owners and veterinarians. 	Work with other regional associations, such as the California Stormwater Quality Association (CASQA), to collaborate on funding pesticide regulatory outreach.	https://bacwa.org/bappg-pesticides/ Baywise flea and tick pages: https://baywise.org/residential/pets/keep-pets-free-of-fleas-and-ticks/
ENTEROCOCCUS LIMITS			

- In 2019, new statewide water quality objectives for bacteria were implemented to protect recreational users. The objectives are now part 3 of the Water Quality Control Plan for the SIP and Ocean Plan.
- In February 2021, the Regional Water Board amended the Basin Plan to reflect the new statewide objectives. The same order also established a bacteria TMDL for two beaches in the Half Moon Bay area.
- The new enterococcus objective for saline waters is a six-week rolling geometric mean not to exceed 30 CFU/100 mL and a statistical threshold value of 110 CFU/100 mL
- In July 2021, the State Water Board approved the Basin Plan Amendment and TMDL. The action has been approved by the OAL and is awaiting final approval by EPA, though the water quality objectives are already in effect.
- Dischargers may request dilution credits when the new objective is implemented within NPDES permits, based on a study completed by BACWA and SFEI to establish background enterococcus levels in SF Bay.
- The study, completed in June 2020, showed all stations in the Bay were below the objective of 30 CFU/100 mL

SFEI Report on Enterococci in SF Bay: https://bacwa.org/wpcontent/uploads/2020/08/BA CWA-2020 Enterococcireport final.pdf

Regional Water Board Basin Plan Amendment: https://www.waterboards.ca. gov/sanfranciscobay/water i ssues/programs/TMDLs/PP H TMDL.html

round Highlights	Challenges and Recent Updates

Next Steps for BACWA

Links/Resources

MERCURY AND PCBS

Backgr

- The Mercury & PCBs Watershed Permit was reissued in November 2017 with an effective date of January 1, 2018. The Watershed Permit is based on the TMDLs for each of these pollutants.
- Aggregate mercury and PCBs loads have been well below waste load allocations through 2020, the last year for which data have been compiled.
- Method 1668C for measuring PCB congeners has not been promulgated by EPA. Data collected during the first permit term varied widely depending on which laboratory performed the analyses. BACWA Laboratory Committee developed an updated PCB Protocol to reduce variability between laboratories running Method 1668C, effective January 1, 2014. Data have been more consistent since the distribution of this document.
- In 2017, EPA adopted federal pretreatment program rules requiring dental offices to install dental amalgam separators. The rule is intended to reduce dental office discharge of mercury. The compliance date was July 14, 2020.

- The 2017 Watershed Permit requires continued risk reduction program funding. For FY22, BACWA granted an extension to an ongoing contract worth \$12,500 to the California Indian Environmental Alliance to conduct risk reduction activities related to fish consumption. A previous contract for APA Family Support Services is now complete.
- Beginning January 1, 2022, monitoring requirements for mercury have been reduced for most dischargers per Order R2-2021-0028 (see link at right). For most dischargers, this replaces the 2016 Alternate Monitoring and Reporting Requirements for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Bay RMP.
- As part of the 2021 Triennial Review of the Basin Plan, the Regional Water Board has prioritized designation of three new beneficial uses: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (TSUB) and Subsistence Fishing (SUB). Water bodies designated these beneficial uses could also be assigned lower mercury objectives. In September 2021, this basin planning project was ranked as a "high priority" in the Triennial Review

- Synthesize PCBs loading data analyzed via Method 1668C ahead of the 2022 reissuance of the Mercury & PCBs Watershed Permit. This large data set demonstrates compliance with the TMDL, but may also be useful in assessing necessary monitoring frequencies.
- The 2017 Permit expires in December 2022. Reissuance activities for the Mercury and PCBs Watershed Permit will occur in the second half of 2022.
- Continue outreach to dentists BAPPG and BACWA's pretreatment committee. Under the federal pretreatment program, all dental facilities were required to submit onetime compliance reports by October 2020.
- Schedule risk reduction presentations by the grantees to the Regional Water Board in 2022.
- Track potential Basin Plan
 Amendments resulting from the
 Triennial Review project related
 to new beneficial use
 designations. The new
 designations are not expected
 to impact the bay-wide mercury
 TMDL in the near term, but
 there could be localized or
 longer-term impacts.

2017 Mercury & PCBs Watershed Permit: https://www.waterboards. ca.gov/sanfranciscobay/b oard_info/agendas/2017/ November/5b_final_to.pdf

Risk Reduction Materials: https://bacwa.org/mercury pcb-risk-reductionmaterials/

Updated BACWA PCBs Protocol: https://bacwa.org/wpcontent/uploads/2014/02/ PCBs-Sampling-Analysisand-Reporting-Protocols-

Dec13.pdf

One-Time Compliance Report for Dental Offices: https://www.waterboards. ca.gov/water issues/prog rams/npdes/docs/drinking water/one-time compl iance report for dental offices.pdf

NPDES Permit
Amendment for
Monitoring and Reporting
https://www.waterboards.
ca.gov/sanfranciscobay/b
oard decisions/adopted
orders/2021/R2-20210028.pdf

Next Steps for BACWA

Links/Resources

STATE WATER BOARD TOXICITY PROVISIONS

- The State Water Board has been working since before 2012 to establish Toxicity Provisions in the SIP that would introduce uniform Whole Effluent Toxicity Requirements for the State
- During individual permit reissuances since 2015, the Regional Water Board has been performing RPAs for chronic toxicity and giving chronic toxicity limits to agencies with Reasonable Potential.
- Proposed Final Statewide Toxicity Provisions were released in October 2020, incorporating revisions to previous versions from 2018 to 2020. The Provisions establish:
 - Use of Test of Significant Toxicity (TST) as statistical method to determine toxicity replacing EC25/IC25 (with concerns it will lead to more false positive results);
 - Numeric limits for chronic toxicity for POTWs >5 MGD and with a pretreatment program; smaller POTWs would receive effluent targets and only receive limits if Reasonable Potential is established;
 - Regional Water Board discretion on whether to require RPAs for acute toxicity;
- For POTWs with Ceriodaphnia dubia as most sensitive species, numeric targets rather than limits until after completion of state-wide study on lab/ testing issues (Dec. 31, 2023).

- The State Water Board first adopted the Statewide Toxicity Provisions at its December 2020 meeting. In October 2021, the State Water Board affirmed that the Statewide Toxicity Provisions were adopted as state policy for water quality control for all inland surface waters and estuaries. The Toxicity Provisions are expected to go into effect no sooner than mid-2022 after approval by OAL and EPA.
- Implementation will be on a permit-bypermit basis as new individual NPDES permits are issued.
- Since 2016, agencies have had the option to skip sensitive species screening upon permit reissuance and pay the avoided funds to the RMP to be used for CECs studies. Once the Statewide Toxicity Provisions come into effect, agencies will once again be required by the provisions to do sensitive species screening once every 15 years.
- BACWA joined SCAP, CVCWA and NACWA in a lawsuit alleging EPA did not follow proper procedure in requiring use of the TST, which has not been officially promulgated. The lawsuit was dismissed on Statute of Limitation grounds. An appeal to the 9th Circuit Court of Appeals was denied in September 2021 on the basis that the EPA guidance document is not a final agency action that can be reviewed by the courts. POTWs' only recourse is to challenge individual permits that include the procedure.

- Continue to work with Regional Water Board on language for implementing Toxicity Provisions in Region 2 NPDES Permits.
- Regional Water Board staff provided revised draft permit language to BACWA in December 2021, and members provided feedback on this revised draft in January 2022. BACWA will work with the Regional Water Board to finalize the template in Spring 2022, ahead of its first use in mid-2022. The language will ultimately be copied into each newly adopted permit in the region, filling in details about monitoring and screening requirements that the Provisions leave to Regional Water Board discretion.
- Share information on the special study on the Ceriodaphnia dubia test method with agencies who have that species in their permits.

SWRCB Toxicity Page: http://www.swrcb.ca.gov/ water_issues/programs/st ate_implementation_polic y/tx_ass_cntrl.shtml

Toxicity Provisions adopted December 2020: https://www.waterboards.ca.gov/water issues/programs/state implementation policy/docs/provisions final.pdf

Toxicity Workshop Presentations from 2017 BACWA Workshop: https://bacwa.org/bacwatoxicity-workshopseptember-18-2017/

Regional Water Board presentation on implementation of Statewide Toxicity Provisions from December 2020 https://bacwa.org/wp-content/uploads/2021/01/Slides-from-RWQCB-Regarding-R2-Tox-Language-in-NPDES-Permits-2020-12-08.pdf

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COMPOUNDS OF EMERGING CONCERN (CECS)

- Pharmaceuticals and other trace compounds of emerging concern (CECs) are ubiquitous in wastewater at low concentrations and have unknown effects on aquatic organisms.
- The State Water Board is considering developing a Pilot CECs Monitoring Plan for the State.
- Region 2's CEC strategy focuses on monitoring/tracking concentrations of constituents with high occurrence and high potential toxicity. Much of what the State Water Board is considering for its Pilot Monitoring Plan is already being implemented in Region 2 through the RMP.
- Microplastics have been a focus of the RMP in recent years. BACWA has participated in the Workgroup and developed a POTW Fact Sheet. One conclusion of the RMP work is that POTWs contribute much lower microplastic loads than stormwater.

- The Regional Water Board has stated that voluntary and representative participation in RMP CECs studies is key to avoiding regulatory mandates for CECs monitoring. These studies are informational and not for compliance purposes. BACWA developed a White Paper on representative participation to be used to support facility selection for these studies.
- Bay dischargers are continuing to provide supplemental funding for RMP CECs studies through the NPDES Permit Amendment for Monitoring and Reporting adopted in December 2021 by the Regional Water Board. RMP Invoices for Calendar Year 2022 will reflect the newly adopted Order.
- DDW has adopted a definition of Microplastics in Drinking Water (may apply to other matrices such as wastewater and stormwater in the future).
- In 2021, the OPC funded a study investigating microplastic removal through wastewater treatment processes. The study is being carried out by SCCWRP and SFEI. It commenced with pilot study, and fullscale sampling of about 15 facilities will occur in 2022.
- In 2021, the Ocean Protection Council released a draft Statewide Microplastics Strategy that calls for increased water recycling, additional monitoring of wastewater, source control in wastewater, and additional scientific research.

- Continue to participate in the RMP CEC Workgroup.
- Participate in studies by collecting wastewater samples at member facilities. Studies this year will include ethoxylated surfactants follow-up, sunscreens, and the OPCfunded microplastic study.
- Provide ongoing updates to White Paper for use by the RMP in selecting representative POTWs for participation in CEC studies, and develop a proposal for ongoing monitoring.
- Continue tracking State Water Board and Ocean Protection Council actions re: microplastics via the CASA Microplastics Workgroup.

RMP CEC Workgroup: http://www.sfei.org/rmp/ec wg#tab-1-4

BACWA CECs White Paper:

https://bacwa.org/docume nt/bacwa-cec-whitepaper-updated-june-2020/

BACWA Microplastics
Fact Sheet:
https://bacwa.org/wpcontent/uploads/2019/09/
BACWA-Microplasticsflyer.pdf

SFEI Microplastics Science Strategy: www.sfei.org/documents/ microplastic-monitoringand-science-strategy-sanfrancisco-bay

SWRCB Microplastics in Drinking Water page: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/microplastics.html

NPDES Permit
Amendment for
Monitoring and Reporting
https://www.waterboards.
ca.gov/sanfranciscobay/b
oard decisions/adopted
orders/2021/R2-20210028.pdf

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

- Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made substances that are very resistant to heat, water, and oil. PFAS have been used extensively in surface coating and protectant formulations; common PFAS-containing products are non-stick cookware, cardboard/paper food packaging, water-resistant clothing, carpets, and fire-fighting foam.
- Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS that are no longer manufactured in the US; however, other types of PFAS are still produced and used in the US.
- All PFAS are persistent in the environment, can accumulate within the human body, and have demonstrated toxicity at relatively low concentrations. PFOA and PFOS were found in the blood of nearly all people tested in several national surveys.
- Potential regulatory efforts to address PFAS focus on drinking water in order to minimize human ingestion of these chemicals, although regulators have also expressed concern about uptake into food from land applied biosolids.
- In April 2021, the formation of an "EPA Council on PFAS" was announced.

- DDW has developed drinking water notification levels (NLs) and response levels for PFOA, PFOS, and Perfluorobutane Sulfonic Acid (PFBS).
- At DDW's request, OEHHA is developing NLs for seven other PFAS compounds and public health goals (PHGs) for both PFOA and PFOS as the next step in establishing drinking water MCLs.
- In July 2021, OEHHA proposed a PHG of 0.007 ng/L for PFOA and 1 ng/L for PFOS.
- In July 2020, the SWRCB issued an Investigative order for POTWs.
 Investigative orders have also been issued for landfills, airports, chrome platers, and refineries & bulk terminals. The July 2020 SWRCB investigative Order for POTWs is not applicable to Region 2 agencies.
- The Summit Partners held four PFAS Workshops for POTWs in late 2020 and 2021. The most recent workshop was in September 2021.
- EPA is beginning pretreatment standards rulemaking for two types of industrial users: Metal Finishing, and Organic Chemicals, Plastics and Synthetic Fibers.
- In September 2021, EPA released Draft Method 1633 for analysis of PFAS in complex matrices like wastewater.
- In October 2021, state legislation passed banning PFAS in children's products (AB 652) and food packaging (AB 1200).

- BACWA worked with RWB staff and obtained State Water Board approval to fund and conduct a Regional PFAS Study in lieu of the statewide investigative order.
- SFEI is conducting this study in two phases:
- o In Phase 1, fourteen representative facilities collected samples in Q4 2020 for influent, effluent, RO concentrate, and biosolids. SFEI has uploaded the data into Geotracker and will issue a report in October 2021. BACWA has prepared a Fact Sheet regarding Phase 1 results (see link at right).
- Phase 2 of the PFAS
 Regional Study will be
 conducted in Spring 2022.
 Preparation of the plan is
 underway. Phase 2 will
 include sampling of influent,
 effluent, and biosolids;
 residential sewersheds,
 commercial and industrial
 users; hauled waste; and
 groundwater.
- BACWA will continue collaboration with Summit Partners and non-governmental organizations on legislation related to pollution prevention, as well as tracking developments at the State and Regional level.

Region 2 PFAS Study Phase 1 Presentation: https://bacwa.org/wpcontent/uploads/2021/09/ Mendez-Miguel-PFAS-Workshop-4.pdf

Region 2 PFAS Study Fact Sheet: https://bacwa.org/wpcontent/uploads/2021/08/ PFAS-Fact-Sheet-Phase-I.pdf

Summit Partners PFAS
Workshop presentations:
https://casaweb.org/calendar/speaker-presentations/

SWRCB Investigative
Order for POTWs:
https://www.waterboards.
ca.gov/board_decisions/a
dopted_orders/water_qua
lity/2020/wqo2020_0015
dwg.pdf

OEHHA Drinking Water: https://oehha.ca.gov/water

EPA PFAS Resources https://www.epa.gov/pfas

EPA PFAS Strategic Roadmap (Oct 2021) https://www.epa.gov/pfas/ pfas-strategic-roadmapepas-commitmentsaction-2021-2024

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
SSS WDR REISSUANCE			
 The State Water Board plans to reissue the statewide Sanitary Sewer System General Order (SSS-WDR). State Water Board staff sought out early stakeholder engagement through outreach to CASA and the Regional Associations, and NGOs. The State Water Board's goals for the update are: Updating the 2006 Order Clarifying compliance expectations and enhancing enforceability Addressing system resiliency, including climate change impacts Identifying valuable data and eliminating non-valuable reporting requirements 	 In February 2021, the State Water Board released an informal staff draft of the updated SSS-WDR. BACWA worked with CASA to provide proposed redlines to the informal staff draft, and discussed concerns in several meetings with State Water Board staff. BACWA also provided a comment letter on the informal staff draft. A draft for public review and comment was released on January 31, 2022. This new draft addressed many of BACWA and CASA's comments on the February 2021 informal staff draft. The draft SSS-WDR requires careful review, as it is significantly different from the February 2021 version. 	 Review and comment on the public review draft SSS-WDR, posted for public comment on January 31, 2022. Written comments are due April 8th, and a State Water Board workshop is scheduled for March 15th. Attend and participate in SWRCB Staff Workshops scheduled for February 23 and 24, 2022. Continue to coordinate with CASA, CVCWA, and SCAP on proposed revisions and reorganization of the SSMP requirements Discuss response to issues such as exfiltration via BACWA's Collection Systems Committee. 	SWB SSS WDR page: https://www.waterboards. ca.gov/water issues/prog rams/sso/ SWB Draft for Public Comment and Workshop Instructions https://www.waterboards. ca.gov/water issues/prog rams/sso/docs/2022-01- draft-sanitary-sewer- systems-general- order.pdf BACWA / CASA Comment Letter on February 2021 Informal Staff Draft: https://bacwa.org/wp- content/uploads/2021/07/ 6-30-21-SSS-WDR- Comment-Letter.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
ELAP UPDATE			
 In May 2020, the State Water Board adopted new comprehensive regulations for the Environmental Laboratory Accreditation Program. Adoption of the new regulations was required by AB 1438, legislation that became effective in 2018. The new ELAP regulations will replace the current state-specific accreditation standards with a national laboratory standard established by The NELAC Institute (TNI). 	 The new ELAP regulations became effective as of January 1, 2021. Compliance with TNI standards is required beginning January 1, 2024. Adoption of TNI standards poses a challenge since there are more than 1,000 individual requirements. Setup costs may include: Hiring and/or training staff; Hiring consultants to set up the TNI documentation framework; Purchasing Laboratory Information Management System (LIMS) software; Purchasing documents and training material from TNI, etc. The new standards will be a particular burden on small laboratories, which may choose to close if they cannot economically meet the new standards. ELAP's "Roadmap to ELAP Accreditation" Program is the outreach and training component of the new regulations. ELAP staff have presented to the Lab Committee in June 2020, February 2021, and April 2021. ELAP has contracted with A2LA Workplace Training to provide training sessions. The BACWA Lab Committee began providing monthly TNI training sessions beginning in July 2021. 	 Offer monthly training sessions to BACWA members. The free virtual training sessions are open to BACWA members holding a valid copy of the 2016 TNI Standard, and are occurring on the 3rd Tuesday of each month throughout 2022. Training is provided by Diane Lawver of Quality Assurance Solutions, LLC, and other subject matter experts. Continue to work through BACWA's Laboratory Committee to support members as they navigate laboratory accreditation under the new TNI standards. Publicize training opportunities offered by consultants, ELAP, and others. Provide a forum for BACWA laboratories to share experiences and lessons learned from various approaches to TNI implementation. 	State Water Board's 'Roadmap to ELAP Accreditation' page: https://www.waterboards. ca.gov/drinking_water/cer tlic/labs/roadmap_to_elap_accreditation.html Roadmap to Accreditation Presentation to BACWA Lab Committee: https://bacwa.org/wp- content/uploads/2020/06/ California-ELAP- Regulations- BACWA 06092020.pdf State Water Board's ELAP regulations page: http://www.waterboards.c a.gov/drinking_water/certl ic/labs/elap_regulations.s html Monthly Training Session flyer: https://bacwa.org/wp- content/uploads/2021/07/ BACWA-Lab-TNI- Training-Series-Flyer.pdf

PHASE-OUT OF BIOSOLIDS AS ALTERNATIVE DAILY COVER

- Regulatory drivers are indicating that biosolids used as alternative daily cover (ADC) or disposed in landfills will be phased out:
 - AB 341 set a goal to recycle 75% of solid waste by 2020 and CalRecycle's plan to achieve that goal called for a marked, but unquantified, reduction of organics to landfills.
 - SB 1383, adopted in September 2016 requires organics diversion:
 -50% by 2020 (relative to 2014)
 -75% by 2025 (relative to 2014)
- Regulations implementing SB 1383 went into effect on January 1, 2022, so the State can begin enforcement on jurisdictions.
 However, jurisdictions can request a one-year enforcement delay by submitting a Notice of Intent to Comply by March 1, 2022 (as allowed by SB 619). Jurisdictions can begin local enforcement January 1, 2024, and compliance is required by January 1, 2025.
- While the regulations implementing SB 1383 do not explicitly forbid biosolids disposal/reuse in landfills, it is assumed that since biosolids are a relatively "clean" waste stream that can be easily diverted, landfills will stop accepting biosolids.

- BACWA's 2021 Biosolids Trends Survey Report compiles member agency activities in 2018-2020, as well as survey responses regarding SB 1383 implementation.
- Requirements for SB 1383 implementation include:
 - Diverted biosolids must be anaerobically digested and/or composted to qualify as landfill reduction.
 - Beginning Jan 1, 2022, CalRecycle will consider whether other specific treatment technologies can qualify as landfill reduction (per Article 2 of SB 1383).
 - Local ordinances restricting land application are disallowed.
 - Jurisdictions that divert organic waste must also procure the end products of diversion, such as biogas, biomethane, and compost (but not biosolids).
- Concerns that county ordinances will unreasonably restrict the beneficial reuse of biosolids have been partially addressed by CalRecycle in a new FAQ on SB1383. CalRecycle considers bans on land application to be unenforceable. CASA continues to conduct outreach to the California County Directors of Environmental Health (CCDEH) on this issue.

- Follow efforts of the Regional Water Board to revise biosolids permitting requirements for land application and disposal, particularly in the Baylands.
 For example, land application sites in the Baylands may be subject to additional monitoring requirements.
- Actively work through CASA with California Air Resource Board, CalRecycle, State Water Board, and California Department of Food and Agriculture to develop sustainable long-term options for biosolids beneficial use.
- Follow efforts of the Bay Area Biosolids Coalition (BABC) to investigate all-weather options for biosolids management.
 BABC is a BACWA Project of Special Benefit.
- Participate in BAAQMD's
 Organics Recovery Technical
 Working Group to educate their
 staff on implementation of SB
 1383 at the Air District level.
- Meet with BAAQMD regularly in 2022 to discuss alignment of state and local regulations.
- Work with CASA and others to respond to CCDEH concerns regarding safety standards for land application (see July 2021 letter, link at right).

BACWA 2021 Biosolids Trends Survey Report: https://bacwa.org/wpcontent/uploads/2021/12/ BACWA-2021-Biosolids-Trends-Survey-Report.pdf

BABC website: http://www.bayareabiosoli

ds.com/

CASA White Paper on SB 1383 Implementation: https://bacwa.org/docume nt/summary-of-sb-1383and-its-implementationcasa-2020/

CASA July 2021
Response Letter to
CCDEH
https://casaweb.org/wpcontent/uploads/2021/07/
CASA-Response-toCCDEH-Letters071321.pdf

CalRecycle website for California Short-Lived Climate Pollutant Reduction Strategy https://www.calrecycle.ca. gov/organics/slcp

CalRecycle FAQ for SB 1383 Implementation https://calrecycle.ca.gov/o rganics/slcp/faq

Attachment No. 13			
Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
CLIMATE CHANGE MITIGATION			
 CARB's Climate Change Scoping Plan Update lays out the approach for the State to meet its greenhouse gas (GHG) emissions reduction targets through 2030, including additional policies to achieve 40% reduction below 1990 levels by 2030: Short-lived climate pollutants Carbon sequestration on Natural and Working Lands Largest emitters (transportation, electricity, and industrial sectors) The Scoping Plan will be updated in 2022 targeting carbon neutrality by 2045 and, if possible, 2035. SB 1383 (Short-Lived Climate Pollutant Reduction) calls for: 40% methane reduction by 2030 75% diversion of organic waste from landfills by 2025 Policy / regulatory development encouraging production/use of biogas BAAQMD developed a Clean Air Plan requiring GHG emissions supporting CARB's 2050 target. BAAQMD has proposed the development of Regulation 13 (climate pollutants) targeting GHG reductions related to organics diversion and management. In October 2020, Governor Newsom signed Executive Order N-82-20 calling for nature-based land management strategies to address climate change, such as natural and working lands restoration. 	 CARB states POTWs are part of the solution for reducing fugitive methane, and encourages diversion of organics to POTWs to use excess digester capacity and produce biogas. CARB is pursuing rapid fleet electrification, including medium and heavy-duty vehicles, through the Advanced Clean Fleet rule. Complete electrification will remove a potential market for biogas. CASA is engaging on this issue to request continued allowance of biogas as a sustainable transportation fuel. Many POTWs are exploring energy generation, but BAAQMD TAC regulations could make such programs more difficult to implement. Direct injection of biogas to PG&E's pipelines or use as a transportation fuel may be more efficient. CARB's previous interest in nitrous oxide emission estimates and/or emission factors for POTWs has shifted to toxic air contaminants. See Toxic Air Contaminants - BAAQMD Rule 11-18, AB 617, and AB 2588. BAAQMD is developing a suite of Rules under Regulation 13 for climate pollutants methane and nitrous oxide. However, rule development has been suspended due to COVID-19 and lack of data. The delay is allowing time to summarize information about current best management practices. 	 Review the summary of the AIR committee-led survey regarding current methane management practices at anaerobic digesters and sludge lagoons. After committee review, this summary will be shared with BAAQMD staff. For Regulation 13, continue to work with BAAQMD staff to provide information and education about anaerobic digesters and POTW operations. Participate in the Organics Recovery Technical Working Group, as well as comment on draft Rules. Look for ways to inform BAAQMD on opportunities and challenges for climate change mitigation by Bay Area POTWs. Work with PG&E and BAAQMD to explore options for POTWs to inject biogas into PG&E pipelines. In February 2022, the CPUC will vote on a mandatory biomethane procurement program for CA's four large gas IOUs (including PG&E) under SB 1440. CASA has been discussing the barriers to pipeline injection with CPUC staff, proposing a reduction in their standard from 990 Btu/scf to 970 Btu/scf. 	Climate Change Scoping Plan, including 2022 Update: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan CARB Short Lived Climate Pollutant Reduction Strategy: https://www.arb.ca.gov/cc/shortlived/meetings/0314 2017/final slcp report.pdf CARB Advanced Clean Fleet Rule: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets/about SB 1383: https://www.calrecycle.ca.gov/organics/slcp BAAQMD Clean Air Plan: http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans BAAQMD Regulation 13 http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants

Next Steps for BACWA

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CLIMATE CHANGE ADAPTATION

- In 2017, the State Water Board adopted a Climate Change Resolution addressing mitigation and adaptation. One requirement is Regional Water Boards will make recommendations to modify permits and/or create other regulatory requirements to reduce vulnerability of water and wastewater infrastructure to flooding, storm surges, and sea level rise.
- The Regional Water Board is planning to modify the Basin Plan under its Climate Change and Wetland Policy Update. The changes will occur through multiple Basin Plan amendments.
- Climate change and water resilience continue to be a strategic priority of the Regional Water Board in 2022.
- In April 2019, Governor Newsom signed Executive Order N-10-19 directing State Agencies to recommend a suite of priorities and actions to build a climate-resilient water system and ensure healthy waterways through the 21st century.

- The California Coastal Commission's November 2021 Sea Level Rise Planning Guidance recommends that agencies "understand and plan" for 2.7 feet of sea level rise by 2050.
- The State Water Board is planning to send a data request to all permitted facilities (collection systems and POTWs) in the State to better understand to what extent agencies are performing climate change vulnerability assessments and/or investing in adaptation measures. They plan to use this information to determine the need for funding assistance or permit requirements for climate change planning.
- In 2021, the Regional Water Board completed a detailed questionnaire of all POTWs in the region to collect information about climate vulnerability and adaptation. Results will be summarized in an Executive Officer report in early 2022.
- The Regional Water Board is developing a Shoreline Resiliency Basin Plan Amendment addressing estuarine wetland protection, living shorelines, beaches, ecotone systems using treated wastewater. A draft is expected in Spring 2022. This Basin Plan Amendment could be used to incentivize the development of wetlands projects by wastewater agencies, and reduce permitting hurdles.

- Review the Shoreline Resiliency Basin Plan Amendment when it is released in 2022. This proposed amendment is part of a larger Climate Change and Wetland Policy Update project.
- Continue to coordinate with State Water Board on the status of their data request on climate change planning, so members can provide the information they request as effectively as possible. Survey expected to be released in 2022.
- Continue to work with Regional Water Board and other resource agencies to look for regulatory solutions to encourage wetlands projects for shoreline resiliency.
- Coordinate with BABC, SFEI and Sonoma Land Trust on preparation of a white paper regarding biosolids management in the Baylands, an important region both for biosolids land application and wetlands restoration (see also Biosolids section, above).
- BACWA recently signed a letter of support for the Bay Adapt Joint Platform. Individual agencies are also invited to endorse the Joint Platform.

California Coastal
Commission's Critical
Infrastructure at Risk
https://documents.coastal.c
a.gov/assets/slr/SLR%20G
uidance_Critical%20Infrast
ructure_12.6.2021.pdf

State Water Board 2017 Climate Change Resolution: https://www.waterboards. ca.gov/board decisions/a dopted orders/resolution s/2017/rs2017 0012.pdf

Regional Water board Wetlands Policy Page: https://www.waterboards. ca.gov/sanfranciscobay/water issues/programs/climate change/wetland policies.html

Information about Proposed Basin Plan Amendment (Issue 5.1): https://www.waterboards. ca.gov/sanfranciscobay/b asin_planning.html#trienn ialreview

Bay Adapt Joint Platform https://www.bayadapt.org/joint-platform/

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TOXIC AIR CONTAMINANTS

- Regulation 11, Rule 18 (Rule 11-18), adopted November 15, 2017, is BAAQMD's effort to protect public health from toxic air pollution from existing facilities, including POTWs.
- Per the Rule, BAAQMD will conduct site-specific Health Risk Screening Analyses (HRSAs) and determine each facility's prioritization score (PS). BAAQMD will conduct Health Risk Assessments (HRAs) for all facilities with a cancer PS>10 or non-cancer PS>1.0. After verifying the model inputs, if the facility still has PS above that threshold, that facility would need to implement a Risk Reduction Plan that may include employing Best Available Retrofit Control Technology for Toxics (TBARCT).
- AB 617 (Community Air Protection Program) – requires CARB to harmonize community air monitoring, reporting, & local emissions reduction programs for air toxics and GHGs). POTWs within communities already impacted by air pollution may have to accelerate implementation of risk reduction measures.
- AB 2588 (Air Toxics "Hot Spots" Program) - Establishes a statewide program for the inventory of air toxics emissions from individual facilities, as well as requirements for risk assessment and public notification of potential health risks. 2020 updates expanded compound list from >500 to >1,000.

- BACWA developed a White Paper on BAAQMD Rule 11-18 to describe its potential impacts on the POTW community.
- In response to a request by BAAQMD, the AIR Committee delivered a letter report summarizing specific challenges that POTWs would face in complying with the rule due to budgeting and planning constraints related to being public agencies.
- In response, BAAQMD moved all POTWs to Phase 2 to give sufficient time to update the model's inputs, and plan for emissions reduction or TBARCT, as needed.
- AIR Committee gathered data on proximity factors from each facility and submitted to BAAQMD for updating prioritization scores, which will be use in HRA development.
- In the Final Statement of Reasons for rulemaking on AB 617 and AB 2588, CARB provided the wastewater sector time to develop a short-list of relevant compounds and perform a pooled emissions estimating effort to update outdated default emission factors (through 2028).
- In December 2021, BAAQMD amended Rule 2-5 to reduce allowable levels of toxic air contaminants in new source permitting. BAAQMD will also establish a working group with POTWs to address concerns related to toxic air contaminants and rulemaking.

- Priority: Agencies should use the tool developed by the AIR Committee to address emission contributions from influent flows, which will be used to update emissions inventory values.
- Respond to BAAQMD data request beginning in 2022. There will be a 60-day turnaround to comply with the data request. Following data collection and verification, BAAQMD will develop HRAs for facilities with a cancer PS>10 or non-cancer PS>1.0. Implementation of the Rule for Phase 2 facilities will be spread out over two years depending on the PS.
- Contribute to the working group to be convened with BAAQMD staff to discuss toxic air contaminants, rule development, and related issues.
- Report "business as usual" for air toxics through 2028. If BAAQMD requests additional monitoring of air toxics, member agencies should refer to the one-page handout on this topic prepared by CASA. The wastewater sector has until 2028 to perform a statewide "two-step process" in collaboration with CARB and air districts to determine a shortlist of compounds relevant to the wastewater sector to report.

BAAQMD Rule 11-18 page:

http://www.baaqmd.gov/rule s-and-compliance/ruledevelopment/rules-underdevelopment/regulation-11rule-18

Rule 11-18 Process Flowchart:

https://bacwa.org/document/baaqmd-11-18-process-flowchart-08-17-17/

CARB page on AB 617 and AB 2588:

https://ww2.arb.ca.gov/ourwork/programs/criteria-andtoxics-reporting Final Statement of Reasons https://ww3.arb.ca.gov/bo ard/15day/ctr/fsor.pdf

CASA One-Page Handout on Air Toxics Reporting:

https://casaweb.org/wp-con tent/uploads/2021/06/CTR-EICG_CASAOnePageIssue-Approach_June2021.pdf

BAAQMD Rule 2-5 https://www.baaqmd.gov/rules-and-

compliance/rules/reg-2permits?rule_version=2021 %20Amendments

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
RECYCLED WATER Approximately 10 percent of the municipal wastewater of Region 2 POTWs is currently recycled. Expansion of recycled water projects is a goal of many BACWA members, but implementation is slowed by high costs, regulatory uncertainty, and administrative requirements. As of 2020, virtually all recycled	 As of 2018, the State Water Board has adopted uniform water recycling criteria for two types of Indirect Potable Reuse: surface water augmentation and groundwater augmentation. Regulations for Direct Potable Reuse are under development. The State Water Board is required to adopt criteria for raw water augmentation by 	Next Steps for BACWA Review draft regulations for Direct Potable Reuse and Onsite Non-potable Reuse and work through Recycled Water committee to develop comments, as needed. Track California legislation with potential impacts on recycled water funding, mandates, or regulations.	Water Boards Recycled Water Policy and Regulations https://www.waterboards. ca.gov/water_issues/prog rams/recycled_water/ "Purple Book" of Recycled Water Regulations
As of 2020, virtually all recycled water in Region 2 was produced at centralized facilities using municipal wastewater, and was treated to meet standards for non-potable reuse.	 Posterial for raw water augmentation by December 31, 2023. By the end of 2022, the State Water Board is required to adopt risk-based water quality standards for onsite treatment and reuse of non-potable water in multi-family, mixed use, and commercial buildings. San Francisco has already begun to implement a similar Onsite Non-Potable Reuse program for large developments in the city. BACWA is currently completing a Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling, as required by the 2nd Nutrient Watershed Permit. 	• For the study of nutrient removal via recycled water, review barriers and challenges to recycled water expansion identified by the study, and strategize next steps.	https://www.waterboards. ca.gov/drinking_water/cer tlic/drinkingwater/docume nts/lawbook/rwregulations .pdf August 2021 Draft DPR Regulations https://www.waterboards.c a.gov/drinking_water/certlic /drinkingwater/docs/2021/a ug2021addendum_ep.pdf

Previously covered issues with no updates can be found in previous **BACWA** issues summaries.

ACRONYMS

ADC Alternate Daily Cover

BAAQMD Bay Area Air Quality Management District

BACT Best Available Control Technology

BTU/SCF British thermal units per standard cubic foot

CARB California Air Resources Board

CASA California Association of Sanitation Agencies

CAP Criteria Air Pollutant

CEC Compound of Emerging Concern

CIWQS California Integrated Water Quality System

Attachment No. 13.b

CVCWA Central Valley Clean Water Agencies
CWEA California Water Environment Association

DDW Division of Drinking Water, State Water Resources Control Board

EC25/IC25 25% Effect Concentration/25% Inhibition Concentration ELAP Environmental Laboratory Accreditation Program

ELTAC Environmental Laboratory Technical Advisory Committee

EPA United States Environmental Protection Agency
FIFRA Federal Insecticide, Fungicide, and Rodenticide Act

FY Fiscal Year GHG Greenhouse Gas

HRSA Health Risk Screening Analyses

HRA Health Risk Assessment

MCL Minimum Contaminant Level (Drinking Water)

MGD Million Gallons per Day

NACWA National Association of Clean Water Agencies

NELAC National Environmental Laboratory Accreditation Conference

OAL Office of Administrative Law

OEHHA Office of Environmental Health Hazard Assessment

PCB Polychlorinated Biphenyl

PFAS Per- and Polyfluoroalkyl Substances

PFBS Perfluorobutane Sulfonic Acid

PFOA Perfluorooctanoic Acid

PFOS Perfluorooctane Sulfonic Acid POTW Publicly Owned Treatment Works

PS Prioritization Score

RMP Regional Monitoring Program
RPA Reasonable Potential Analysis

SCAP Southern California Alliance of POTWs

SF Bay San Francisco Bay

SFEI San Francisco Estuary Institute

TAC Toxic Air Contaminant
TMDL Total Maximum Daily Load
TIN Total Inorganic Nitrogen
TNI The NELAC Institute
TST Test of Significant Toxicity

WQBEL Water Quality Based Effluent Limitation

WQO Water Quality Objective

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ITEM NO. 14 GENERAL MANAGER'S REPORT

Action Requested

None at this time. This is an information item only.

Summary

The General Manager's (GM) tenure began on April 17, 2014. A two-year extension was approved on April 20, 2016, a three-year extension was approved on February 21, 2018, and an additional three year extension was approved on February 17, 2021. The agreement requires a report on hours worked during the fiscal year at each Board meeting. There is a limitation of 1,000 hours per fiscal year. For the fiscal year ending June 30, 2022 the General Manager has billed LAVWMA approximately 375 hours. The level of effort for FYE22 is normal, considering the number of capital projects to complete over the next two years.

In addition to the brief descriptions below, there are several items of interest for the Board's review:

1. Asset Management.

Asset Management continues to proceed. DSRSD staff are continuing to revise the GIS in order to increase accuracy of the locations of pipelines and appurtenances. They have going through the effort of documenting the manhole types in GIS to show where the new composite covers are installed. They have installed "SmartCover" Lids on a couple of locations. Maintenance staff have applied 30-50 asset QR tags and continue on others. The QR tags can be scanned to allow work orders to be entered into the maintenance management system. The focus for the near term will be to make sure that all of the LAVWMA pipeline assets that are in Lucity are tied to the GIS. Right now they are two separate things. Which means you can't click on something in GIS and bring up its Lucity record. Another key effort will be to get the new MCC equipment entered into the system.

DSRSD staff strives to maintain and improve upon the data in the maintenance management system, CSAM, that drives the replacement modeling. Once all of the Pipeline information is organized and in concert with the GIS we will be able to do more from an analysis perspective. A Business Risk Evaluation is the next step once the GIS work is completed. This would allow us to start work on development of Consequence of Failure and Probability of failure in order to define the critical assets within the system. This will provide the basic backbone of the asset management plan for the LAVWMA export/interceptor system and give us a place to move forward. This will ensure that the LAVWMA system is going to be able to comply with future regulatory requirements related to Asset Management.

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2. Records Management Project.

The project itself has been completed. The Administrative Assistant search is still on hold pending a return to normalcy once COVID-19 is behind us. It looks like that may be fairly soon. Files are backing up and not being entered into the system. This would include agendas, minutes, resolutions, agreements, and other items. This is not as much of a problem as it may appear as it would only take a few hours to get everything entered into the system and filed. EBDA has recently hired a parttime administrative person and that person could also possibly work for LAVWMA. This will be checked in the next month or two.

3. Wastewater Agency Response to COVID-19

Member Agency staff continue to follow all current guidelines issued by the Governor and Alameda County. Plans are underway for staff to begin returning to the office under prescribed conditions. The Omicron variant infections appear to be easing significantly. Mask requirements indoors are also easing.

4. FYE21 Capital Project Planning

Please refer to the Action Item List, **Attachment No. 14.a** for a status report on all capital projects for FYE22. The General Manager is working closely with DSRSD staff to ensure that projects are managed as effectively as possible. The Action Item List has been modified to track all capital projects in addition to other key tasks.

5. Succession Planning

Work on this task is on target. A job description has been reviewed by the Staff Advisory Group (SAG). The succession plan includes the following elements: 1) interfacing with staff at the member agencies to identify key persons to assist a new General Manger in the transition, and 2) identifying which member agency staff will fill in on a temporary basis if the General Manager becomes unavailable to serve. It is anticipated that a Request for Qualifications/Proposal for a new General Manager will be issued approximately one year before the incumbent's current agreement ends, April 17, 2024. This should allow adequate time for a transition and potential overlap between the two individuals.

6. FYE23 Insurance Estimate

Please refer to **Attachment No. 14.b**, a January 18, 2022 letter from the Agency's insurance carrier, SDRMA, 2022-23 Property/Liability Early Budget Estimates. The letter indicates that the insurance premium for FYE23 will be approximately \$100,000. Insurance costs have been increasing well above the rate of inflation largely due to the huge losses insurance carriers have suffered over the last few years due to fires. The budget for FYE21 was \$56,400 and the budget for FYE22 is \$84,000. The year to year increase is 48.9% and 19.0%, so at least the rate of increase is decreasing. The \$100,000 estimate will be used in the FYE23 budget planning process.

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7. Form 700 Submission

Form 700s need to be completed annually by each Board member and alternate. The form submitted to their own City/Agency can be used for the LAVWMA 700. All that is needed is a cover page completed for LAVWMA and signed by the member or alternate. The LAVWMA cover page should have the full form attached to it.

Following is a brief description of major activities since the November 17, 2021 Board meeting:

- Attended LAVWMA O&M meetings with DSRSD, Livermore and Pleasanton staff. Recent meetings have been Zoom web meetings.
- Updated Capital Project Planning and Action Item List.
- Prepared items for the November 2021 and February 2022 Board Meeting Agendas and prepared packets for distribution. Posted same on the website.
- Drafted minutes from November 2021 Board meetings and revised based on comments received. Posted approved minutes on the website.
- Provided input for and reviewed draft financial statements for FYE22.
- Managed various capital projects, including reviewing all documents, submittals, RFIs, contract change orders, invoices, etc. Major projects include the MCC replacement, pump purchase, and SLSS improvements project.
- Worked with MCC team to finalize a spare parts list for the MCC project.
- Worked with MCC team and DSRSD staff to assign change order values to bid items in the agreement.
- Continued working with DSRSD staff for pipeline inspection project to begin spring 2022.
- Worked with DSRSD staff regarding potential recycled water projects.
- Logged into DSRSD system to review and approve invoices and review and respond to emails.
- Reviewed, made minor edits, and commented on DSRSD's 2nd quarter O&M report.
- Continued reviewing PG&E bills to ensure they are using the proper rate schedule.
- Met with company providing service to PG&E regarding an incentive program to reduce electricity use during high demand days. Program will not work for us as we already avoid pumping during those periods.
- Participated in annual wet weather coordination meeting.
- Downloaded Form 700 for 2021, edited cover page for use by Board members and alternates and sent with information on how to file for LAVWMA.
- Worked with Livermore staff and General Counsel regarding an expansion project to unincorporated areas.
- Worked with General Counsel to finalize the agreement with Trillium and review their insurance documentation. Coordinated agreement signatures via DocuSign.

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- Received, reviewed, and updated for LAVWMA General Counsel's public works contract template for 2022.
- Participated in HydroScience 30% design review meeting for the SLSS project. Coordinated response to questions from DSRSD staff.
- Worked with HydroScience and General Counsel to prepare Amendment No. 1 to Hydro Science's agreement.
- Reviewed and corrected financial report to Secretary of State as prepared by the auditor.
- Made updates to website as needed for files and legal requirements.
- Reviewed and commented on Regional Water Board inspection reports for DSRSD plant and LAVWMA system.
- Kept SAG members informed on various issues and projects. Prepared agenda and hosted SAG meeting on February 11, 2022.
- Continued to work with General Counsel to track legislation of interest to LAVWMA and the member agencies.
- Worked with DSRSD staff, DTN Engineers, and Psomas on the MCC replacement project. Attended project update meetings. Reviewed all documents and correspondence between contractor, design engineer, and construction manager, including submittals, responses, requests for information, responses, and various technical reports required by the project. Approved fourth contract change orders for a total of \$34,738, 1.68%.
- Reviewed Trillium's submittal for the pump design and communicated with design engineer regarding review of same.
- Continued working with DSRSD staff as they implement procedures responding to the new PG&E time of use schedule. DSRSD staff has done an excellent job during the summer period which has both peak and partial peak periods lasting from 2:00 p.m. to 11:00 p.m. Two pumps only have been used to pump fairly steadily during the off peak hours. This has greatly reduced cycling of the pumps.
- Monitored progress of other pump station and O&M projects managed by DSRSD staff.
- Reviewed and approved invoices for MCC design, Royal Electric, MCC construction management, SLSS design, and corrosion control project for payment by DSRSD.
- Continued to Discuss Asset Management issues with DSRSD staff. LAVWMA will follow their lead.
- Worked with DSRSD staff on various inquiries regarding projects near the forcemain to ensure there would be no issues of concern with the integrity of the forcemain.
- Reviewed and provided comments on EBDA's disinfection master plan. Attended Zoom meetings and provided requested data.
- Tracked progress of Corrpro cathodic protection project on the pipelines.
- Continued working on coordinating a replacement for Sue Montague when she retires. Temporarily on hold pending COVID-19 issues.
- Attended EBDA Managers Advisory Committee (MAC) meetings. Made notes of same and shared with SAG members.

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- Participated in NPDES permit renewal process for EBDA, DSRSD, and Livermore.
- Prepared and submitted monthly invoices for LAVWMA General Management services.
- Logged into Samsara website at various times to monitor pump station and flows.
- Reviewed and approved DSRSD monthly invoices for O&M services.
- Continued working with EBDA and LAVWMA agency staff to address enterococcus issues.
- Used DocuSign system for Board Resolutions, Agreements, minutes, and other documents.
- Reviewed EBDA and DSRSD agenda packets.
- Responded to various emails and phone calls from outside agencies and organizations.

Next Meeting

The next Regular Board meeting is scheduled for May 18, 2022.

Recommendation

None at this time. This is an information item only.

Attachments

14.4 Action Item List

14.b SDRMA Letter

LAVWMA Action Item List Month: Feb-22

ns for February 16, 2022 LAVWMA Board Meeting.	Responsible Party	Due Date	Status	Completion Date
	SAG	NA	Primary activity since the last Board meeting has been management of capital projects. SAG to be updated on projects prior to Board meeting.	
perations Coordination Committee Task	Responsible Party	Due Date	Status	Completion Date
E21 Replacement Projects: See Items Below	Weir/Zavadil/Delight	Various dates	Refer to information below.	Date
CC and Soft Starter Replacement Project. Carryover from FYE20 and DFYE21. Estimated design cost \$250,000. Project now includes Electrical provements to the Main Switchgear at the Pump Station. Total estimated at \$2,300,000 - \$2,500,000.	l Weir/Atendido	12/31/2021	Project is nearly complete. All submittals and RFIs have been addressed. Royal Electric moved on site July 6, 2021. The schedule has extended to December 11, 2021 to account for having to demo and pour a new concrete pad for MCC-P1. Both MCCs have been completed and are in serivce. There have been four contract change orders issues at a cost of \$34,738 or 1.68% of the contract price. Remaining items are all punch list related and include some programming of instrumentation and controls.	Expected by 2/28/22
rchase Three New Pumps and Rebuild Two Associated Motors. imated cost has increased to \$460,000	Weir/Quinlan	6/30/2022	Bid packet was posted and distributed on July 6, 2021. A mandatory prebid meeting was held on July 15, 2021 and was attended by four pump vendors. Addendum No. 1 was issued on August 2, 2021. Four bids were received by the deadline of August 5, 2021. Bids ranged from \$357,057 to \$941,200. Trillium submitted the low bid. References have been contacted and have been positive. Budget Modification No. 1 to increase the project cost was approved by the Board August 18, 2021. The Board had two special meetings in September to provide direction. All bids sere rejected and the GM and General Counsel were directed to negotiate the best deal with the low bidder Trillium. The contract was fully executed with Trillium on December 9, 2021 at the original bid price. There are still minor issues being respoved with the insurance documentation, but the project is proceeding. Trillium's Pump Submittal Package was received on January 21, 2022. LAVWMA's design engineer is currently reviewing and will have a response the week of February 7, 2022.	,
sealing of all Three Storage Basins. Estimated cost \$200,000	Quinlan	12/31/2020	Project is complete. Some issues due to water getting under some of the seal areas. Area has been cleaned and all three basins are in service and will be fine through the winter. Solutions will be reevaluated after wet weather.	5/1/2021
n Leandro Sample Station Design Improvements. Estimated cost 70,000	Weir	6/30/2022	The RFP for engineering services was posted to the website on June 28, 2021. A non-mandatory site visit is scheduled for June 13, 2021. Proposals were due 5:00 p.m. Monday, July 26, 2021. HydroScience (HS) was the only one to submit a bid. SAG members reviewed and rated the proposal; average score of 81.5 out of 90. HS was awarded the contract at a total of \$185,000. HS has held a kickoff meeting and has been to the site several times taking measurements, talking to DSRSD staff, and taking pictures. A 30% design memo should be received this week. Due to COVID-related issues, including inflation and supply chain issues, the engineer's estimated cost of the project has increased approximately 40% from the original estimate. The total project cost will likely need to be increased to at least \$900,000. Since the construction will take earry over into the next fiscal year, increasing the project cost can occur during the next budget approval process. DSRSD staff has reviewed the new estimated costs and has found it reasonable. The 90% design is nearing completion. Sue to additional needs through the 30% design process the engineering costs are also increasing by 44,800 or 24.2% above the original budget. The Board will consider an amendment to the agreement in February.	
ad Drainage Improvements at the Pump Station. Estimated cost \$35,000	TBD	12/31/2020	To be combined with similar projects at DSRSD.	
thodic Protection Projects. Estimated cost \$185,000	Weir/Atendido	12/31/2020	Corrpro has completed most items that did not require any excavation. Permits have been received for three projects needing excavation and were provided to Corrpro. They are in the process of scheduling their work. Corrpro had planned to begin the week of November 1, but had to cancel due the inability to get certain equipment for excavation to the site.	
C Upgrade at the Pump Station. Estimated cost \$300,000	TBD	6/30/2021	Will be included in DSRSD SCADA project, which is design build. Project has begun. Scoping meetings with staff have been held and the project is still in development.	
beline Inspection. Estimated cost \$100,000	TBD	6/30/2021	Scope will be based on the results and recommendations of the HydroScience (National Plant Services) inspection project. Inspection site selection will begin soon. A planning meeting with DRSD staff was held in early November. The project will likely occur after the rainy season.	
art Detectors on High Maintenance Air/Vac and Air Release Valves. imated cost \$40,000	TBD	6/30/2021	installed for testing and have proven to be beneficial. Three additional units were ordered to be used in areas that could cause problems if there were leaks.	
wiring the actuators on the pump deck. Estimated cost \$50,000.	Atendido	12/31/2021	Royal Electric provided a change order estimate of \$10,500, which has been issued.	
ier items			DSRSD Operations successfully managed the storm on October 24 and 25, 2021. The basins were emotied in	
et Weather Issues	Sevilla	10/31/2020	advance of the storm. Both MCCs happened to be available. A maximum of seven pumps were run to send flow to EBDA. Operations has indicated that had MCC-P1 not been available they still would have been able to manage the storm through a combination of pumping and storage.	
	Sevilla/Atendido	TBD	A test was conducted on November 3, 2021. There were no significant issues encountered during the test. The SLSS design engineer was on site and gathered valuable information that will assist in the upgrade design.	
re test of SLSS system	1	i e	Trest postponed due to COVID-19. Was planning on this winter, but will likely be delayed until 2022 due to COVID-	1
re test of SLSS system re test of Alamo Canal discharge during wet weather	Carson/Sevilla	TBD	19.	
<u> </u>	Carson/Sevilla Quinlan Sevilla	TBD 6/30/2019	19. Gate is in good shape but won't fully close. No date set, perhaps this winter. No issues at this time.	
thodic Protection Projects. Estimated cost \$185,000 C Upgrade at the Pump Station. Estimated cost \$300,000 eline Inspection. Estimated cost \$100,000 nart Detectors on High Maintenance Air/Vac and Air Release Valves. imated cost \$40,000 wiring the actuators on the pump deck. Estimated cost \$50,000. her Items	Weir/Atendido TBD TBD TBD Atendido Sevilla Sevilla/Atendido	12/31/2020 6/30/2021 6/30/2021 6/30/2021 12/31/2021 10/31/2020	and has found it reasonable. The 90% design is nearing completion. Sue to additional needs through the 30% design process the engineering costs are also increasing by 44,800 or 24.2% above the original budget. The Board will consider an amendment to the agreement in February. To be combined with similar projects at DSRSD. Corrpro has completed most items that did not require any excavation. Permits have been received for three projects needing excavation and were provided to Corrpro. They are in the process of scheduling their work. Corrpro had planned to begin the week of November 1, but had to cancel due the inability to get certain equipment for excavation to the site. Will be included in DSRSD SCADA project, which is design build. Project has begun. Scoping meetings with staff have been held and the project is still in development. Scope will be based on the results and recommendations of the HydroScience (National Plant Services) inspection project. Inspection site selection will begin soon. A planning meeting with DRSD staff was held in early November. The project will likely occur after the rainy season. The smart detectors are intended to help prevent leaks from the valves along the forcemain system. Three have been installed for testing and have proven to be beneficial. Three additional units were ordered to be used in areas that could cause problems if there were leaks. Royal Electric provided a change order estimate of \$10,500, which has been issued. DSRSD Operations successfully managed the storm on October 24 and 25, 2021. The basins were emptied in advance of the storm. Both MCCs happened to be available. A maximum of seven pumps were run to send flow to EBDA. Operations has indicated that had MCC-P1 not been available they still would have been able to manage the storm through a combination of pumping and storage. A test was conducted on November 3, 2021. There were no significant issues encountered during the test. The SLSS	



1112 | Street, Suit Attachment No. 14.b

Sacramento, California 95814-2865 T 916.231.4141 or 800.537.7790 * F 916.231.4111

Maximizing Protection. Minimizing Risk. *www.sdrma.org

January 18, 2022

Livermore-Amador Valley Water Management Agency Mr. Chuck Weir General Manager 7051 Dublin Boulevard Dublin, California California

Re: 2022-23 Property/Liability Early Budget Estimates

Dear Mr. Weir,

In preparation for the 2022-23 Property/Liability Program renewal on July 1, 2022, we are providing our program members with a preliminary renewal contribution estimate to help with budget planning for the 2022-23 fiscal year. We will continue to provide updates as we obtain renewal cost information from our program excess/reinsurers over the next few months. Final contribution amounts will not be confirmed until we issue the 2022-23 renewal invoices in early June.

Your agency's Property/Liability 2022-23 estimated contribution is **\$96,448** to **\$100,770** based on the following assumptions:

- A 5% increase in operating budget from the 2021-22 program year
- Your agency's current exposures and losses currently on record with SDRMA, which include a 19.72% increase to the value of scheduled buildings and 14.17% increase to the value of scheduled contents *
- Pool reinsurance rate increases of 12.5% to 25% based on early estimates from our reinsurance brokers
- Credit Incentive Program (CIP) points for 2021-22 that your agency may have earned are not yet calculated and, therefore, not considered in this estimate
- * Per board policy, SDRMA trends property values based on trending factors published by Marshall & Swift as set forth in the fourth quarter of the prior calendar year. Marshall & Swift trending factors can represent increases or decreases to property values to reflect inflation of construction, building materials and other costs associated with replacement or repair of damaged property. Trending factors apply to both buildings/structures and contents. Properties added to your policy during the current policy year or appraised within the last year will not be impacted by the trending factors until the next renewal for 2023-24.



This budget estimate is specifically provided to assist you with preliminary budgeting and is NOT a renewal indication, renewal quote, or a "not-to-exceed" contribution. The final renewal contribution amount may be in excess of this estimate depending on the changing conditions of the insurance market over the next few months. Since we do not have the 2022-23 renewal rates from the program excess/reinsurers, we recommend you budget towards the upper end of the range, plus any differences in exposure or losses which have not yet been reported to SDRMA.

Once we receive your agency's 2022-23 Renewal Questionnaire in February, with updated exposure information, we will distribute an updated budget estimate. If you make any substantial changes to your policy over the next few months, and would like an updated contribution estimate, please contact our Finance Department at accounting@sdrma.org or 800.537.7790.

Members considering withdrawal from coverage with SDRMA for the 2022-23 program year are required to submit a "Notice of Intent to Withdraw" by April 1, 2022 in accordance with SDRMA Bylaws and must have completed the initial three full program year commitment period. If you have any questions about withdrawing from our program, please contact Ellen Doughty at edoughty@sdrma.org or 800.537.7790.

On behalf of the SDRMA Board of Directors and our entire risk management team, we thank you for your continued participation in our programs.

Sincerely,

Special District Risk Management Authority

Laura S. Gill, ARM, ARM-P, CSDM

Laure S. Hill

Chief Executive Officer