Livermore-Amador Valley Water Management Agency

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

Wednesday, November 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/83475474408

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

Meeting ID: 834 7547 4408

One tap mobile if using audio only from a telephone and not a computer
+1 669 900 9128 - 83475474408# 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 5 – 8

6.a. Board Meeting Minutes for the August 17, 2022 meeting
(The Board will consider approving the minutes from the August 17, 2022 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– 15 (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 strong recommendation by local health authorities to hold public meetings online, and/or the imminent health and safety risks of meeting in person, and the limitations of the meeting spaces available to LAVWMA to maintain social distancing or hold meetings outdoors, 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 **8.** **Financial Reporting for the Fiscal Year Ending June 30, 2023**

Pages 16 – 21 (The Board will review the Financial Reports and other financial items for the Fiscal Year ending June 30, 2023.)

Action **9.** **Acceptance of the Audit Report for Fiscal Year Ending June 30, 2022**

Pages 22 – 64 (The Board will consider accepting the Audit Report for the Fiscal Year ending June 30, 2022 as prepared by Maze & Associates.)

Resolution **10.** **Third Amendment to the Agreement with Dublin San Ramon Services District for Treasurer Services and Appointment of Herman Chen as Assistant Treasurer**

Pages 65 – 69 (The Board will consider approving an amendment to the Agreement with Dublin San Ramon Services District for Treasurer Services and appointment of Herman Chen as Assistant Treasurer.)

Information **11.** **LAVWMA Quarterly Report of Operations, 1st Quarter, FY2022-2023**

Pages 70 – 94 (The Board will review the Quarterly Report of Operations, 1st Quarter, FY2022-2023.)

Information **12.** **Project Status Reports - Motor Control Center Replacement Project, Purchase of Three Vertical Turbine Pumps, and the San Leandro Sample Station Improvements Project**

Pages 95– 96 (The Board will receive status reports on projects at the Export Pump Station and the San Leandro Sample Station.)

Information **13.** **Project Status Reports – PG&E Electrical Service Reliability and Photo Voltaic / Battery Storage Options**

Pages 97– 159 (The Board will receive status reports on PG&E Electrical Service Reliability and Photo Voltaic / Battery Storage Options.)

Action **14.** **Authorization for the General Manager to Enter into a Memorandum of Agreement to Participate in the Regional Purified Water Pilot Project – Phase 2**

Pages 160– 163 (The Board will consider authorizing the General Manager to Enter into a Memorandum of Agreement to Participate in the Regional Purified Water Pilot Project – Phase 2. This is a cooperative agreement and does not commit LAVWMA to any projects or to expend any funds.)

Information **15.** **Update and Response to Various Legal and Legislative Issues**

Pages 164 – 192 (The Board will receive a report regarding proposed legislation and legal developments affecting LAVWMA and its member agencies.)

Information **Pages 193 – 198**

16. General Manager's Report

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

Information

17. 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.)

18. Next Regular Board Meeting, Wednesday, February 15, 2023, 6:00 p.m.

19. 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/83475474408 Meeting ID: 834 7547 4408
For audio only via telephone, dial 1 669 900 9128 then enter the following code 83475474408#

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.

CEQA NOTICE:
Unless expressly stated otherwise on the agenda (that a negative declaration, mitigated negative declaration, or environmental impact report is being considered), discretionary actions taken on agenda items will include a finding by the Board that the action is exempt under the California Environmental Quality Act (CEQA). More information about the CEQA determination can be found in the corresponding staff report.

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LAVWMA

Livermore-Amador Valley Water Management Agency

DRAFT

Minutes

Special Meeting of Board of Directors

Wednesday, August 17, 2022

Pursuant to AB 361, this was a web meeting available to participants and the public through the following link: https://us02web.zoom.us/j/86261517496

6:00 p.m.

1. Call to Order

Chair Julie Testa called the meeting to order at 6:00 p.m.

2. Pledge of Allegiance

The Pledge of Allegiance, led by Vice Chair Carling, was recited.

3. Roll Call

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

Staff Present: General Counsel Alexandra Barnhill, DSRSD Operations Director Jeff Carson, Livermore Water Resources Manager Anthony Smith, and General Manager Chuck Weir

Staff Absent: Treasurer Carol Atwood

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 June 29, 2022 LAVWMA Board Meetings

Director Bonanno 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 previously described this issue, including the expiration of the Governor's Executive Order that temporarily allowed remote meetings, the 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, a decision by DSRSD to make all meetings in its chambers remote through September and an order from the Contra Costa County Public Health Department, which was updated on August 9, 2022, 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. Following discussion, the Board agreed to hold the November 16, 2022 meeting via Zoom.

Director Johnson motioned, seconded by Director Arkin, to approve Resolution No. 22-04 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

General Manager Weir informed the Board that since the prior fiscal year has just ended and the current fiscal year has just started there is no formal quarterly financial report for FYE22. At the November 16, 2022 Board meeting the annual financial audit will be presented and it will include the final fourth quarter financial report for FYE22. The first quarter financial report for FYE23 will also be presented. The packet also included the preliminary O&M Expenses for FYE22. Total expenses are at 85.03% of plan. There was a typo in the table that will be corrected in the file copy and the website.

9. LAVWMA Quarterly Report of Operations, 4th Quarter, FY2021-2022

General Manager Weir provided an overview of the report and noted the various charts showing pump performance, electrical usage, and maintenance activities. This was an information item only requiring no action by the Board. There was discussion regarding available recycled water for the proposed residential filling station and how Livermore would be providing recycled water for the project. The three member agencies continue to determine an acceptable location for the fill site that provides easy access and does not cause traffic problems. This was an information item only requiring no action from the Board.

10. 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 Notice of Substantial Completion was issues on August 8, 2022. All equipment has been installed, is in service, and is operating as designed. He noted the remaining punch list items are minor and should be completed by the end of August. He then noted that the new pumps were scheduled to be delivered December 16, 2022. He then discussed the San Leandro Sample Station (SLSS) project and noted that comments on the 75% design plans and specs have been submitted to the design firm.

General Manager Weir noted that the agreement with DTN engineers for the MCC design has been amended to provide for updating the 2015 solar panel feasibility study. The current study will also look at battery storage and grant/funding options for government agencies. Both DSRSD Operations Director Carson and General Manager Weir discussed recent PG&E outages at the pump station. Outages have been as long as thirteen hours. This is not a problem during dry weather since there is adequate storage. However, if this occurred during a severe storm it is likely that there would be an unpermitted discharge to Alamo Canal, which could result in substantial fines and/or citizen suits. All options to address this issue are being considered, including solar/battery storage, replacement of the transformers to allow automatic switching from one feeder to the other, and onsite diesel generators. Additional information and recommendations will be presented to the Board for consideration at the November 16, 2022 Board meeting.

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

11. Update and Response to Various Legal and Legislative Issues

General Manager Weir provided an overview of the August 2022 updates from CASA and BACWA. The reports include updates on items of interest to water and wastewater agencies including PFAS, nutrients, microplastics and various other issues. He noted the bar chart showing PFAS concentrations in various consumer products including packaging and cosmetics as well as biosolids. The concentration in biosolids is several orders of magnitude less than the other items. Board members expressed concern with the PFAS concentrations in cosmetics and wondered why they were there. General Manager Weir stated that he did not know but that he would do some research and send information to the Board.

General Counsel Barnhill highlighted legislation that is being considered to amend the Brown Act to address remote meetings for public agencies. There is only a single bill remaining on this topic. Public agencies and industry groups are split on their support for the bill. Some believe the restrictions on the ability of officials to participate remotely and the administrative burden on staff in this bill outweigh any benefit it provides in terms of having flexible meeting locations.

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

12. General Manager's Report

General Manager Weir highlighted several areas of his report, including asset management, succession planning, capital projects, and PG&E usage. He again complemented DSRSD staff for their operation of the pump station to avoid excessive PG&E costs. He discussed the various charges on the PG&E bills and identified how DSRSD staff has identified opportunities to avoid demand charges by managing pumping on only one feeder during the billing period. Dry weather operation requires two pumps. To avoid demand charges there are three options for the full billing period: 1) run two pumps only on Feeder A, 2) run two pumps only on Feeder B, or 3) run one pump on each feeder.

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

13. Matters From/For Board Members
There were no matters from the Board.

14, Next Regular Board Meeting, Wednesday, November 16, 2022 at 6:00 p.m.
The Board previously agreed to hold the November 16, 2022 meeting via Zoom.

There were no comments from the public.

21. Adjournment
There being no further action, Chair Testa adjourned the meeting at 6:52 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
November 16, 2022

ITEM NO. 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

Action Requested
Approve Resolution No. 22-05 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 two years, 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.

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. 22-05 be adopted as these findings can be made. 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.
- Due to the recent surge of cases of COVID-19, flu, and RSV, Bay Area hospital are running out of ICU beds for children. Not all individuals can be vaccinated against COVID-19 and/or flu due to health status or age. There is no RSV vaccination.
- 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 reducing exposure 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 Omicron 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" (revised 10-4-2022) which provides that online meetings are encouraged 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

At the June 29, 2022 meeting, the Board approved changing the official meeting location from City of Pleasanton to DSRSD's Board room. The Board also determined that the August 17, 2022 meeting could be held in person following DSRSD's lead for meeting management. However, due to a spike in COVID-19 cases, DSRSD returned to teleconference meetings through September 1, 2022. DSRSD is now holding in person meetings. At the August 17, 2022 meeting, the Board decided to continue holding Zoom meetings as long as COVID restrictions allowed. As a consequence, this meeting is being held via Zoom. The Board will need to determine whether or not to return to in person meetings for the next regular meeting scheduled for February 15, 2023.

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. 22-05 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. 22-05 Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the Livermore-Amador Valley Water Management Agency Pursuant to Brown Act Provisions.

[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. 22-05

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 Omicron 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

some 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 and Omicron 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, the Board found that a state of emergency continued to exist at its next regular meeting on November 17, 2021 and authorized the continuation of remote meetings by adopting Resolution 21-09; and

WHEREAS, the Board found that a state of emergency continued to exist at its next regular meeting on February 16, 2022 and authorized the continuation of remote meetings by adopting Resolution 22-01; and

WHEREAS, more than 30 days has passed since the adoption of those Resolutions 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 at high risk of infection having severe consequences, county health officers strongly recommend that public agency meetings be held remotely to avoid unnecessary exposure during the current surge of cases, 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 November, 2022 by the following vote:

AYES:
NOES:
ABSENT:

_____
Julie Testa, Chair

ATTEST: _____
Charles V. Weir, General Manager

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

ITEM NO. 8 FINANCIAL REPORTING FOR THE FISCAL YEAR ENDING JUNE 30, 2023

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 2023

Summary
Attached are the financial statements for the period July 1, 2022 through September 30, 2022.

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 June 30, 2022 and the period July 1, 2022 through September 30, 2022.

Investment 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.

Attachments
Financial Statements for the Period July 1, 2022 – September 30, 2022.

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 2022 through September 2022

	Operation & Maintenance	EBDA Capacity	2011 Debt Service	2021 Debt Service	Repair and Replacement Reserve			Total
					Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	
ASSETS								
Cash and equivalents	$ 1,996,771	$ -	$ (4,664,252)	$ 4,691,103	$ 341,752	$ 12,110	$ 9,121	$ 2,386,605
Investments	496,427	-	30,630	30	13,896,971	433,963	1,623,452	16,481,473
Investments (LAIF FMV Adj)	3,381	-	12,470	-	(12,471)	(437)	(1,578)	1,365
Due from members	10,465	-	-	-	-	-	-	10,465
Advances to members	-	-	-	-	-	-	-	-
Capital Assets, net of accumulated depreciation	-	2,424,245	-	-	98,041,175	37,800	3,060,748	103,563,969
Bond Issuance Cost	-	-	-	408,004	-	-	-	408,004
Total assets	2,507,044	2,424,245	(4,621,152)	5,099,137	112,267,427	483,436	4,691,743	122,851,880
LIABILITIES								
Accounts payable	1,038,462	-	-	-	64,011	-	-	1,102,474
Due To Members	240,946	-	-	-	-	-	-	240,946
Interest payable	-	-	-	791,411	-	-	-	791,411
Bond issuance premium, net of amortization	-	-	-	10,097,265	-	-	-	10,097,265
Due in more than one year	-	-	-	54,790,000	-	-	-	54,790,000
Total liabilities	1,279,408	-	-	65,678,676	64,011	-	-	67,022,095
DEFERRED INFLOWS OF RESOURCES								
Gain on refunding	-	-	3,561,106	-	-	-	-	3,561,106
NET ASSETS								
Invested in capital assets, net of related debt	-	2,424,245	-	(64,887,265)	98,041,175	37,800	3,060,748	38,676,704
Unrestricted net assets	1,227,636	-	(8,182,258)	4,307,726	14,162,240	445,636	1,630,995	13,591,975
Total net assets	$ 1,227,636	$ 2,424,245	$ (8,182,258)	$ (60,579,539)	$112,203,415	$ 483,436	$ 4,691,743	$ 52,268,679

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SCHEDULE OF SUB FUND ACCOUNT ACTIVITY
July 2022 through September 2022

					Repair and Replacement Reserve			
	Operation & Maintenance	EBDA Capacity	2011 Debt Service	2021 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total
OPERATING REVENUES								
Service charges - DSRSD	$ 556,871	$ -	$ -	$ 2,194,051	$ 69,900	$ -	$ -	$ 2,820,822
Service charges - City of Pleasanton	661,933	-	-	1,876,961	69,900	-	-	2,608,794
Service charges - City of Livermore	586,435	-	-	1,569,788	60,200	-	-	2,216,423
Total operating revenues	1,805,240	-	-	5,640,800	200,000	-	-	7,646,039
OPERATING EXPENSES								
Power	212,642	-	-	-	-	-	-	212,642
LAVWMA share of EBDA O&M - Fixed	376,091	-	-	-	-	-	-	376,091
LAVWMA share of EBDA O&M - Variable	89,422	-	-	-	-	-	-	89,422
Operations agreement	256,608	-	-	-	-	-	-	256,608
Professional services	33,712	-	-	-	-	-	-	33,712
Livermore sole use O&M	4,210	-	-	-	-	-	-	4,210
Insurance	99,965	-	-	-	-	-	-	99,965
Repairs and Maintenance	-	-	-	-	-	-	-	-
Miscellaneous	219	-	-	5	1,236	39	142	1,640
Total operating expenses	1,072,869	-	-	5	1,236	39	142	1,074,290
Capital outlay	-	-	-	-	29,823	-	-	29,823
Total operating expenses and capital outlay	1,072,869	-	-	5	31,059	39	142	1,104,114
Operating income (loss)	732,370	-	-	5,640,795	168,941	(39)	(142)	6,541,926
NON-OPERATING REVENUES (EXPENSES)								
Debt Service	-	-	(5,640,799)	-	-	-	-	(5,640,799)
Interest income	554	-	10	2	3,122	98	358	4,144
Total non-operating revenues (expenses)	554	-	(5,640,789)	2	3,122	98	358	(5,636,655)
Changes in net assets	732,925	-	(5,640,789)	5,640,797	172,063	59	216	905,271
NET ASSETS (3)								
Net assets, beginning of period	494,711	2,424,245	(2,541,469)	(66,220,336)	112,031,353	483,377	4,691,527	51,363,408
Net assets, end of period	$ 1,227,636	$ 2,424,245	$ (8,182,258)	$ (60,579,539)	$ 112,203,415	$ 483,436	$ 4,691,743	$ 52,268,679

(1) Included FYE21 O&M reconciliation true-up.

(2) Total of the noted expenses is $1,166,318. Details see General Management Expenses Listing.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
Operations and Maintenance - Budget vs Actual
July 2021 - June 2022 & July - September 2022

	FYE 2022			FYE 2023		
	Budget	Actual	Variance	Budget	Actual	Variance
OPERATING REVENUES						
Service charges - DSRSD	$ 1,113,743	$ 1,113,743	$ -	$ 1,133,248	$ 556,871	$ (576,375)
Service charges - City of Pleasanton	1,323,867	1,323,867	-	1,382,392	661,933	(720,457)
Service charges - City of Livermore	1,172,870	1,172,870	0	1,199,706	586,435	(613,272)
Service charges - Reconciled		(230,481)	(230,481)			
Total operating revenues	3,610,480	3,379,998	0	3,715,346	1,805,240	(1,910,105)
OPERATING EXPENSES						
Power	1,250,000	1,360,016	110,016	1,500,000	212,642	(1,287,358)
LAVWMA share of EBDA O&M - Fixed	689,052	732,771	43,719	676,965	376,091 (2)	(300,874)
LAVWMA share of EBDA O&M - Variable	150,828	116,432	(34,396)	160,959	89,422 (2)	(71,538)
Operations agreement	1,011,500	793,133	(218,367)	927,500	256,608	(670,892)
Professional services	380,100	223,324	(156,776)	329,917	33,712 (2)	(296,205)
Livermore sole use O&M	25,000	22,538	(2,462)	25,000	4,210	(20,790)
Insurance	84,000	102,358	18,358	96,926	99,965 (2)	3,040
Permits	20,000	-	(20,000)	23,078	-	(23,078)
Repairs and Maintenance	-	34,574	34,574	-	-	-
Miscellaneous	-		-	-	219	219
Total operating expenses	3,610,480	3,385,144	(225,336)	3,740,345	1,072,869	(2,667,476)
Capital outlay			-			-
Total operating expenses and capital outlay	3,610,480	3,385,144	(225,336)	3,740,345	1,072,869	(2,667,476)
Operating income (loss)	-	(5,146)	225,336	-	732,370	757,371
NON-OPERATING REVENUES (EXPENSES)						
Interest income	-	5,146	5,146	-	554	554
Total non-operating revenues (expenses)	-	5,146	5,146	-	554	554
Net Income	$ -	$ (0)	$ 230,482	-	732,925	757,926

(1) Included FYE21 O&M reconciliation true-up.

(2) Total of the noted expenses is $599,190. Details see General Management Expenses Listing.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
Treasurer's Report
Portfolio Summary
September 30, 2022

Investments	Par Value	Market Value	Book Value	% of Portfolio	Avg. Term	Avg. Days to Maturity	YTM	Credit Rating
LAIF- Operating	$ 16,481,473	$ 16,481,473	$ 16,481,473	100.00	1	1	1.35%	N/A
	$ 16,481,473	**$ 16,481,473**	**$ 16,481,473**	**100.00**	**1**	**1**	**1.35%**	**N/A**

Average Daily Balance $ 16,481,473
Effective Rate of Return **1.35%**

I certify that this report reflects all Government Agency pooled investments and is in conformity with the investment policy of the 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, Treasurer

Date

Livermore-Amador Valley Water Management Agency
General Management Expenses Listing
July 2022 - October 2022

Invoice Date	Vendor Name	Invoice#	Description	Check#	Date Paid	Total Amount
8/31/2022	JARVIS, FAY & GIBSON	16925	GENERAL COUNSEL SVCS - Aug. 2022	200409	8/31/2022	$ 3,005.00
7/31/2022	JARVIS, FAY & GIBSON	16820	GENERAL COUNSEL SVCS - JULY 2022	200208	7/31/2022	$ 5,410.00
8/2/2022	WEIR TECHNICAL SERVI	LAVWMA_07-22	LAVWMA MANAGEMENT SERVICES - JULY 2022	200187	8/2/2022	$ 9,710.15
9/1/2022	WEIR TECHNICAL SERVI	LAVWMA_08-22	LAVWMA MANAGEMENT SERVICES-FY23 - AUG	200296	9/1/2022	$ 12,579.20
6/10/2022	SDRMA	72144	MEMBER #7119 PROPERTY/LIABILITY PROGRAM	200076	6/10/2022	$ 99,965.44
7/1/2022	EAST BAY DISCHARGERS	3315	Variable O&M Costs - July 1, 2022 - 1st Qtr	200043	7/1/2022	$ 465,512.50
						$596,182.29

Expenses from journal entry and payroll:

Postage	$0.00
DSRSD Board Members	$0.00
Admin Support	$305.64
Accounting	$2,702.04
	$3,007.68

TOTAL: $ 599,189.97

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

ITEM NO 9 ACCEPTANCE OF THE AUDIT REPORT FOR FISCAL YEAR ENDING JUNE 30, 2022

Action Requested
Accept the Audit Report for the Fiscal Year ending June 30, 2022 as prepared by Maze & Associates.

To: LAVWMA Board of Directors

From: Carol Atwood, LAVWMA Treasurer

Subject: Audit Report for Fiscal Year Ending June 30, 2022

Summary
Maze & Associates prepared and submitted the FYE 2022 Audit consisting of the attached Basic Financial Statements and the Memorandum on Internal Control and Required Communications (MOIC). LAVWMA received a clean audit opinion on its financial statements this year. The MOIC is intended for the sole use of management and the Board of Directors. The MOIC concluded that there were no observations or recommendations in this year's Audit requiring action by LAVWMA.

A representative from Maze & Associates will attend the meeting to answer any questions from the Board.

Recommendation
It is recommended the Board accept the Audit Report for the Fiscal Year ending June 30, 2022 as prepared by Maze & Associates.

Attachments
1. Livermore-Amador Valley Water Management Agency Basic Financial Statements for the Years Ended June 30, 2022 and June 30, 2021.
2. Livermore-Amador Valley Water Management Agency Memorandum on Internal Control and Required Communications for the Year Ended June 30, 2022.

LIVERMORE-AMADOR VALLEY
WATER MANAGEMENT AGENCY

BASIC FINANCIAL STATEMENTS

FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

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LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
BASIC FINANCIAL STATEMENTS
For the Years Ended June 30, 2022 and 2021

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MAZE & ASSOCIATES

INDEPENDENT AUDITOR'S REPORT

Board of Directors
Livermore-Amador Valley Water Management Agency
Dublin, California

Opinions

We have audited the accompanying financial statements of the business-type activities of the Livermore-Amador Valley Water Management Agency (Agency), California, as of and for the years ended June 30, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the Agency's basic financial statements as listed in the Table of Contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities of the Agency as of June 30, 2022 and 2021, and the respective changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Agency and to meet our other ethical responsibilities, in accordance with the relevant ethical requirement relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management's for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Agency's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the judgment made by a reasonable user based on the financial statements.

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In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Agency's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Agency's basic financial statements. The accompanying Supplementary Information, as listed in the Table of Contents, is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Supplementary Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the Introductory Section listed in the Table of Contents, but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exits, we are required to describe it in our report.

Maze + Associates

Pleasant Hill, California
November 9, 2022

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LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

Management's Discussion & Analysis

June 30, 2022 and 2021

This section presents management's analysis of the Livermore-Amador Valley Water Management Agency (the Agency) financial condition and activities as of and for the years ended June 30, 2022 and 2021. Management's Discussion and Analysis (MDA) is intended to serve as an introduction to the Agency's basic financial statements. The MDA represents management's examination and analysis of the Agency's financial condition and performance.

This information should be read in conjunction with the audited financial statements that follow this section. The information in the MDA is presented under the following headings:

- Organization and Business
- Overview of the Financial Statements
- Financial Analysis
- Request for Information

Organization and Business

Livermore-Amador Valley Water Management Agency (the Agency) is a joint powers agency that was formed in 1974 by a joint exercise of powers agreement between the cities of Pleasanton and Livermore and the Dublin San Ramon Services District. The Agency has implemented a water quality management program involving wastewater disposal. The Agency operates an export pump station and pipeline connecting with the East Bay Dischargers Authority's system and discharges treated wastewater, through a deep-water outfall, into San Francisco Bay. The Agency currently has an Amended and Restated Joint Exercise of Powers Agreement dated September 10, 1997, among the members. This agreement, among other things, sets forth capacity limitations and capacity rights of each member as well as cost-sharing procedures for debt service and fixed operating costs related to capacity rights and variable operating costs related to actual use of the export facilities. The Agency negotiated a Second Amended and Restated Sewer Service Contract dated August 1, 2021 as part of the 2022 LAVWMA debt refinancing.

For additional information, please see the notes to the basic financial statements.

Overview of the Financial Statements

The basic financial statements include a *statement of net position*, *a statement of revenues, expenses, and changes in net position, a statement of cash flows,* and *notes to financial statements.* The report also contains other required supplementary information in addition to the basic financial statements.

The Agency's basic financial statements include:

The *statement of net position* presents information on the Agency's assets and liabilities, with the difference between the two reported as net position. It provides information about the nature and amount of resources and obligations at year-end.

The *statement of revenues, expenses, and changes in net position* presents the results of the Agency's operations over the course of the fiscal year and information as to how the *net position* changed during the year.

The *statement of cash flows* presents changes in cash and cash equivalents resulting from operational, capital and related financing, and investing activities. This statement summarizes the annual flow of cash receipts and cash payments, without consideration of the timing of the event giving rise to the obligation or receipt.

The *notes to basic financial statements* provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The notes to basic financial statements can be found on pages 11 to 21 of this report.

Financial Analysis:

Table 1 summarizes net position at June 30, 2022 and 2021, and Table 2 summarizes revenues, expenses and changes in net position for the years ended June 30, 2022 and 2021. Both tables also include variances from the prior year.

Table 1

Summary of Net Position

June 30, 2022 and 2021

	2022	2021	Variance	2020	Variance
Assets:					
Current assets	$ 17,320,847	$ 19,301,378	$ (1,980,531)	$ 28,197,985	$ (8,896,607)
Non-current assets	408,004	-	408,004	-	-
Capital assets, net of accumulated depreciation	103,563,969	104,461,846	(897,877)	107,040,339	(2,578,493)
Total assets	121,292,819	123,763,224	(2,470,405)	135,238,324	(11,475,100)
Liabilities:					
Current liabilities	6,026,039	6,908,367	(882,328)	15,132,701	(8,224,334)
Long-term debt outstanding	60,342,265	68,678,709	(8,336,444)	74,034,193	(5,355,484)
Total Liabilities	66,368,304	75,587,076	(9,218,772)	89,166,894	(13,579,818)
Deferred Inflows of Resources:					
Gain on refunding	3,561,106	0	3,561,106	0	0
Total deferred inflows of resources	3,561,106	0	3,561,106	0	0
Net position:					
Invested in capital assets, net of related debt	45,473,716	33,853,495	11,620,221	32,481,873	1,371,622
Unrestricted	5,889,689	14,322,653	(8,432,964)	13,589,557	733,096
Total net position	$ 51,363,409	$ 48,176,148	$ 3,187,261	$ 46,071,430	$ 2,104,718

- The total assets of the Agency decreased $2.5 million in 2022 from 2021, which had decreased $11.5 million in 2021 from 2020. The decrease in current assets of $2.0 million is due to higher capital expenditures and JPA member contribution advances in FYE21. Construction in Progress increase of $2.0 million and capitalization of LAVWMA pump station basin joint sealing project of $0.4 million is offset by $3.4 million in depreciation resulting in a net decrease in capital assets of $0.9 million (Note 3).
- Total liabilities decreased $9.2 million in 2022 from 2021, which had increased $13.6 million in 2021 from 2020. The decrease is primarily due to 2021 Sewer Revenue Refunding Bonds (Note 5).
- Net position overall has increased the last two years as debt is being paid down and refunding of 2011 Sewer Revenue Refunding Bonds.

Table 2

Summary of Revenues, Expenses and Changes in Net Position

Years ended June 30, 2022 and 2021

	2022	2021	Variance	2020	Variance
Operating revenues:	$ 11,261,431	$ 12,139,023	$ (877,592)	$ 11,708,912	$ 430,111
Operating expenses:	6,775,191	7,264,869	(489,678)	6,730,537	534,332
Net operating income (expenses)	4,486,240	4,874,154	(387,914)	4,978,375	(104,221)
Non operating revenues (expenses)	(1,298,979)	(2,769,436)	1,470,457	(2,583,503)	(185,933)
Change in net position	$ 3,187,261	$ 2,104,718	$ 1,082,543	$ 2,394,872	$ (290,154)

- Operating revenues come from member agency contributions to cover operating costs, debt, and capital replacement. FYE 2022 operating revenues decreased $0.9 million due to JPA member contribution advances in FYE21 and year-end expense true-up.
- Operating expenses decreased $0.5 million in FYE 2022 compared to an increase of $0.5 million in the prior fiscal year. The decrease in operating expenses is primarily due to contracted administrative and operation staff costs.
- Non-operating revenues (expenses) reflect a net decrease in non-operating expenses over the last two years as debt is being paid down and refunding of 2011 Sewer Revenue Refunding Bonds.

Request for Information

This financial report is designed to provide readers with a general overview of the Livermore-Amador Valley Water Management Agency's finances and demonstrate the Agency's accountability for the monies it manages. If you have any questions about this report or need additional information, please contact: LAVWMA Agency Treasurer, 7051 Dublin Blvd., Dublin, CA 94568.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
STATEMENTS OF NET POSITION
JUNE 30, 2022 AND 2021

	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents (Note 2B)	$17,310,382	$18,323,615
Due From members (Note 4)	10,465	977,763
Total current assets	17,320,847	19,301,378
Non-current assets:		
Bond issuance costs	408,004	-
Capital assets (Note 3):		
Construction in progress	3,300,252	1,248,351
Depreciable, net of accumulated depreciation	100,263,716	103,213,495
Total non-current assets	103,971,972	104,461,846
Total assets	121,292,819	123,763,224
LIABILITIES		
Current liabilities:		
Accounts payable	448,683	486,304
Due to members (Note 4)	240,945	155,615
Interest payable	791,411	1,326,448
Current portion of long-term debt (Note 5)	4,545,000	4,940,000
Total current liabilities	6,026,039	6,908,367
Long-term liabilities:		
Bond issuance premium, net of amortization (Note 5)	10,097,265	4,258,709
Long-term debt less current portion (Note 5)	50,245,000	64,420,000
Total long-term liabilities	60,342,265	68,678,709
Total liabilities	66,368,304	75,587,076
DEFERRED INFLOWS OF RESOURCES		
Gain on refunding (Note 5)	3,561,106	-
Total deferred inflows of resources	3,561,106	-
NET POSITION (Note 7)		
Net investment in capital assets	45,473,716	33,853,495
Unrestricted	5,889,693	14,322,653
Total net position	$51,363,409	$48,176,148

The accompanying notes are an integral part of these financial statements

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN NET POSITION
FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

	2022	2021
Operating revenues:		
Service charges (Note 4)	$11,491,911	$11,751,500
Service charges - other (Note 4)	(230,480)	387,523
Total operating revenues	11,261,431	12,139,023
Operating expenses:		
Energy	1,360,016	1,337,177
EBDA O&M costs	849,203	828,578
Operations agreement	793,133	1,161,036
Professional services	223,323	386,683
Livermore sole use O&M	22,538	38,695
Miscellaneous	105,712	82,110
Repairs and maintenance	34,574	45,949
Depreciation and amortization	3,386,692	3,384,641
Total operating expenses	6,775,191	7,264,869
Operating income	4,486,240	4,874,154
Non-operating revenues (expenses)		
Interest income	69,075	18,159
Bond interest expense	(1,368,054)	(2,787,595)
Total non-operating revenues (expenses)	(1,298,979)	(2,769,436)
Change in net position	3,187,261	2,104,718
Net position, beginning of year	48,176,148	46,071,430
Net position, end of year	$51,363,409	$48,176,148

The accompanying notes are an integral part of these financial statements

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

	2022	2021
Cash flows from operating activities:		
Receipts from member contributions	$11,820,725	$3,501,629
Payments to suppliers	(3,340,790)	(3,954,478)
Net cash provided (used) by operating activities	8,479,935	(452,849)
Cash flows from capital and related financing activities:		
Acquisition of capital assets	(2,488,814)	(806,148)
Principal paid on long-term debt	(69,360,000)	(4,705,000)
Interest paid on long-term debt	(2,994,093)	(3,301,100)
Proceeds from issuance of long-term debt	65,280,664	-
Net cash (used) by capital and related financing activities	(9,562,243)	(8,812,248)
Cash flows from investing activities:		
Interest on cash and investments	69,075	18,159
Net cash provided by investing activities	69,075	18,159
Net (decrease) in cash and cash equivalents	(1,013,233)	(9,246,938)
Cash and cash equivalents - beginning of period	18,323,615	27,570,553
Cash and cash equivalents - end of period	$17,310,382	$18,323,615
Reconciliation of operating income to net cash provided (used) in operating activities:		
Operating income	$4,486,240	$4,874,154
Adjustments to reconcile operating income to cash flows from operating activities:		
Depreciation and amortization	3,386,692	3,384,641
Changes in certain assets and liabilities:		
Decrease (increase) in due from members	967,298	(350,331)
(Increase) in bond issuance costs	(408,004)	-
(Decrease) in accounts payable	(37,621)	(153,470)
Increase in due to members	85,330	79,220
(Decrease) in advance from members	-	(8,287,063)
Net cash provided (used) by operating activities	$8,479,935	($452,849)

The accompanying notes are an integral part of these financial statements

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. General

Livermore-Amador Valley Water Management Agency (the Agency) is a joint powers agency that was formed in 1974 by a joint exercise of powers agreement between the cities of Pleasanton and Livermore and the Dublin-San Ramon Services District. The Agency has implemented a water quality management program involving wastewater disposal. The Agency operates an export pipeline connecting with the East Bay Dischargers Authority's (EBDA) system and discharges treated wastewater, through a deep-water outfall, into San Francisco Bay. The Agency currently has an Amended and Restated Joint Exercise of Powers Agreement dated September 10, 1997, among the members. This agreement, among other things, sets forth capacity limitations and capacity rights of each member as well as cost-sharing procedures for debt service and fixed operating costs related to capacity rights and variable operating costs related to actual use of the export facilities.

The Agency has a separate Master Agreement with EBDA that governs the terms and conditions by which the Agency uses capacity in the EBDA facilities. The Master Agreement was entered into in 2007 and was set to expire on January 1, 2020. It was extended three times. First through June 30, 2020, secondly through December 31, 2020, and most recently through June 30, 2021. The most recent extension was approved by the Board at the November 18, 2020 meeting. These extensions were granted to give the parties more time to negotiate the terms and conditions for an amended and restated Master Agreement. The Amended and Restated Master Agreement between the Agency and EBDA was approved by both parties in May 2021. The agreement became effective July 1, 2021 and will be in effect until June 30, 2040. The cost terms were retroactive to July 1, 2020.

B. Reporting Entity

The Agency is the only entity included in these financial statements.

C. Fund Accounting

The accounts of the Agency are organized on the basis of funds, each of which is considered a separate accounting entity. The Agency maintains a proprietary fund that is used to account for the financing of goods or services provided by the Agency to other governments on a cost-reimbursement basis.

The Agency is a proprietary entity; it uses an enterprise fund format to report its activities for financial statement purposes. Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises, where the intent of the governing body is that the costs and expenses, including depreciation, of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges.

An enterprise fund is used to account for activities similar to those in the private sector, where the proper matching of revenues and costs is important and the full accrual basis of accounting is required. With this measurement focus, all assets and all liabilities of the enterprise are recorded in its balance sheet, all revenues are recognized when earned and all expenses, including depreciation, are recognized when incurred.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

D. Basis of Accounting

Records of the Agency are maintained on the accrual basis. Revenues are recognized when earned and expenses are recognized when incurred.

Operating revenues, such as charges for services, result from exchange transactions associated with the principal activity of the fund. Exchange transactions are those in which each party receives and gives up essentially equal values. Non-exchange transactions, in which the Agency gives or receives value without directly receiving or giving equal value in exchange, include member contributions.

Revenue from member contributions is recognized in the fiscal year in which it is earned. Nonoperating revenues, such as interest income, result from nonexchange transactions or ancillary activities.

E. Use of Estimates

The basic financial statements have been prepared in conformity with U.S. generally accepted accounting principles, and as such, include amounts based on informed estimates and judgments of management with consideration given to materiality. Actual results could differ from those estimates.

F. Cash and Cash Equivalents

The Agency places certain funds with the State of California's Local Agency Investment Fund (LAIF). The Agency is a voluntary participant in LAIF, which is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California and the Pooled Money Investment Board. The State Treasurer's office pools these funds with those of other governmental agencies in the state and invests the cash. The fair value of the Agency's investment in this pool is reported in the accompanying financial statements based upon the Agency's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio).

The monies held in the pooled investment funds are not subject to categorization by risk category. The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on the amortized cost basis. Funds are accessible and transferable to the master account with twenty-four hours' notice. Financial statements for LAIF can be obtained from the California State Treasurer's Office: State Treasurer's Office, 915 Capitol Mall, Suite 110, Sacramento, CA 95814.

Cash and investments are used in preparing the statement of cash flows because these assets are highly liquid and are expended to liquidate liabilities arising during the year.

G. Capital Assets

Capital assets are recorded at cost. Assets with an initial cost of more than $10,000 and an estimated useful life greater than three years are capitalized. Infrastructure assets with an initial cost of more than $25,000 are capitalized. Depreciation of property and equipment is provided on the straight-line method over the following useful lives:

Pipeline and Export Facility	20-50 years
Pump Station	10-25 years
Intangible	33 years
Equipment	3-25 years

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

H. *Bond Issuance Costs and Bond Premium*

Bond issuance costs and premium are amortized on a straight-line basis over the term of the bond.

I. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Agency categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels based on the extent to which inputs used in measuring fair value are observable in the market.

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs are inputs - other than quoted prices included within level 1 - that are observable for an asset or liability, either directly or indirectly.

Level 3 inputs are unobservable inputs for an asset or liability.

If the fair value of an asset or liability is measured using inputs from more than one level of the fair value hierarchy, the measurement is considered to be based on the lowest priority level input that is significant to the entire measurement.

J. Deferred Inflows of Resources

In addition to liabilities, the statement of financial position or balance sheet will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position or fund balance that applies to a future period(s) and so will not be recognized as an inflows of resources (revenue) until that time. The Agency reports deferred inflows from one source, gain on refunding of long-term debt. These amounts are deferred and recognized as an inflow of resources in the period that the amounts become available.

NOTE 2 – CASH AND INVESTMENTS

A. Policies

California Law generally requires banks and savings and loan institutions to pledge government securities with a market value of 110% of the Agency's cash on deposit or first trust deed mortgage notes with a value of 150% of the deposit as collateral for these deposits. Under California Law this collateral is held in a separate investment pool by another institution in the Agency's name and places the Agency ahead of general creditors of the institution. The Agency has waived collateral requirements for the portion of deposits covered by federal depository insurance. As of June 30, 2022 and 2021, the Agency's cash in bank was insured or collateralized as discussed above.

Cash and investments are recorded at market value.

NOTE 2 – CASH AND INVESTMENTS (Continued)

B. Composition

Cash and cash equivalents consist of the following as of June 30:

	2022	2021
Cash in Bank	$827,543	$7,712
California Local Agency Investment Fund	16,482,839	18,315,903
Total cash and cash equivalents	$17,310,382	$18,323,615

C. Investments Authorized by the California Government Code and the Agency's Investment Policy

The Agency's Investment Policy and the California Government Code allow the Agency to invest in the following provided the credit ratings of the issuers are acceptable to the Agency; and approved percentages and maturities are not exceeded. The table below also identifies certain provisions of the California Government Code, or the Agency's Investment Policy where the Agency's Investment Policy is more restrictive.

Limit	Minimum Rating	Maximum Maturity	Authorized Investment
None	None	5 years	Collateralized Certificate of Deposits purchased from banks or savings and loan institutions as authorized by statute
30%	None	5 years	Negotiable Certificates of Deposit
None	None	5 years	U.S. Treasury Bills, Notes, and Bonds
None	None	5 years	Securities of Government Agencies (e.g., Federal Home Loan Bank, Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, Student Loan Marketing Association, Government National Mortgage Association, Federal Farm Credit Bank, Tennessee Valley Authority)
30%	A	5 years	Medium-Term Corporate Notes
20%	None	N/A	Mutual Funds (Shares of beneficial interest issued by diversified management companies who invest in securities authorized by § 53601)
None	None	5 years	Indebtedness issued by LAVWMA or any local agency in California
Maximum allowed by LAIF	None	N/A	The State of California Local Agency Investment Fund
Maximum allowed by CAMP	None	N/A	The California Asset Management Program

NOTE 2 – CASH AND INVESTMENTS (Continued)

D. Local Agency Investment Fund

The Agency is a voluntary participant in the Local Agency Investment Fund (LAIF) that is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California. The Agency reports its investment in LAIF at the fair value amount provided by LAIF, which is the same as the value of the pool share. The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis. Included in LAIF's investment portfolio are collateralized mortgage obligations, mortgage-backed securities, other asset-backed securities, loans to certain state funds, and floating rate securities issued by federal agencies, government-sponsored enterprises, United States Treasury Notes and Bills, and corporations. At June 30, 2022 and 2021, these investments matured in an average of 311 and 291 days, respectively.

E. Fair Value Measurements

The Agency categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The Agency's only investment in the Local Agency Investment Fund is exempt from the fair value measurement hierarchy.

NOTE 3 – CAPITAL ASSETS

The following is a summary of changes in capital assets for the year ended June 30, 2022:

	Balance at June 30, 2020	Additions	Balance at June 30, 2021	Additions	Transfers	Balance at June 30, 2022
Non-depreciable assets:						
Construction in progress	$493,466	$754,885	$1,248,351	$2,488,814	($436,913)	$3,300,252
Total non-depreciable assets	493,466	754,885	1,248,351	2,488,814	(436,913)	3,300,252
Capital assets being depreciated:						
Pipeline	118,274,222	-	118,274,222	-	-	118,274,222
Pump station	18,900,060	51,263	18,951,323	-	436,913	19,388,236
Export facility	5,767,500	-	5,767,500	-	-	5,767,500
Intangibles	10,000,000	-	10,000,000	-	-	10,000,000
Total capital assets being depreciated/amortized:	152,941,782	51,263	152,993,045	-	436,913	153,429,958
Less:						
Accumulated depreciation	(39,425,215)	(3,081,611)	(42,506,826)	(3,083,662)	-	(45,590,488)
Accumulated amortization	(6,969,694)	(303,030)	(7,272,724)	(303,030)	-	(7,575,754)
Net capital assets being depreciated/amortized	106,546,873	(3,333,378)	103,213,495	(3,386,692)	436,913	100,263,716
Total capital assets, net	$107,040,339	($2,578,493)	$104,461,846	($897,878)	-	$103,563,968

Depreciation and amortization expense for the Agency for June 30, 2022 and June 30, 2021 was $3,386,692 and $3,333,378, respectively.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

NOTE 4 – SERVICE CHARGES TO MEMBERS

Under the terms of the Agency's Sewer Service Contract with its members, the members pay the Agency a service charge equal to their share of the actual costs of operating the pipeline and pump station. The members are required to make advance payments to the Agency based on estimated costs. When advance payments are more or less than actual costs, differences are billed or refunded to the members in accordance with their participation percentage as specified in the agreement.

The following schedule reconciles the advance payments received from members with the actual costs of operating the pipeline and pump station determine what is owed to or from the members as of June 30, 2022 and 2021:

	2022	2021
Advance payments received from members		
City of Livermore	$3,375,291	$3,441,031
City of Pleasanton	3,953,092	4,034,533
Dublin San Ramon Services District	4,163,528	4,275,936
Total services charges	$11,491,911	$11,751,500
Advance payments received from members	$11,491,911	$11,751,500
Interest earned on operating advances	5,145	5,416
Less advances for:		
Debt service	(7,481,431)	(8,006,101)
Joint Use replacement	(400,000)	(400,000)
Net available for operations and maintenance	3,615,625	3,350,815
Operations and maintenance expenses:		
Power	1,360,016	1,337,177
LAVWMA share of EBDA O&M Costs	849,203	828,578
Operations agreement	793,133	1,023,721
Professional services	223,323	386,683
Livermore Sole Use O&M	22,538	38,695
Miscellaneous	102,358	77,535
Repairs and maintenance	34,574	45,949
Total operations and maintenance expenses	3,385,145	3,738,338
Amount due to (due from) members, net	$230,480	($387,523)
Amount due to (due from):		
City of Livermore	($10,648)	($196,884)
City of Pleasanton	21,009	(193,464)
Dublin San Ramon Services District	220,119	2,825
	$230,480	($387,523)

There was an additional due from members in the amount of $434,625 recognized in fiscal year ending 2021, which was billed in July 2021.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

NOTE 5 – LONG-TERM DEBT

The following is a summary of changes in general long-term liabilities during the year ended June 30, 2022:

	Balance June 30, 2021	Additions	Retirements	Balance June 30, 2022	Amount due within one year	More than one year
Revenue Bonds						
2011 Sewer Revenue Refunding Bonds 2% - 5%, due 8/1/2031	$69,360,000	$ -	$69,360,000	$ -	$ -	$ -
2021 Sewer Revenue Refunding Bonds 4%, due 8/1/2031	-	54,790,000	-	54,790,000	4,545,000	50,245,000
Total Long-Term Debt	69,360,000	54,790,000	69,360,000	54,790,000	4,545,000	50,245,000
Plus: Unamortized bond premium	4,258,709	10,490,664	4,652,108	10,097,265	-	10,097,265
Total Long-Term Debt, net	$73,618,709	$65,280,664	$74,012,108	$64,887,265	$4,545,000	$60,342,265

The following is a summary of changes in general long-term liabilities during the year ended June 30, 2021:

	Balance June 30, 2020	Additions	Retirements	Balance June 30, 2021	Amount due within one year	More than one year
Revenue Bonds						
2011 Sewer Revenue Refunding Bonds 2% - 5%, due 8/1/2031	$74,065,000	$ -	$4,705,000	$69,360,000	$4,940,000	$64,420,000
Total Long-Term Debt	74,065,000	-	4,705,000	69,360,000	4,940,000	64,420,000
Plus: Unamortized bond premium	4,674,193	-	415,484	4,258,709	-	4,258,709
Total Long-Term Debt, net	$78,739,193	-	$5,120,484	$73,618,709	$4,940,000	$68,678,709

A. 2011 Sewer Revenue Refunding Bonds

The Agency issued $105,345,000 of 2011 Sewer Revenue Refunding Bonds on September 28, 2011. Proceeds of the issuance were used to refund and retire the Series A Sewer Revenue Bonds and to pay costs of issuance. Principal payments are due annually beginning August 1, 2012 through August 1, 2031.

Debt service on the 2011 Bonds is repayable from Agency Net Revenues which are defined as Gross Revenues less Maintenance and Operations costs, excluding in all cases depreciation, replacement and obsolescence charges or reserves therefore, debt service, amortization of intangibles or other book-keeping entries of a similar nature, and costs paid out of the Sole-Use, Dual-Use and Joint-Use Replacement Funds.

NOTE 5 – LONG-TERM DEBT (Continued)

Member Liens for Repayment of 2011 Bonds: Under an Amended And Restated Sewer Service Contract dated October 1, 2011, between the Agency and Members, the Members pledge and create, in favor of LAVWMA and the Trustee for the 2011 Bonds, a lien on the Net Revenues of their respective wastewater systems (the "Sewer Systems"), to pay to LAVWMA the amounts owed in order for LAVWMA to pay debt service on the 2011 Bonds. There are three important limitations with respect to this pledge of Net Revenues. First, this lien is subordinate to the Members' existing obligations payable from their Net Revenues, as well as obligations payable from their Net Revenues to be issued in the future by the Members to finance or refinance improvements to their respective Sewer System. Second, for DSRSD and Pleasanton, "Net Revenues" are not defined in the Sewer Service Contract to include all of the fees, rates and charges collected by DSRSD and Pleasanton in connection with their Sewer System; DSRSD and Pleasanton have only pledged regional service charges as security for their obligation to make the Payments.

Third, Pleasanton, in its capacity as the largest customer of DSRSD's Sewer System, is only obligated to levy regional charges and fees established by DSRSD and to transfer the amount collected to DSRSD.

Pursuant to the official statement, each member agency is required to set rates to achieve coverage of 1.1 times debt service. Furthermore, the official statement contains events of default that require the net revenue of the Agency and Members to be applied by the Trustee as specified in the terms of the agreement if any of the following conditions occur: default on debt service payments; the failure of the Agency or Members to observe or perform the conditions, covenants, or agreement terms of the debt; bankruptcy filing by the Agency or Members; or if any court or competent jurisdiction shall assume custody or control of the Agency or Members.

The Agency refunded the 2011 Sewer Revenue Refunding Bonds on August 11, 2021 with the issuance of the 2021 Sewer Revenue Refunding Bonds as discussed below. As a result, the 2011 Sewer Revenue Refunding Bonds are considered defeased and the liability for those bonds has been removed from the Agency's Statement of Net Position.

B. 2021 Sewer Revenue Refunding Bonds

The Agency issued $54,790,000 of 2021 Sewer Revenue Refunding Bonds on August 11, 2021. Proceeds of the issuance were used to refund the 2011 Sewer Revenue Refunding Bonds and pay costs of issuance. Interest payments are due semi-annually on February 1 and August 1, beginning August 1, 2021. Principal payments are due annually beginning August 1, 2022. The interest rate on the bonds is 4%. The refunding resulted in a net present value savings over the life of the bonds in the amount of $13,775,080. In fiscal year 2022, the Agency recorded a gain on the refunding in the amount of $3,561,106 as deferred inflow of resources, which will be amortized over the life of the bonds.

Pursuant to the official statement, each member agency is required to set rates to achieve coverage of 1.1 times debt service. Furthermore, the official statement contains events of default that require the net revenue of the Agency and Members to be applied by the Trustee as specified in the terms of the agreement if any of the following conditions occur: default on debt service payments; the failure of the Agency or Members to observe or perform the conditions, covenants, or agreement terms of the debt; bankruptcy filing by the Agency or Members; or if any court or competent jurisdiction shall assume custody or control of the Agency or Members.

NOTE 5 – LONG-TERM DEBT (Continued)

C. Debt Service Maturity

At June 30, 2022, future annual repayment requirements for long-term debt were as follows:

For The Year Ending June 30	Principal	Interest	Total
2023	$4,545,000	$2,100,700	$6,645,700
2024	4,735,000	1,915,100	6,650,100
2025	4,925,000	1,721,900	6,646,900
2026	5,125,000	1,520,900	6,645,900
2027	5,335,000	1,311,700	6,646,700
2028-2032	30,125,000	3,108,500	33,233,500
Total payments due	$54,790,000	$11,678,800	$66,468,800

NOTE 6 – RISK MANAGEMENT

The Agency's insurance coverage is as follows:

The Agency is exposed to various risks of loss related to torts: theft, damage, and destruction of assets; errors and omissions; injuries to employees and natural disaster. The Agency joined together with other entities to form the Special District Risk Management Authority (SDRMA), a public entity risk pool currently operating as a common risk management and insurance program for member entities. The purpose of SDRMA is to spread the adverse effects of losses among the member entities and to purchase excess insurance as a group, thereby reducing its cost. The Agency pays annual premiums to SDRMA for its general, liability, and property damage.

SDRMA is governed by a Board composed of one representative from each member agency. The Board controls the operations of SDRMA including selection of management and approval of operating budgets, independent of any influence by member entities.

In addition to the primary insurance types provided for through SDRMA listed above, the Agency also maintains commercial fidelity bonds, public employee dishonesty and public official bonds to protect against employee theft or defalcation. Settled claims for SDRMA or commercial fidelity bonds have not exceeded coverage in any of the past three fiscal years.

NOTE 6 – RISK MANAGEMENT (Continued)

The following is a summary of the insurance policies carried by the Agency as of June 30, 2022:

Company Name	Type of Coverage	Limits	Deductibles
Uninsured/underinsured motorists	Each occurrence	$1,000,000	None
Auto Liability	Comprehensive liability	5,000,000	$1,000
Property coverage	Comprehensive liability	800,000,000	1,000
Employee dishonesty	Blanket bond	1,000,000	None
Personal liability coverage (board)	Comprehensive liability	500,000	None
General liability	Comprehensive liability	5,000,000	500
Public officials and employee errors	Comprehensive liability	5,000,000	None
Employment practices liability	Comprehensive liability	5,000,000	None
Employee benefits liability	Comprehensive liability	5,000,000	None
Boiler and machinery coverage	Comprehensive liability	100,000,000	1,000

Claims and judgments, including provision for claims incurred but not reported, are recorded when a loss is deemed probable of assertion and the amount of the loss is reasonably determinable. As discussed above, the Agency has coverage for such claims, but it had retained the risk for the deductible or uninsured portion of these claims.

The Agency's liability for uninsured claims is limited to general liability claims, as discussed above, and was estimated to be immaterial. The Agency has not exceeded its insurance coverage limits in any of the last three years.

NOTE 7 – NET POSITION

Net Position is the excess of all the Agency's assets over all its liabilities. Net Position is divided into three categories which are described as follows:

- ***Net investment in capital assets*** describes the portion of net position that is represented by the current net book value of the Agency's capital assets, less the outstanding balance of any debt issued to finance these assets.

- ***Restricted*** describes the portion of net position that is restricted as to use by the terms and conditions of agreements with outside parties, governmental regulations, laws or other restrictions which the Agency cannot unilaterally alter. These principally include developer fees received for use on capital projects, debt service requirements, and redevelopment funds restricted to low and moderate income purposes. The Agency had no restricted net position.

- ***Unrestricted*** describes the portion of net position that is not restricted to use.

NOTE 8 – CONTINGENT LIABILITIES

The Agency is involved in various claims and litigation arising in the ordinary course of business. Agency management, based upon the opinion of legal counsel, is of the opinion that the ultimate resolution of such matters will not have a materially adverse effect on the Agency's financial position or results of operations.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

NOTE 9 – MEMBER EQUITY ALLOCATION

A review of the member equity calculation was conducted and each type of asset is allocated according to contractually agreed ownership shares. At June 30, 2022, the members' respective shares of the Agency's net position, based on this calculation, are as follows:

	Operation & Maintenance	EBDA Capacity	2011 Debt Service*	2021 Debt Service*	Joint-Use Replacement	Dual-Use Replacement	Sole-Use Replacement	TOTAL
Net Position:								
Total Assets	$1,109,705	$2,424,245	$1,019,637	($541,660)	$112,105,988	$483,377	$4,691,527	$121,292,819
Total Liabilities and Deferred Inflows	614,993	-	3,561,106	65,678,676	74,635	-	-	69,929,410
	$494,712	**$2,424,245**	**($2,541,469)**	**($66,220,336)**	**$112,031,353**	**$483,377**	**$4,691,527**	**$51,363,409**
Allocation:								
Livermore	30.10%	18.18%	27.83%	27.83%	30.10%	-	100.00%	
Pleasanton	34.95%	34.14%	33.27%	33.27%	34.95%	50.00%	-	
DSRSD	34.95%	47.68%	38.90%	38.90%	34.95%	50.00%	-	
Member Equity:								
Livermore	$148,908	$440,728	($707,271)	($18,428,575)	$33,721,437	-	$4,691,527	$19,866,754
Pleasanton	172,902	827,637	(845,666)	(22,034,634)	39,154,958	$241,689	-	17,516,886
DSRSD	172,902	1,155,880	(988,532)	(25,757,127)	39,154,958	241,688	-	13,979,769
	$494,712	**$2,424,245**	**($2,541,469)**	**($66,220,336)**	**$112,031,353**	**$483,377**	**$4,691,527**	**$51,363,409**

** Note that for debt service, blended allocations are shown above. Actual allocations are below:*

	Livermore	Pleasanton	DSRSD
Repair (30.46% of total debt)	39.95%	36.71%	23.34%
Expansion (69.54% of total debt)	22.52%	31.77%	45.71%

At June 30, 2021, the members' respective share of the Agency's net position, based on this calculation, is as follows:

	Operation & Maintenance	EBDA Capacity	2011 Debt Service*	Joint-Use Replacement	Dual-Use Replacement	Sole-Use Replacement	TOTAL
Net Position:							
Total Assets	$1,042,377	$2,727,275	$69,763	$114,487,221	$489,311	$4,947,277	$123,763,224
Total Liabilities	547,665	-	74,945,157	94,254	-	-	75,587,076
	$494,712	**$2,727,275**	**($74,875,394)**	**$114,392,967**	**$489,311**	**$4,947,277**	**$48,176,148**
Allocation:							
Livermore	30.10%	18.18%	27.83%	30.10%	-	100.00%	
Pleasanton	34.95%	34.14%	33.27%	34.95%	50.00%	-	
DSRSD	34.95%	47.68%	38.90%	34.95%	50.00%	-	
Member Equity:							
Livermore	$148,908	$495,818	($20,837,208)	$34,432,283	-	$4,947,277	$19,187,078
Pleasanton	172,902	931,092	(24,914,580)	39,980,342	$244,656	-	16,414,412
DSRSD	172,902	1,300,365	(29,123,606)	39,980,342	244,655	-	12,574,658
	$494,712	**$2,727,275**	**($74,875,394)**	**$114,392,967**	**$489,311**	**$4,947,277**	**$48,176,148**

** Note that for debt service, blended allocations are shown above. Actual allocations are below:*

	Livermore	Pleasanton	DSRSD
Repair (30.46% of total debt)	39.95%	36.71%	23.34%
Expansion (69.54% of total debt)	22.52%	31.77%	45.71%

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SUPPLEMENTAL INFORMATION

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SCHEDULE OF SUB FUND ACCOUNT STATEMENTS OF NET POSITION
JUNE 30, 2022

	Maintenance & Operation	EBDA Capacity	2011 Debt Service
ASSETS			
Cash and equivalents	$599,432	$ -	$976,537
Investments	499,808	-	43,100
Bond issuance costs	-	-	-
Due from members	10,465	-	-
Capital assets, construction in progress	-	-	-
Capital assets, net of accumulated depreciation	-	2,424,245	-
Total assets	1,109,705	2,424,245	1,019,637
LIABILITIES			
Accounts payable	374,048	-	-
Due to members	240,945	-	-
Interest payable	-	-	-
Long-term debt:			
Bond issuance premium, net of amortization	-	-	-
Due within one year	-	-	-
Due in more than one year			
Total liabilities	614,993	-	
DEFERRED INFLOWS OF RESOURCES			
Gain on refunding	-	-	3,561,106
NET POSITION			
Net investment in capital assets	-	2,424,245	-
Unrestricted	494,712	-	(2,541,469)
Total net position	$494,712	$2,424,245	($2,541,469)

	Repair and Replacement Reserve			
2021 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total
($949,694)	$180,313	$12,051	$8,905	$827,544
30	13,884,500	433,526	1,621,874	16,482,838
408,004	-	-	-	408,004
-	-	-	-	10,465
-	3,300,252	-	-	3,300,252
-	94,740,923	37,800	3,060,748	100,263,716
(541,660)	112,105,988	483,377	4,691,527	121,292,819
-	74,635	-	-	448,683
-	-	-	-	240,945
791,411	-	-	-	791,411
10,097,265	-	-	-	10,097,265
4,545,000	-	-	-	4,545,000
50,245,000	-	-	-	50,245,000
65,678,676	74,635	-	-	66,368,304
-	-	-	-	3,561,106
(54,790,000)	98,041,175	37,800	3,060,748	48,773,968
(11,430,336)	13,990,178	445,577	1,630,779	2,589,441
($66,220,336)	$112,031,353	$483,377	$4,691,527	$51,363,409

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SCHEDULE OF SUB FUND ACCOUNT ACTIVITY
FOR THE YEAR ENDED JUNE 30, 2022

	Maintenance & Operation	EBDA Capacity	2011 Debt Service
Operating revenues:			
Service charges - City of Livermore	$1,172,870	$ -	$2,082,021
Service charges - City of Pleasanton	1,323,867	-	2,489,425
Service charges - Dublin San Ramon Services District	1,113,743	-	2,909,985
Service charges other	(230,480)	-	-
Total operating revenues	3,380,000	-	7,481,431
Operating expenses:			
Power	1,360,016	-	-
LAVWMA share of EBDA O&M	849,203	-	-
Operations agreement	793,133	-	-
Professional services	223,323	-	-
Livermore sole use O&M	22,538	-	-
Miscellaneous	102,358	-	8
Total operating expenses and capital outlay	3,350,571	-	8
Repairs and maintenance	34,574	-	-
Total operating expenses	3,385,145	-	8
Operating income (loss)	(5,145)	-	7,481,423
Non-operating revenues (expenses)			
Depreciation and amortization	-	(303,030)	-
Interest income	5,145	-	188
Bond interest expense	-	-	-
Transfers in	-	-	64,852,314
Transfers out	-	-	-
Total non-operating revenues (expenses)	5,145	(303,030)	64,852,502
Changes in net position	-	(303,030)	72,333,925
Net position beginning of period	494,712	2,727,275	(74,875,394)
Net position end of period	$494,712	$2,424,245	($2,541,469)

	Repair and Replacement Reserve			
2021 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total
$ -	$120,400	$ -	$ -	$3,375,291
-	139,800	-	-	3,953,092
-	139,800	-	-	4,163,528
-	-	-	-	(230,480)
-	400,000	-	-	11,261,431
-	-	-	-	1,360,016
-	-	-	-	849,203
-	-	-	-	793,133
-	-	-	-	223,323
-	-	-	-	22,538
-	2,945	86	315	105,712
	2,945	86	315	3,353,925
-	-	-	-	34,574
-	2,945	86	315	3,388,499
-	397,055	(86)	(315)	7,872,932
-	(2,814,400)	(7,560)	(261,702)	(3,386,692)
32	55,731	1,712	6,267	69,075
(1,368,054)	-	-	-	(1,368,054)
-	-	-	-	64,852,314
(64,852,314)	-	-	-	(64,852,314)
(66,220,336)	(2,758,669)	(5,848)	(255,435)	(4,685,671)
(66,220,336)	(2,361,614)	(5,934)	(255,750)	3,187,261
	114,392,967	489,311	4,947,277	48,176,148
($66,220,336)	$112,031,353	$483,377	$4,691,527	$51,363,409

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LIVERMORE-AMADOR VALLEY
WATER MANAGEMENT AGENCY

MEMORANDUM ON INTERNAL CONTROL AND REQUIRED COMMUNICATIONS

FOR THE YEAR ENDED
JUNE 30, 2022

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LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
MEMORANDUM ON INTERNAL CONTROL
AND
REQUIRED COMMUNICATIONS

For the Year Ended June 30, 2022

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MAZE & ASSOCIATES

MEMORANDUM ON INTERNAL CONTROL

Board of Directors
Livermore-Amador Valley Water Management Agency
Dublin, California

In planning and performing our audit of the basic financial statements of the Livermore-Amador Valley Water Management Agency (Agency) as of and for the year ended June 30, 2022, in accordance with auditing standards generally accepted in the United States of America, we considered the Agency's internal control over financial reporting (internal control) as a basis for designing our auditing procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, we do not express an opinion on the effectiveness of the Agency's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Agency's financial statements will not be prevented, or detected and corrected, on a timely basis.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses. In addition, because of inherent limitations in internal control, including the possibility of management override of controls, misstatements due to error or fraud may occur and not be detected by such controls. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

This communication is intended solely for the information and use of management, Board of Directors, others within the organization, and is not intended to be and should not be used by anyone other than these specified parties.

Maze + Associates

Pleasant Hill, California
November 9, 2022

Accountancy Corporation
3478 Buskirk Avenue, Suite 215
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MAZE & ASSOCIATES

REQUIRED COMMUNICATIONS

Board of Directors
Livermore-Amador Valley Water Management Agency
Dublin, California

We have audited the basic financial statements of the Livermore-Amador Valley Water Management Agency (Agency) for the year ended June 30, 2022. Professional standards require that we communicate to you the following information related to our audit under generally accepted auditing standards, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated May 18, 2022. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

Qualitative Aspects of Accounting Practices

Accounting Policies - Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Agency are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year.

Unusual Transactions, Controversial or Emerging Areas - We noted no transactions entered into by the Agency during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting Estimates - Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the Agency's financial statements were:

> *Estimated Fair Value of Investments:* As of June 30, 2022, the Agency held approximately $17.3 million of cash and investments as measured by fair value as disclosed in Note 2 to the financial statements. Fair value is essentially market pricing in effect as of June 30, 2022. These fair values are not required to be adjusted for changes in general market conditions occurring subsequent to June 30, 2022.
>
> *Estimate of Depreciation:* Management's estimate of the depreciation is based on useful lives determined by management. These lives have been determined by management based on the expected useful life of assets as disclosed in Note 1G to the financial statements. We evaluated the key factors and assumptions used to develop the depreciation estimate and determined that it is reasonable in relation to the basic financial statements taken as a whole.

Disclosures - The financial statement disclosures are neutral, consistent, and clear.

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Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. We did not propose any audit adjustments that, in our judgment, could have a significant effect, either individually or in the aggregate, on the Agency's financial reporting process.

Professional standards require us to accumulate all known and likely uncorrected misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. We have no such misstatements to report to the Board of Directors.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in a management representation letter dated November 9, 2022.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Agency's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Agency's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We were engaged to report on the supplemental information that accompanies the financial statements, but is not required supplementary information. With respect to this supplemental information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplemental information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

******

This information is intended solely for the use of the Board of Directors and management and is not intended to be, and should not be, used by anyone other than these specified parties.

Maze + Associates

Pleasant Hill, California
November 9, 2022

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

ITEM NO. 10 THIRD AMENDMENT TO THE AGREEMENT WITH DUBLIN SAN RAMON SERVICES DISTRICT FOR TREASURER SERVICES AND APPOINTMNET OF HERMAN CHEN AS ASSISTANT TREASURER

Action Requested
That the Board approve the Third Amendment to the Agreement with Dublin San Ramon Services District for Treasurer Services and the Appointment of Herman Chen as Assistant Treasurer.

Summary
Carol Atwood, a DSRSD Employee, has been serving as the LAVWMA Treasurer since January 1, 2017. This service is pursuant to an agreement between LAVWMA and DSRSD for Treasurer Services that was first approved June 23, 2011. Ms. Atwood's appointment resulted in the Second Amendment to the Agreement between LAVWMA and DSRSD. Due to the current returns on treasury notes/bonds, LAVWMA will be diversifying its investment portfolio by investing in treasury securities and is in the process of opening an account at Charles Schwab for these transactions. The timeliness of purchasing treasuries requires backup for Ms. Atwood in case she is out of the office and will add additional segregation of duties. It is preferable to continue using DSRSD staff for this effort. Herman Chen, DSRSD's Financial Manager, is an ideal candidate to fulfill this requirement. In order to achieve this, it is necessary to amend the Agreement with DSRSD to appoint Herman Chen as LAVWMA's Assistant Treasurer. A third amendment to the agreement with DSRSD for Treasurer Services is required to appoint Mr. Chen as Assistant Treasurer.

Recommendation
It is recommended that the Board approve the attached Resolution approving the Third Amendment to the Agreement with Dublin San Ramon Services District for Treasurer Services and appoint Herman Chen as the LAVWMA Assistant Treasurer.

Attachments
1. Resolution No. 22-06 Resolution Approving the Third Amendment to the Agreement for Treasurer Services and Appointing Herman Chen as Assistant Treasurer.
2. Third Amendment to the Agreement for Treasurer Services.

Livermore-Amador Valley Water Management Agency

RESOLUTION NO. 22-06

RESOLUTION APPROVING THE THIRD AMENDMENT TO THE AGREEMENT FOR TREASURER SERVICES AND APPOINTING HERMAN CHEN AS ASSISTANT TREASURER

WHEREAS, the Livermore-Amador Valley Water Management Agency (LAVWMA) is a joint powers agency formed pursuant to the Amended and Restated Joint Exercise of Powers Agreement for the Livermore-Amador Valley Water Management Agency dated July 21, 1997 ("JPA");

WHEREAS, Paragraph 10.4 of the JPA provides that the LAVWMA Board shall designate a treasurer;

WHEREAS, LAVWMA previously designated Carol Atwood, an employee of member agency Dublin San Ramon Services District ("DSRSD"), as its treasurer, pursuant to the authority provided for in Paragraph 10.1 of the JPA;

WHEREAS, LAVWMA will be diversifying its investment portfolio and requires backup for the Treasurer and additional segregation of duties;

WHEREAS, Herman Chen, the Finance Manager of DSRSD, has the education and experience to staff this effort; and

WHEREAS, LAVWMA and DSRSD now desire to enter into a Third Amendment of the Agreement for Treasurer Services to designate Herman Chen as the Assistant Treasurer;

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Livermore-Amador Valley Water Management Agency hereby approves the Third Amendment to the Agreement for Treasurer Services by and between LAVWMA and DSRSD, which is attached hereto as Exhibit A and incorporated by this reference.

BE IT FURTHER RESOLVED that the General Manager is hereby authorized and directed to execute this Third Amendment for and on behalf of LAVWMA.

BE IT FURTHER RESOLVED that the Board of Directors of the Livermore-Amador Valley Water Management Agency hereby designates Herman Chen to serve as its Assistant Treasurer.

DULY AND REGULARLY ADOPTED by LAVWMA this 16th day of November, 2022, by the following vote:

AYES:
NOES:
ABSENT:

_____
Julie Testa, Chair

ATTEST: _____
Charles V. Weir, General Manager

THIRD AMENDMENT TO THE
AGREEMENT FOR TREASURER SERVICES

THE THIRD AMENDMENT TO THE AGREEMENT FOR TREASURER SERVICES ("Third Amendment") is entered into and effective as of the ___th day of November, 2022 by and between the LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY ("LAVWMA") and DUBLIN SAN RAMON SERVICES DISTRICT ("DSRSD").

RECITALS

WHEREAS, LAVWMA is a joint powers agency comprised of the cities of Livermore and Pleasanton and the Dublin San Ramon Services District ("Member Agencies");

WHEREAS, the Member Agencies are parties to that certain Amended and Restated Joint Exercise of Powers Agreement for the Livermore-Amador Valley Water Management Agency dated July 21, 1997 ("JPA");

WHEREAS, Paragraph 10.1 of the JPA provides that (a) any consultant or employee of LAVWMA may also be a consultant or employee of any of the Member Agencies, (b) if any officer, agent, or employee of a Member Agency performs services for LAVWMA, the manner of reimbursing the Member Agency for such services shall be governed by contract, and (c) the appointment by LAVWMA of an employee of a Member Agency to perform services for LAVWMA shall be sufficient evidence that the two positions are compatible;

WHEREAS, Paragraph 10.4 of the JPA provides that the LAVWMA Board shall designate a Treasurer;

WHEREAS, LAVWMA and DSRSD entered into a First Amendment of the Agreement for Treasurer Services dated October 16, 2013 ("First Amendment") to retain John Archer, an employee of DSRSD, to serve as its Treasurer; and

WHEREAS, LAVWMA and DSRSD entered into a Second Amendment of the Agreement for Treasurer Services dated November 17, 2016 ("Second Amendment") to retain Carol Atwood, an employee of DSRSD, to serve as its Treasurer; and

WHEREAS, the parties wish to designate Herman Chen, an employee of DSRSD, to serve as Assistant Treasurer ("Assistant Treasurer") to support investment efforts and add additional backup and segregation of duties;

WHEREAS, DSRSD, warrants to LAVWMA that Assistant Treasurer is skilled and able to provide the services described in Section 3 of the Second Amendment.

AGREEMENT

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH HERIN, THE PARTIES HERETO AGREE AS FOLLOWS:

1. Incorporation of Recitals. The recitals set forth above, and all defined terms set forth in such recitals and in the introductory paragraph preceding the recitals, are hereby incorporated into this Agreement as if set forth herein in full.

2. Third Amendment of Agreement for Treasurer Services. Section 2(B) of the Second Amendment of Agreement for Treasurer Services is amended to read as follows:

   "B. DSRSD shall assign Carol Atwood to act as Treasurer and Herman Chen to act as Assistant Treasurer to LAVWMA. DSRSD shall not change its assigned representatives without the prior written consent of LAVWMA, and such consent shall not unreasonably be withheld. Notwithstanding the foregoing, LAVWMA hereby consents to have portions of the Services provided by DSRSD employees who perform similar services in connection with financial services being performed for DSRSD, subject to such limitations and reporting requirements as apply to their respective duties at DSRSD."

3. Agreement in Effect. Except as expressly set forth in this Third Amendment, the Agreement is otherwise unmodified and shall remain in full force and effect and is incorporated and restated herein as if set forth at length. Each reference in the Agreement to itself shall be deemed to also refer to this Third Amendment.

4. Counterpart Signatures. This Third Amendment may be signed in multiple counterparts which, when signed by all parties, shall constitute a binding agreement.

IN WITNESS WEREOF, LAVWMA and DSRSD have executed this Agreement as of the date first above written.

LAVWMA	DSRSD
By: _____	By: _____
Charles V. Weir General Manager	Daniel McIntyre General Manager
APPROVED AS TO FORM:	Attest:
By: _____	By: _____
Alexander M. Barnhill General Counsel	Nicole Genzale District Secretary

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

ITEM NO. 11 QUARTERLY REPORT OF OPERATIONS FOR 1ST QUARTER FY2022-2023

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

Summary
LAVWMA's Quarterly Report of Operations for the 1st Quarter, FY 2022-2023 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 17% of the year to date budget.

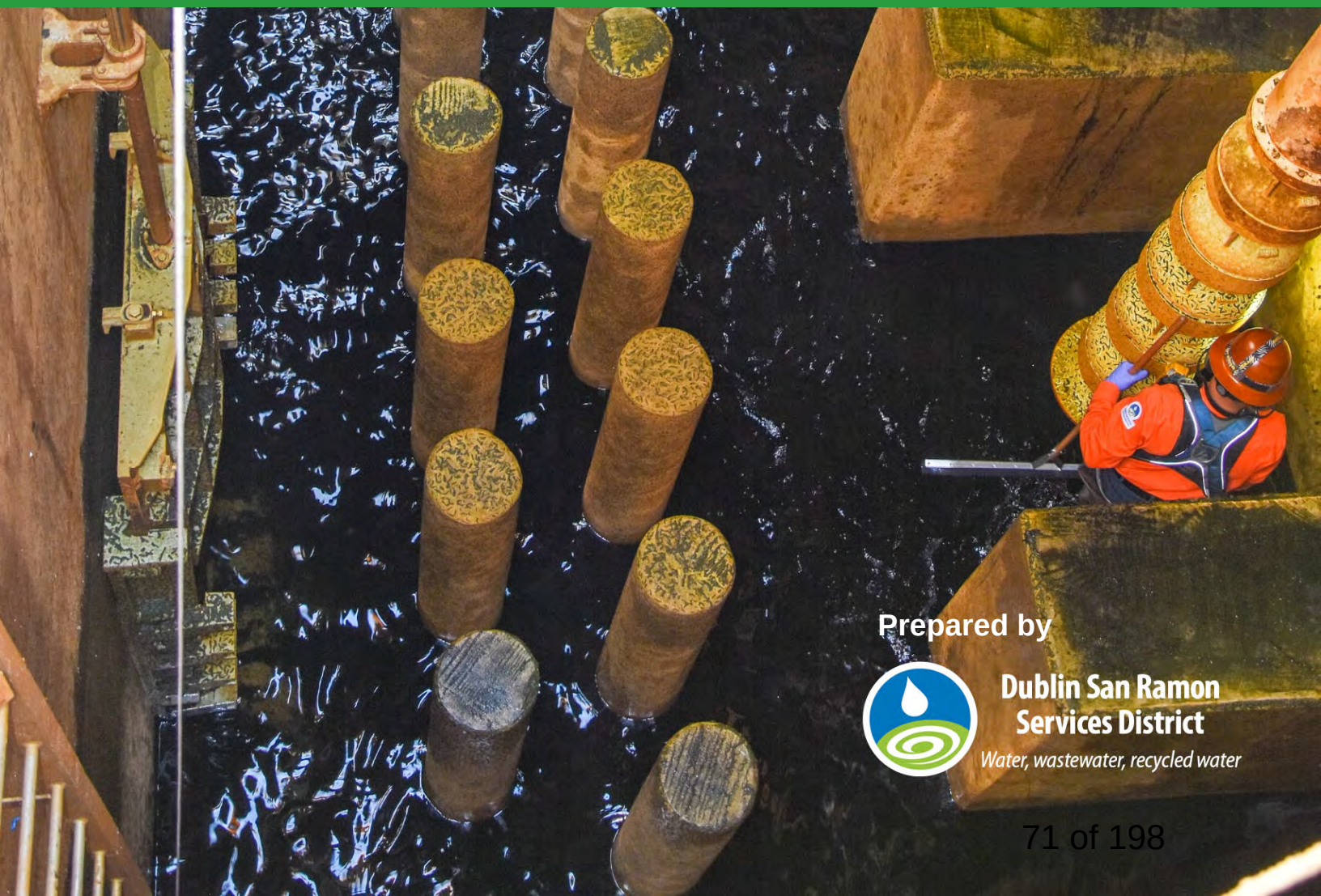
Recommendation
None at this time. This is an information item only.

Attachments
LAVWMA Quarterly Report of Operations, 1st Quarter, FY2022-2023.

LAVWMA

QUARTERLY REPORT OF OPERATIONS

FY 2022-2023, 1st Quarter



Prepared by

Dublin San Ramon Services District

Water, wastewater, recycled water

QUARTERLY REPORT OF OPERATIONS
LAVWMA PUMPING AND CONVEYANCE SYSTEM
1st Quarter FY 2022-2023: July to September 2022

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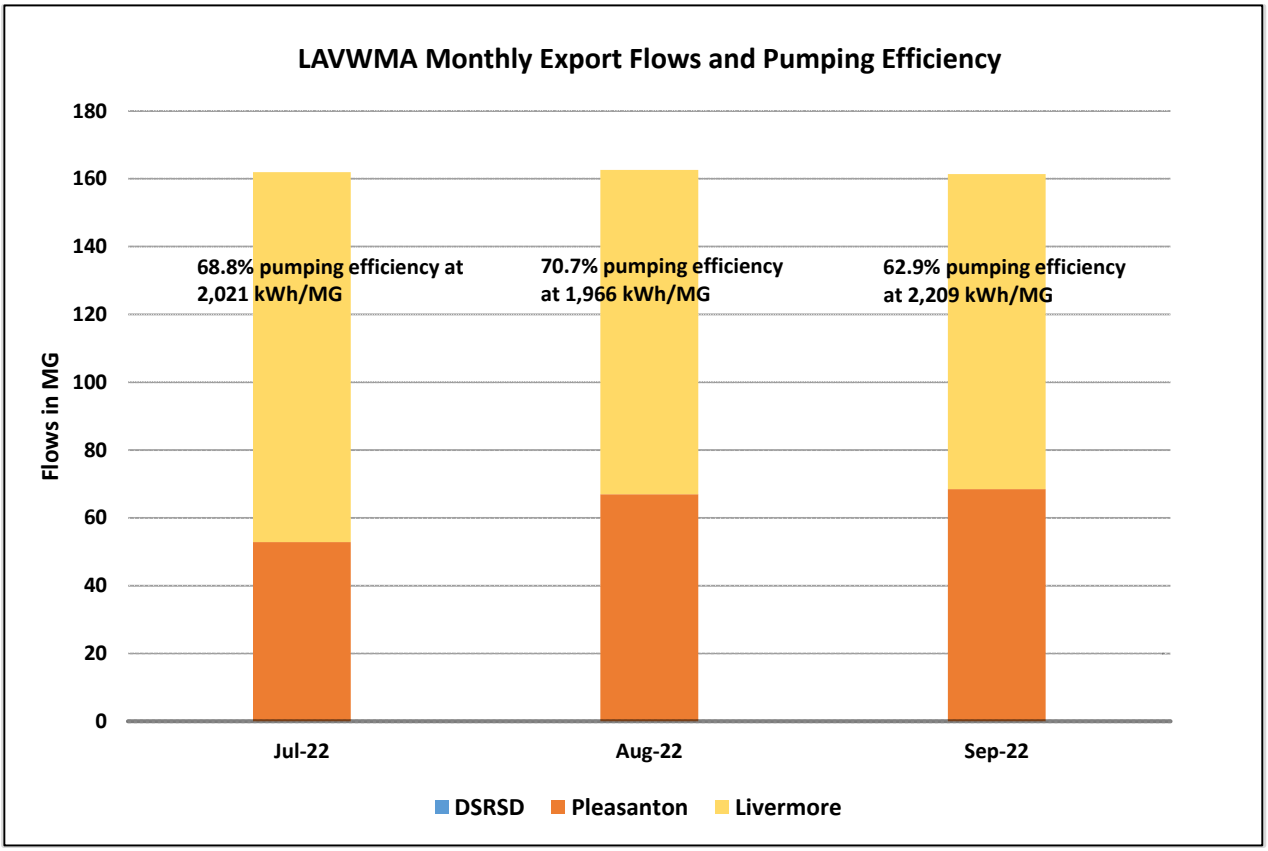
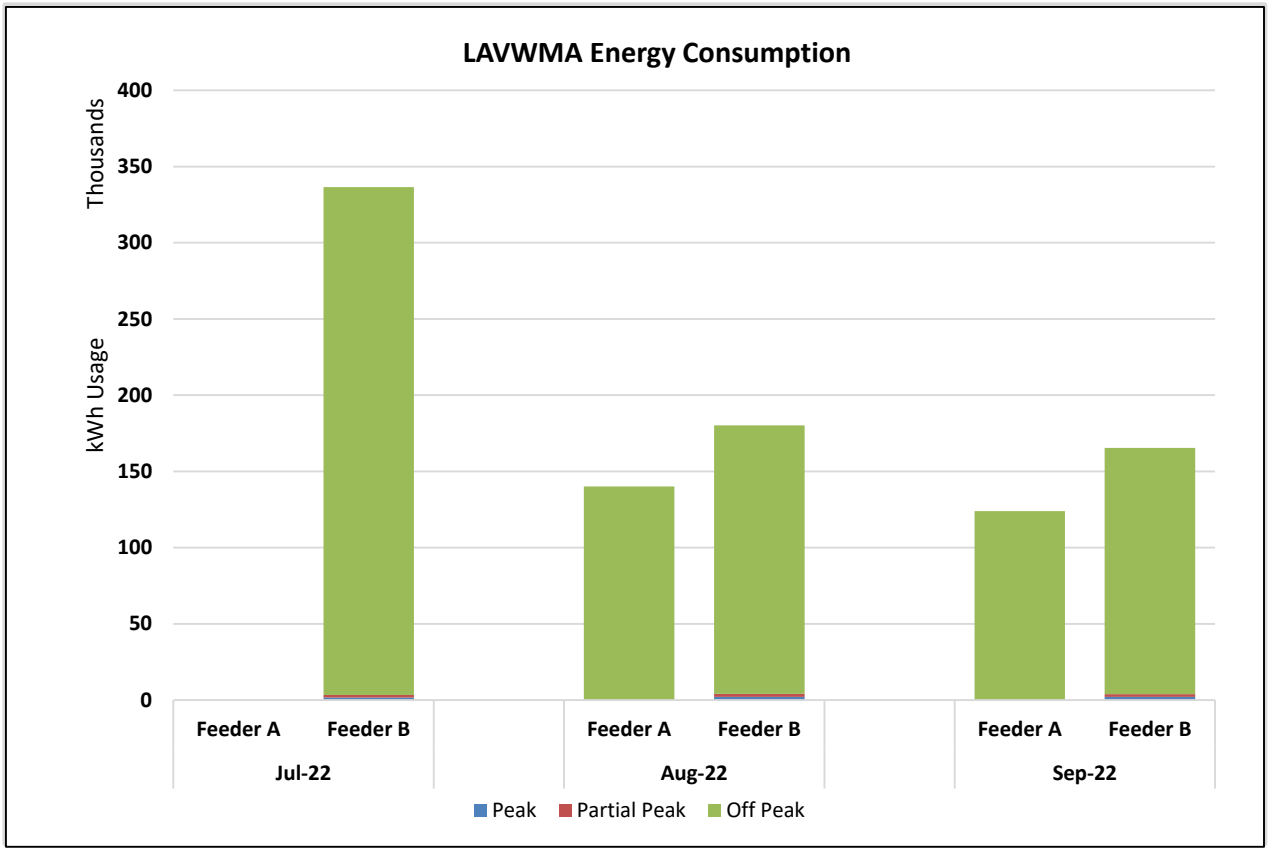
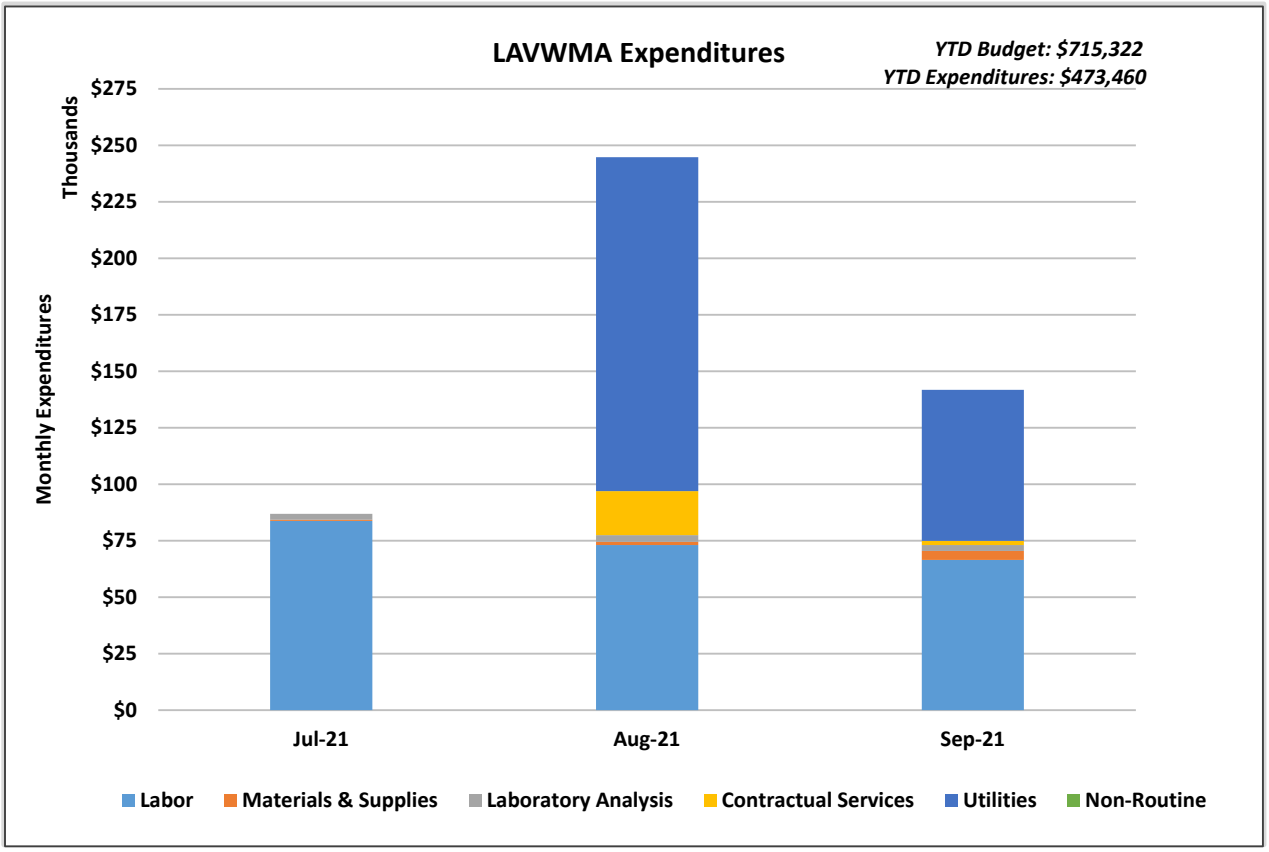
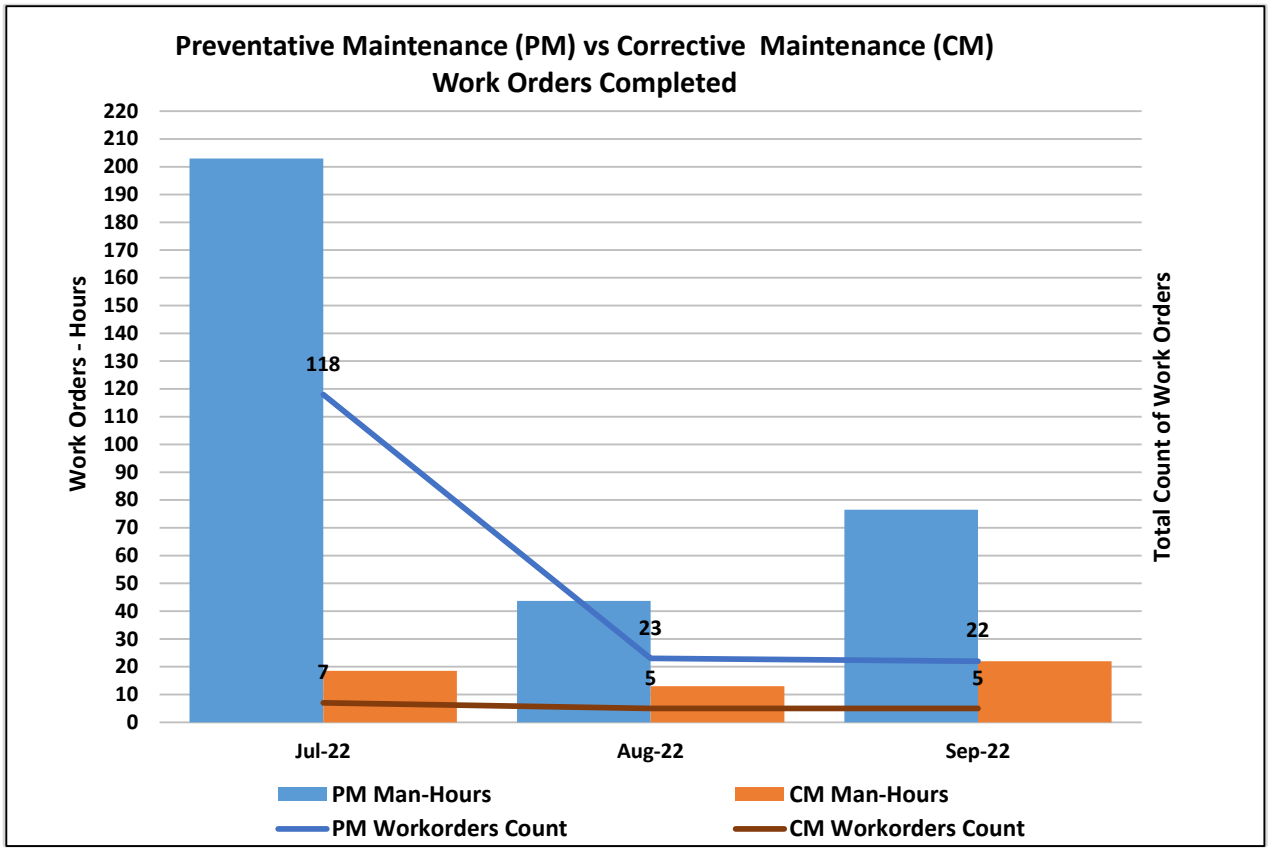

LAVWMA Monthly Export Flows and Pumping Efficiency
Flows in MG
180
160
140
120
100
80
60
40
20
0
68.8% pumping efficiency at 2,021 kWh/MG
70.7% pumping efficiency at 1,966 kWh/MG
62.9% pumping efficiency at 2,209 kWh/MG
Jul-22
Aug-22
Sep-22
DSRSD
Pleasanton
Livermore


LAVWMA Energy Consumption
Thousands
kWh Usage
400
350
300
250
200
150
100
50
0
Feeder A
Feeder B
Jul-22
Feeder A
Feeder B
Aug-22
Feeder A
Feeder B
Sep-22
Peak
Partial Peak
Off Peak


LAVWMA Expenditures
YTD Budget: $715,322
YTD Expenditures: $473,460
Monthly Expenditures
Thousands
$275
$250
$225
$200
$175
$150
$125
$100
$75
$50
$25
$0
Jul-21
Aug-21
Sep-21
Labor
Materials & Supplies
Laboratory Analysis
Contractual Services
Utilities
Non-Routine


Preventative Maintenance (PM) vs Corrective Maintenance (CM)
Work Orders Completed
Work Orders - Hours
Total Count of Work Orders
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
118
23
22
7
5
5
Jul-22
Aug-22
Sep-22
PM Man-Hours
CM Man-Hours
PM Workorders Count
CM Workorders Count

QUARTERLY REPORT OF OPERATIONS
LAVWMA PUMPING AND CONVEYANCE SYSTEM
1st Quarter FY 2022-2023: July to September 2022

1. EXECUTIVE SUMMARY

The Livermore-Amador Valley Water Management Agency (LAVWMA) pumping and effluent conveyance system operated normally during the first quarter of FY 2022-2023. During the quarter, a total of 485.94 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 67.5%, with an average electrical cost of $463 per million gallons, or $151 per acre-foot.

Total year-to-date operations and maintenance (O&M) expense is $473,460 or 17% of the O&M annual budget amount of $2,861,290 and the overall cost of operation is $974 per million gallons pumped or $317 per acre-foot.

2. OPERATIONS

Of the 485.94 million gallons of effluent conveyed through the LAVWMA system, approximately 298 million gallons was from the City of Livermore, 188 million gallons from City of Pleasanton and none 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.

Currently PG&E implements a rate plan – broken down into peak, partial peak, off peak, and seasonal super off peak periods – that increases rates for energy used during certain periods of the day, based on energy demand across the energy grid. Throughout the reporting period, staff utilized an enhanced Operations Strategy, implementing an efficient pumping plan and avoided pumping during partial peak and peak PG&E energy demand periods where feasible.

In the past quarter, DSRSD staff continued to strategically manage LAVWMA's holding basins to minimize the number of pumps running during a given billing cycle, based on anticipated flow from the City of Livermore and DSRSD's wastewater treatment facilities. As a result, energy use was minimal, as is depicted by the LAVWMA Energy Consumption table on page 2.

As part of the Operations Energy Strategy, DSRSD staff continued to minimize demand costs by alternating Feeder operating pumps during the dry weather period. This may be more complicated at times during wet weather but is manageable during much of the year.

DSRSD's Asset Management program is quickly growing in technology capable of predictive maintenance and risk reduction. The LAVWMA pipeline is equipped with over 60 vaults designed to protect the pipeline from damage. The vaults have equipment that releases air or lets air in, depending on the location. Historically the equipment malfunctions and the treated effluent water overfills the vault and is released to the environment due to the reaction time staff received a call and responds. The pilot of new water level watchdog devices in the vaults has been very successful. During the quarter there was one incident where smart detectors installed along the LAVWMA line alerted staff of potential overflow situations. As a result, staff were able to quickly respond and resolve the emergency before an overflow took place.

3. MAINTENANCE

During the quarter, 323 hours were spent to complete 163 preventative maintenance work orders and 54 hours to complete 17 corrective maintenance work orders on LAVWMA equipment and systems.

The following are some noteworthy maintenance activities during the quarter:

Electrical:

- Assisted with LAVWMA MCC during system outage requests
- Updated LAVWMA MCC install switches and relay settings
- Replaced LAVWMA MCC handles and tested pumps to ensure optimal operation
- Conducted repairs and replacements for the Uninterruptible Power Supply (UPS)
- Replaced damaged light pole on LAVWMA property

Instrumentation and Controls:

- Ongoing procurement of hardware to upgrade the remote monitoring equipment for all CP rectifier panels
- Completed training for new pump station operational dashboard
- Corrected issues with alarm notification software and mobile phones
- Added vibration sensor and monitoring equipment into the SCADA historian and developed a trend screen
- Repaired a comms issue with the security system and the front gate
- Provided energy and power data for Energy Master Plan consultant
- Corrected Remote I/O issues with LAVMWA RTU
- Installed Windows updates on LAVWMA SCADA server
- Replaced pH monitoring sensor on DSRSD influent and effluent pipelines

Mechanical:

- Assigned asset ID numbers at junction structure
- Replaced DSRSD sample pump inside junction structure
- Responded to smart detector alerts and repaired air release equipment on two occasions

4. BUDGET VARIANCE AND EXPENSES

Fourth quarter labor expenses totaled $223,370 for 1,121 man-hours of effort, an average of 2.2 full time equivalents (FTEs). O&M expenses for the quarter including labor, supplies, laboratory analysis, contractual services, and utilities totaled $473,460 for an average cost of $974 per million gallons pumped or $317 per acre-foot. The total expense for the Livermore sole use pipeline for the quarter was $802.

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

5. ITEMS OF INTEREST

On July 2, the Wastewater Treatment Plant experienced two unplanned power outages which affected LAVWMA facilities. Fortunately, in both instances there was sufficient reservoir storage available to withstand the outage and power was restored the same day.

A heat wave took place September 1 - 9, with 7 days exceeding 100 degrees F and a maximum temperature recorded at 111.2 degrees F. LAVWMA production was not impacted by the weather event.

PG&E peak day pricing events were called for the following days throughout the quarter: July 11, July 18, July 21, August 16, August 17, August 19, September 1, September 5, September 6, and September 7. DSRSD staff achieved the Operational Strategy and ensured that no LAVWMA pumps were run during the affected hours.

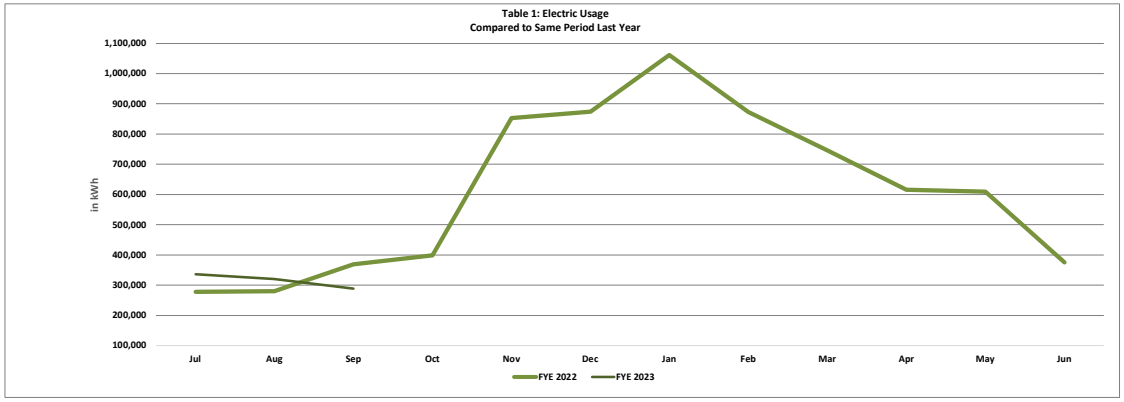
6. CAPITAL PROJECTS

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

LAVWMA SYSTEM: Fiscal Year 2022-2023, Quarterly Report

	PG&E Service Accounts: Rate Schedule B20 starting March 2021																Total	Pumping			
	Acct # 8482061923-1 Service A						Acct # 8440395259-5 Service B						Billing	Total			Export	Energy	Cost		Efficiency
Month	kWh	Peak	Partial Peak	Off Peak	Super Off Peak	$	kWh	Peak	Partial Peak	Off Peak	Super Off Peak	$	Days	kWh	$/kWh	$	Flow[1] MG	kWh/MG	$/MG	$/AF	%
Jul-22	**0**	**0**	**0**	**0**	**0**	**$1,807**	**336,556**	**1,732**	**1,635**	**333,189**	**0**	**$72,791**	**31**	336,556	$0.22	$74,598	167	2,021	$448	$146	68.8%
Aug-22	**140,062**	**0**	**44**	**140,018**	**0**	**$30,882**	**180,226**	**2,139**	**1,914**	**176,173**	**0**	**$40,618**	**32**	320,288	$0.22	$71,500	163	1,966	$439	$143	70.7%
Sep-22	**123,902**	**0**	**0**	**123,902**	**0**	**$28,070**	**165,391**	**2,105**	**1,813**	**161,473**	**0**	**$37,727**	**30**	289,293	$0.23	$65,797	131	2,209	$502	$164	62.9%
Oct-22																	114	0	$0	$0	n/a
Nov-22																	0	n/a	n/a	n/a	n/a
Dec-22																	0	n/a	n/a	n/a	n/a
Jan-23																	0	n/a	n/a	n/a	n/a
Feb-23																	0	n/a	n/a	n/a	n/a
Mar-23																	0	n/a	n/a	n/a	n/a
Apr-23																	0	**n/a**	**n/a**	**n/a**	**n/a**
May-23																	0	**n/a**	**n/a**	**n/a**	**n/a**
Jun-23																	0	**n/a**	**n/a**	**n/a**	**n/a**
Quarter																					
Average	87,988					$20,253	227,391					$50,378	31	315,379	$0.22	$70,632	153	2,065	**$463**	**$151**	**67.5%**
Total	263,964					$60,760	682,173					$151,135	93	946,137		$211,895	460	6,196			
Minimum	0					$1,807	165,391					$37,727	30	289,293	$0.22	$65,797	131	1,966	$439	$143	62.9%
Maximum	140,062					$30,882	336,556					$72,791	32	336,556	$0.23	$74,598	167	2,209	$502	$164	70.7%
YTD																					
Average	87,988					$20,253	227,391					$50,378	31	315,379	$0.22	$70,632	48	1,549	$347	$113	67.5%
Total	263,964					$60,760	682,173					$151,135	93	946,137		$211,895	575	6,196			
Minimum	0					$1,807	165,391					$37,727	30	289,293	$0.22	$65,797	0	0	$0	$0	62.9%
Maximum	140,062					$30,882	336,556					$72,791	32	336,556	$0.23	$74,598	167	2,209	$502	$164	70.7%



NOTES:

1) **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**: 6/13 - 7/13 for July, 7/14 - 8/14 for August, and 8/15 - 9/13 for September.

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

LAVWMA SYSTEM: Fiscal Year 2022-2023, Quarterly Report

Month	Pump No. 1 Hours	Pump No. 2 Hours	Pump No. 3 Hours	Pump No. 4 Hours	Pump No. 5 Hours	Pump No. 6 Hours	Pump No. 7 Hours	Pump No. 8 Hours	Pump No. 9 Hours	Pump No. 10 Hours	TOTAL Pump Run Hours	TOTAL Pump Utilization %
Jul-22	**0**	**14**	**0**	**338**	**0**	**1**	**0**	**1**	**182**	**183**	**719**	**9.7%**
Aug-22	**0**	**1**	**95**	**296**	**0**	**1**	**93**	**1**	**0**	**298**	**784**	**10.5%**
Sep-22	**0**	**79**	**87**	**124**	**118**	**1**	**125**	**23**	**188**	**124**	**869**	**12.1%**
Oct-22											0	0.0%
Nov-22											0	0.0%
Dec-22											0	0.0%
Jan-23											0	0.0%
Feb-23											0	0.0%
Mar-23											0	0.0%
Apr-23											0	0.0%
May-23											0	0.0%
Jun-23											0	0.0%
Quarter												
Average	0	31	61	253	40	1	73	8	124	202	791	10.8%
Total	0	93	182	758	119	2	218	24	371	605	2,373	
Minimum	0	1	0	124	0	1	0	1	0	124	719	9.7%
Maximum	0	79	95	338	118	1	125	23	188	298	869	12.1%
YTD												
Average	0	31	61	253	40	1	73	8	124	202	198	2.7%
Total	0	93	182	758	119	2	218	24	371	605	2,373	
Minimum	0	1	0	124	0	1	0	1	0	124	0	0.0%
Maximum	0	79	95	338	118	1	125	23	188	298	869	12.1%

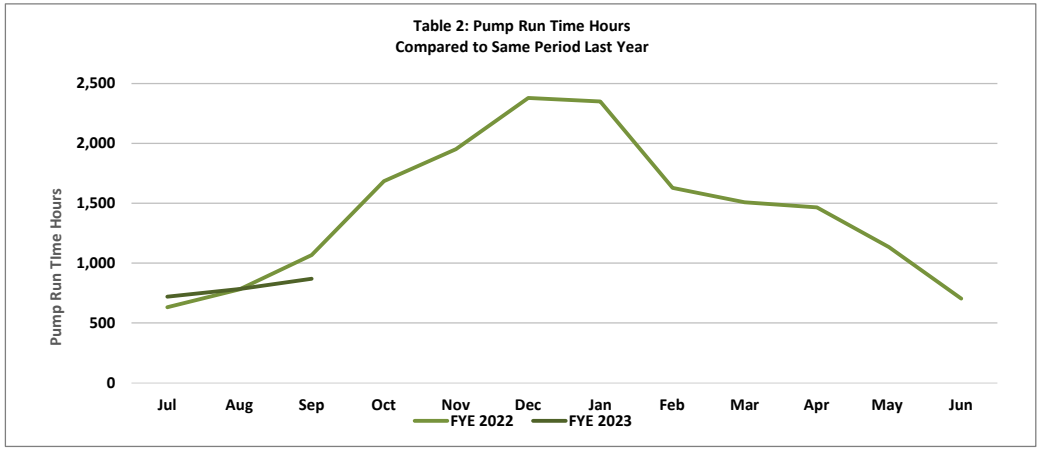
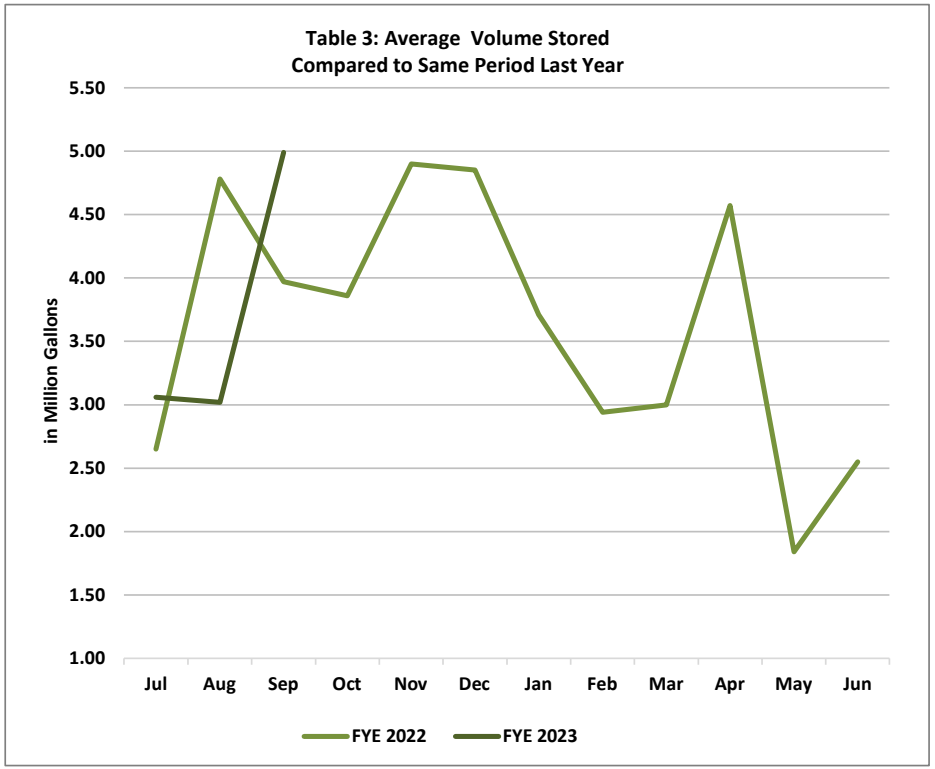


TABLE 3 - Monthly Average Storage Basin Levels and Volume

LAVWMA SYSTEM: Fiscal Year 2022-2023, Quarterly Report

	Average Daily Volume			Average		Storage
	Basin	Basin	Basin	Volume	Storage	Basin
	No. 1	No. 2	No. 3	Stored	Available	Utilization
Month	Feet	Feet	Feet	MG	MG	%
Jul-22	**1.58**	**0.21**	**4.24**	**3.06**	**18**	**17.0%**
Aug-22	**2.17**	**0.22**	**3.82**	**3.02**	**18**	**16.8%**
Sep-22	**3.18**	**1.52**	**5.08**	**4.99**	**18**	**27.7%**
Oct-22					18	0.0%
Nov-22					18	0.0%
Dec-22					18	0.0%
Jan-23					18	0.0%
Feb-23					18	0.0%
Mar-23					18	0.0%
Apr-23					18	0.0%
May-23					18	0.0%
Jun-23					18	0.0%
Quarter						
Average	2.68	0.87	4.45	3.69		0.21
Minimum	2.17	0.22	3.82	3.02		0.17
Maximum	3.18	1.52	5.08	4.99		0.28
YTD						
Average	2.68	0.87	4.45	3.69		5.1%
Minimum	2.17	0.22	3.82	3.02		0.0%
Maximum	3.18	1.52	5.08	4.99		27.7%



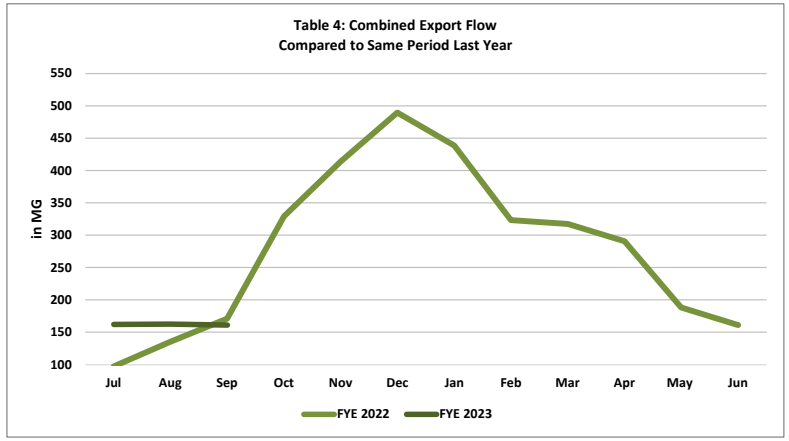
Note: Total available storage volume is 18 million gallons.

TABLE 4 - Monthly Export Flow

LAVWMA SYSTEM: Fiscal Year 2022-2023, Quarterly Report
Estimated Flow: 3,552 MG

Month	Dublin San Ramon Flow * MG	Pleasanton Flow * MG	Livermore Flow MG	Combined Export Flow MG	Total for Quarter	PGE tab
Jul-22	**0.00**	**52.86**	**109.08**	**161.93**		161.93
Aug-22	**0.00**	**66.98**	**95.65**	**162.62**		162.62
Sep-22	**0.00**	**68.48**	**92.90**	**161.38**	**485.94**	161.38
Oct-22	0.00	0.00				0.00
Nov-22	0.00	0.00				0.00
Dec-22	0.00	0.00			0.00	0.00
Jan-23	0.00	0.00				0.00
Feb-23	0.00	0.00				0.00
Mar-23	0.00	0.00			0.00	0.00
Apr-23	0.00	0.00				0.00
May-23	0.00	0.00				0.00
Jun-23	0.00	0.00			0.00	88.82
Quarter						
Total	0.00	188.31	297.63	**485.94**		
Average	0.00	62.77	99.21	161.98		
Minimum	0.00	52.86	92.90	161.38		
Maximum	0.00	68.48	109.08	162.62		
YTD					Budgeted Flow:	
Total	0.00	188.31	297.63	**485.94**	3552	
Average	0.00	15.69	99.21	161.98		
Minimum	0.00	0.00	92.90	161.38		
Maximum	0.00	68.48	109.08	162.62		

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



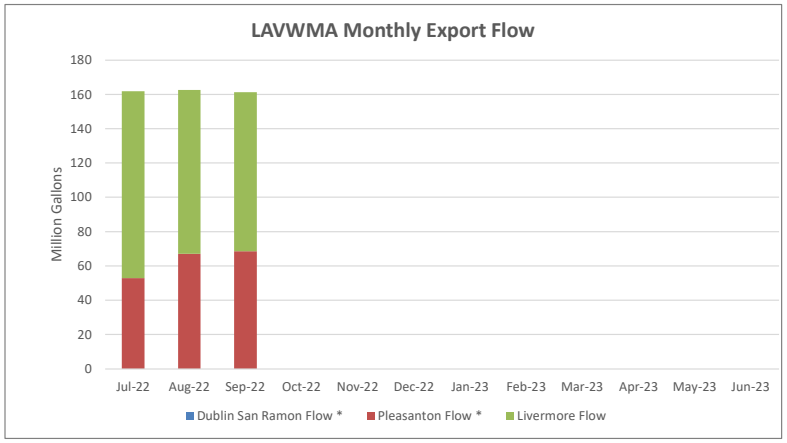


TABLE 5 - Labor Effort, Expenditures, and Budget Utilization

LAVWMA SYSTEM: Fiscal Year 2022-2023, Quarterly Report

FY Labor Budget $1,161,350

Month	Billed Labor Hours	FTE Equiv	Labor Invoice	YTD Labor Expense	Budget Utilization	Labor Budget Remaining	Export Flow MG	Export Flow AF
Jul-22	**433.0**	**2.5**	**$83,781**	**$83,781**	**7.2%**	**$1,077,569**	**161.93**	497
Aug-22	**345.0**	**2.0**	**$73,088**	**$156,869**	**13.5%**	**$1,004,481**	**162.62**	499
Sep-22	**343.0**	**2.0**	**$66,501**	**$223,370**	**19.2%**	**$937,980**	**161.38**	495
Oct-22								
Nov-22								
Dec-22								
Jan-23								
Feb-23								
Mar-23								
Apr-23								
May-23								
Jun-23								
QUARTER								
Total	**1,121.0**		**$223,370**				485.94	1,491
Average	373.7	**2.2**	$74,457				161.98	497
Minimum	343.0	2.0	$66,501				161.38	495
Maximum	433.0	2.5	$83,781				162.62	499
YTD								
Total YTD	1,121.0		$223,370		**19.2%**	$937,980	485.94	1,491
Average YTD	373.7	2.2	$74,457				161.98	497
Minimum	343.0	2.0	$66,501				161.38	495
Maximum	433.0	2.5	$83,781				162.62	499

Notes:

TABLE 6 - O&M Expenditures and Budget Utilization

LAVWMA SYSTEM: Fiscal Year 2022-2023, Quarterly Report

Total O&M Budget: $2,861,289

Month	Labor Expenses	A/P Expenses	Total O&M Expenses	YTD O&M Expenses	Budget Utilization	O&M Budget Remaining	Overall O&M Cost $/MG	Overall O&M Cost $/AF	Export Flow MG	Export Flow AF
Jul-22	**$83,781**	**$3,146**	**$86,927**	**$86,927**	**3.0%**	**$2,774,362**	**$537**	**$175**	**161.93**	**497**
Aug-22	**$73,088**	**$171,670**	**$244,757**	**$331,684**	**11.6%**	**$2,529,605**	**$1,505**	**$490**	**162.62**	**499**
Sep-22	**$66,501**	**$75,275**	**$141,776**	**$473,460**	**16.5%**	**$2,387,829**	**$879**	**$286**	**161.38**	**495**
Oct-22										
Nov-22										
Dec-22										
Jan-23										
Feb-23										
Mar-23										
Apr-23										
May-23										
Jun-23										
QUARTER										
Total	$223,370	$250,090	**$473,460**				**$974**	**$317**	485.94	1,491
Average	$74,457	$83,363	$157,820						161.98	497
Minimum	$66,501	$3,146	$86,927				$537	$175	161.38	495
Maximum	$83,781	$171,670	$244,757				$1,505	$490	162.62	499
YTD										
Total YTD	$223,370	$250,090	**$473,460**		**16.5%**	**$2,387,829**	**$974**	**$317**	**485.94**	**1,491**
Average YTD	$74,457	$83,363	$157,820							
Minimum	$66,501	$3,146	$86,927				$537	$175	161.38	495
Maximum	$83,781	$171,670	$244,757				$1,505	$490	162.62	499

Notes:

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

LAVWMA SYSTEM: Fiscal Year 2022-2023, Quarterly Report

	Livermore Sole Use Facilities		
Month	Labor Expenses	A/P Expenses	Total Expenses
Jul-22	**$0**	**$0**	**$0**
Aug-22	**$0**	**$545**	**$545**
Sep-22	**$0**	**$257**	**$257**
Oct-22	$0	$0	$0
Nov-22	$0	$0	$0
Dec-22	$0	$0	$0
Jan-23	$0	$0	$0
Feb-23	$0	$0	$0
Mar-23	$0	$0	$0
Apr-23	$0	$0	$0
May-23	$0	$0	$0
Jun-23	$0	$0	$0
Quarter			
Total	**$0**	**$802**	**$802**
Average	$0	$267	$267
Minimum	$0	$0	$0
Maximum	$0	$545	$545
YTD			
YTD Total	$0	$802	$802
YTD Average	$0	$67	$67
YTD Minimum	$0	$0	$0
YTD Maximum	$0	$545	$545

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES: GOODS & SERVICES

Current FY Period: 3

ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&M															
	Budget	July	August	September	October	November	December	January	February	March	April	May	June	YTD	YTD
	FY 2022-2023	2022	2022	2022	2022	2022	2022	2023	2023	2023	2023	2023	2023	TOTAL	Budget
Labor															
Staff	$1,161,350	$83,781	$73,088	$66,501										$223,370	$290,338
Subtotal	**$1,161,350**	**$83,781**	**$73,088**	**$66,501**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$223,370**	**$290,338**
Materials & Supplies															
Operations Supplies	$13,650	$74	$12	$12										$99	$3,413
Mechanical Supplies	$27,300	$432	$238	$249										$919	$6,825
Electrical Supplies	$48,447	$19	$1,188	$3,675										$4,882	$12,112
Subtotal	**$89,397**	**$526**	**$1,438**	**$3,936**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$5,900**	**$22,349**
Laboratory Analysis															
Compliance Testing	$10,500	$848	$1,060	$848										$2,756	$2,625
Operational Support Testing	$4,200	$392	$392	$392										$1,176	$1,050
Special Sampling	$23,100	$1,380	$1,490	$1,380										$4,250	$5,775
Subtotal	**$37,800**	**$2,620**	**$2,942**	**$2,620**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$8,182**	**$9,450**
Contractual Services															
Sub-surface Repairs	$15,750													$0	$3,938
Street Sweeping	$5,250													$0	$1,313
Cathodic Protection Survey & Repairs	$31,500													$0	$7,875
Underground Service Alert	$4,725													$0	$1,181
SCADA software maintenance contract	$17,850		$5,052											$5,052	
Remote monitoring annual service for PS and Rec	$5,250													$0	
Med voltage switchgear 3-yr PM (FY22, $18k))														$0	
HVAC Maintenance/Repairs	$788													$0	$197
Termite/Pest Control	$945													$0	$236
Landscape/weed maintenance	$10,500			$980										$980	$2,625
Janitorial Service	$9,975	*paid in July*	$440	$880										$1,320	$2,494
Fire Extinguisher Maintenance	$210													$0	$53
Postage/Shipping Charges	$0													$0	$0
Misc Professional/Contractual Services	$31,500		$14,008											$14,008	$7,875
Subtotal	**$134,243**	**$0**	**$19,499**	**$1,860**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$21,359**	**$33,561**
Utilities															
Electricity (PG&E)	$1,430,205	*paid in Aug*	$147,188	$66,310										$213,498	$357,551
Water & Sewer (Pleasanton)	$945		$396	$327										$722	$236
Water (EBMUD)	$1,050		$207	$222										$429	$263
Telephone/communications	$6,300													$0	$1,575
WW Treatment (DSRSD)	$0													$0	$0
Subtotal	**$1,438,500**	**$0**	**$147,790**	**$66,859**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$214,650**	**$359,625**
Non-Routine															
	$0													$0	$0
	$0													$0	$0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Monthly Total		**$86,927**	**$244,757**	**$141,776**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$473,460**	**$715,323**
YTD Total	**$2,861,290**	**$86,927**	**$331,684**	**$473,460**	**$473,460**	**$473,460**	**$473,460**	**$473,460**	**$473,460**	**$473,460**	**$473,460**	**$473,460**	**$473,460**		
Combined Export Flow, mg	**3552**	**162**	**163**	**161**										**486**	**888**
Pumping Efficiency															
Monthly Cost, $/mg		**$537**	**$1,505**	**$879**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		
YTD Running Cost, $/mg	**$805**	**$537**	**$1,022**	**$974**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$974**	

Q1 Notes:
PG&E bills for Feeder A and B for July were actually paid in August (processed late due to MUNIS transition issues)
Landscaping: July was paid in Aug and Sep expenditure includes both Aug and Sep invoices

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES: LABOR

Current FY Period: 3

ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&M															
FY 2022-2023		**Jul 2022**	**Aug 2022**	**Sep 2022**	**Oct 2022**	**Nov 2022**	**Dec 2022**	**Jan 2023**	**Feb 2023**	**Mar 2023**	**Apr 2023**	**May 2023**	**Jun 2023**	**YTD TOTAL**	**YTD Budget**
Estimated Personnel Hours															
Division 51 - FOD	**40**	-	-	-	-	-	-	-	-	-	-	-	-	-	**10.00**
Water/Wastewater Sys Lead Op	**0**													-	-
Water/Wastewater Sys OP IV-On Call	**0**													-	-
Water/Wastewater Sys OP IV	**30**													-	7.50
Water/Wastewater Sys OP III	**0**													-	-
Water/Wastewater Sys OP II	**10**													-	2.50
Maintenance Worker	**0**													-	-
Supervisor	**0**													-	-
Division 52 - WWTP	**3,080**	**133.00**	**121.50**	**171.00**	-	-	-	-	-	-	-	-	-	**425.50**	**770.00**
Process Lead Operator IV/V	**150**		24.00	1.00										25.00	37.50
Senior WWTP Operator III	**720**	37.00	73.50	79.50										190.00	180.00
Operator In Training	**400**	59.50	9.00	79.50										148.00	100.00
Operator II	**1,700**	36.50	15.00	11.00										62.50	425.00
Operator II (SLSS)	**0**													-	-
Operations Superintendent	**110**													-	27.50
Division 53 - MECH	**1,230**	**149.50**	**171.00**	**138.50**	-	-	-	-	-	-	-	-	-	**459.00**	**307.50**
Senior Mechanic-Crane Cert	**60**	44.00	70.50	69.00										183.50	15.00
Senior Mechanic - USA	**80**		16.50	29.50										46.00	20.00
Maintenance Worker	**60**													-	15.00
Mechanic I/II	**980**	20.50	29.00	28.00										77.50	245.00
Mechanic II-Crane Cert	**0**	68.50	43.00	10.00										121.50	-
Mechanic I/II - USA	**0**		4.00	2.00										6.00	-
Mechanic II-Crane Cert - USA	**0**	16.50	8.00											24.50	-
Supervisor	**50**													-	12.50
Division 54 - ELEC	**1,130**	**136.00**	**44.00**	**31.00**	-	-	-	-	-	-	-	-	-	**211.00**	**282.50**
Senior Instrument/Controls Tech	**30**	18.00		1.00										19.00	7.50
Instrumentation & Controls Tech I/II	**300**	55.00	35.00	8.50										98.50	75.00
OPS Control Sys Spec	**300**													-	75.00
Senior Electrician	**30**													-	7.50
Electrician I/II	**440**	63.00	7.00	19.50										89.50	110.00
Principal Eletrical Engineer	**30**		2.00	2.00										4.00	7.50
Division 55 - Laboratory	**0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EC Inspector II-Pretreatment	**0**	-												-	-
Laboratory Technician	**0**	-												-	-
Supervisor	**0**	-												-	-
Division 26 - SAFETY	**60**	-	-	-	-	-	-	-	-	-	-	-	-	-	**15.00**
Safety Officer	**60**	-	-	-	-	-	-	-	-	-	-	-		-	15.00
Division 40 - ENG	**260**	**14.50**	**8.50**	**2.50**	-	-	-	-	-	-	-	-	-	**25.50**	**65.00**
Senior Engineer-Supervisory	**0**														-
Associate/Senior Civil Engineer-SME	**100**	14.50	4.50	2.50										21.50	25.00
Construction Inspector I/II	**80**		4.00											4.00	20.00
Engineering Technician II	**40**													-	10.00
GIS Analyst	**40**													-	10.00
Total Estimated Personnel Hours	**5,800**														
FTE	**2.8**														
Total Monthly Hours		**433.00**	**345.00**	**343.00**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,121.00**	**1,450.00**

Notes:

LAVWMA	July	2022

SELECT FIRST

Enter only numerical data in the result columns and only qualifiers in the qualifier columns. Any other comments should go in the corresponding cell on the Comments

Parameter	Flow	CBOD	TSS	pH	pH	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 (M	Daily Average	SM 9221 C,E-2006	Enterolert
MDL									
RL		2.0	4.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
7/1/2022	4.76			7.53	7.74	5.80	0.001		
7/2/2022	6.75			7.58	7.72	5.64	0.001		
7/3/2022	5.04			7.65	7.70	4.34	0.001		
7/4/2022	6.65			7.56	7.68	3.47	0.001		
7/5/2022	6.63			7.53	7.65	3.20	0.001	<2	<1
7/6/2022	6.61	6.5		7.54	7.67	3.39	0.001		
7/7/2022	6.69			7.58	7.67	2.70	0.001		
7/8/2022	6.68			7.53	7.64	2.24	0.001		
7/9/2022	6.73			7.58	7.69	2.04	0.001		
7/10/2022	6.72			7.58	7.69	1.84	0.001		
7/11/2022	5.71			7.53	7.67	1.69	0.001		
7/12/2022	2.11			7.45	7.74	0.96	0.001		
7/13/2022	6.61			7.55	7.82	0.54	0.000	2	1
7/14/2022	2.43	7.0	7.2	7.54	7.71	0.45	0.000		
7/15/2022	5.62			7.56	7.70	0.41	0.000		
7/16/2022	6.46			7.56	7.68	0.15	0.000		
7/17/2022	6.61			7.51	7.70	0.17	0.000		
7/18/2022	3.91			7.45	7.68	0.22	0.000		
7/19/2022	4.30			7.45	7.74	0.92	0.000	9	1
7/20/2022	3.54	3.0	4.5	7.53	7.85	2.85	0.000		
7/21/2022	4.56			7.58	7.74	3.45	0.000		
7/22/2022	4.35			7.54	7.70	3.35	0.000		
7/23/2022	5.56			7.58	7.75	3.93	0.000		
7/24/2022	4.09			7.56	7.77	4.15	0.000		
7/25/2022	4.41			7.51	7.78	3.63	0.000		
7/26/2022	4.66			7.53	7.78	3.43	0.000	11	3.1
7/27/2022	3.53	2.9	5.5	7.58	7.80	2.94	0.000		
7/28/2022	3.41			7.54	7.81	2.86	0.000		
7/29/2022	4.69			7.54	7.77	3.13	0.000		
7/30/2022	5.72			7.61	7.73	2.18	0.000		
7/31/2022	6.40			7.61	7.68	3.45	0.000		

LAVWMA	August	2022

SELECT FIRST

Parameter	Flow	CBOD	TSS	pH	pH	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	SM 5210 B-2011	SM 2540 D-20	SM 4500-H+B-	SM 4500-H+B	Daily Average	Daily Average (Mea	SM 9221 C,E-2006	Enterolert
MDL									
RL		2.0	4.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
8/1/2022							No data for the whole month. Online analyzer was out of service.		
8/2/2022									
8/3/2022									
8/4/2022									
8/5/2022									
8/6/2022									
8/7/2022									
8/8/2022									
8/9/2022									
8/10/2022									
8/11/2022									
8/12/2022									
8/13/2022									
8/14/2022									
8/15/2022									
8/16/2022								Water bath temperature exceeded the acceptable range. Result was invalidated.	
8/17/2022		Ave. MB=0.20mg/L							
8/18/2022									
8/19/2022									
8/20/2022									
8/21/2022									
8/22/2022									
8/23/2022									
8/24/2022									
8/25/2022									
8/26/2022									
8/27/2022									
8/28/2022									
8/29/2022									
8/30/2022									

LAVWMA	September	2022

SELECT FIRST

Enter only numerical data in the result columns and only qualifiers in the qualifier columns. Any other comments should go in the corresponding cell on the Comments

Parameter	Flow	CBOD	TSS	pH	pH	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 (M	Daily Average	SM 9221 C,E-2006	Enterolert
MDL		N/A	1.4					N/A	N/A
RL		2.0	4.5					2	1
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
9/1/2022	3.72			7.39	7.72	1.71			
9/2/2022	3.29			7.40	7.68	2.22			
9/3/2022	3.74			7.42	7.63	1.55			
9/4/2022	3.63			7.37	7.56	2.47			
9/5/2022	4.28			7.34	7.53	1.91			
9/6/2022	3.04			7.34	7.52	1.48		17	<1
9/7/2022	3.55	3.7	7.0	7.28	7.49	0.78			
9/8/2022	3.77			7.26	7.54	0.70			
9/9/2022	2.72			7.41	7.55	0.49			
9/10/2022	2.24			7.36	7.59	0.65			
9/11/2022	3.89			7.49	7.52	0.77			
9/12/2022	4.74			7.47	7.86	0.66			
9/13/2022	4.38			7.44	7.61	0.61		50	48
9/14/2022	4.03	3.6	7.9	7.51	7.70	0.53			
9/15/2022	4.77			7.53	7.61	0.47			
9/16/2022	4.72			7.49	7.69	0.85			
9/17/2022	4.76			7.54	7.62	0.54			
9/18/2022	5.10			7.39	7.61	0.73			
9/19/2022	6.91			7.49	7.64	0.54			
9/20/2022	8.91			7.44	7.60	0.65		4	<1
9/21/2022	9.00	3.4	9.2	7.49	7.78	0.85			
9/22/2022	8.80			7.51	7.64	0.66			
9/23/2022	8.90			7.51	7.61	0.52			
9/24/2022	9.17			7.47	7.59	0.71			
9/25/2022	8.81			7.47	7.63	0.74			
9/26/2022	5.70			7.44	7.66	0.79			
9/27/2022	7.70			7.34	7.62	0.41		<2	<1
9/28/2022	6.01	4.8	10.0	7.32	7.59	1.15			
9/29/2022	5.20			7.35	7.56	1.66			
9/30/2022	5.90			7.39	7.53	1.72			

DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY

LAVWMA - 3rd Quarter 2022

Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (ºC)	Ca Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	pH (Actual)	pH Saturation	Langlier Index
07/23/22	864	25.2	154	422	7.5	7.0	0.5
08/06/22	815	24.6	138	400	7.5	7.1	0.4
09/10/22	654	26.8	86	300	7.4	7.4	0.0
MAXIMUM	864	26.8	154	422	7.5	7.4	0.5
MINIMUM	654	24.6	86	300	7.4	7.0	0.0
AVERAGE	778	25.5	126	374	7.5	7.2	0.3

DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY

DSRSD - 3rd Quarter 2022

Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (ºC)	Ca Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	pH (Actual)	pH Saturation	Langlier Index
07/23/22	890	24.6	164	434	7.6	7.0	0.6
08/06/22	866	24.6	164	424	7.5	7.0	0.5
09/10/22	710	26.7	120	348	7.4	7.2	0.2
MAXIMUM	890	26.7	164	434	7.6	7.2	0.6
MINIMUM	710	24.6	120	348	7.4	7.0	0.2
AVERAGE	822	25.3	149	402	7.5	7.1	0.4

Note:
On 9/10/22, the field pH reading was inadvertently missed. The pH value was taken from SCADA.

CITY OF LIVERMORE
LIVERMORE WATER RECLAMATION PLANT

Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (ºC)	Ca Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	pH (Actual)	pH Saturation	Langlier Index
07/06/22	656	25.0	75	362	7.6	7.4	0.2
08/03/22	690	28.0	96	368	7.7	7.3	0.4
09/07/22	600	28.0	87	336	7.4	7.3	0.1
MAXIMUM	690	28.0	96	368	7.7	7.4	0.4
MINIMUM	600	25.0	75	336	7.4	7.3	0.1
AVERAGE	649	27.0	86	355	7.6	7.3	0.2

LAVWMA Action Item List **Month:** **Nov-22**

SAG Task	Responsible Party	Due Date	Status	Completion Date
Items for August 2022 LAVWMA Board Meeting.	SAG	NA	Several items this month. Updates on current capital projects, continuing with remote meetings, FYE22 Audit Report, moving money from LAIF to treasuries to improve return by up to 3% over LAIF, approval of Regional Purified Water Pilot Memorandum of Agreement (MOA) for Phase 2 (Public Outreach and Monitoring of Grant Funding Opportunities), legal and legislative issues, and the GM report.	
Operations Coordination Committee Task	**Responsible Party**	**Due Date**	**Status**	**Completion Date**
FYE21 Replacement Projects: See Items Below	Weir/Delight	Various dates	Refer to information below.	
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 complete. The Notice of Completion with Alameda County will be filed within the next week.	11/30/2022
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. A few areas are being resealed.	6/30/2021
San Leandro Sample Station Design Improvements. Estimated cost $1,000,000 plus engineering costs of $230,000 for a total of $1,230,000	Weir	12/31/2022	Final plans and specs are nearing completion. A meeting with HydroScience and DSRSD staff was held on November 7, 2022 to resolve remaining issues. Lead time on some major items is up to one year.	12/31/2023
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. We have heard nothing from Corrpro in several months. Will likely cancel their contract and have another firm do it. Will return to full system inspection this fiscal year.	6/30/2023
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 progressing.	
Pipeline Inspection. Estimated cost $100,000	TBD	6/30/2021	DSRSD has outlined a plan for an inspection in the Fall time frame. May need to be delayed due to other priorities.	
Smart Detectors on High Maintenance Air/Vac and Air Release Valves. Estimated cost $40,000	Quinlan	6/30/2022	Project is complete for six smart detectors. They have already prevented several spills due to advance notice to DSRSD staff.	6/30/2022
Replace three flow meters at the junction structure. Estimated cost is $250,000.	TBA	6/30/2023	The three flowmeters at the junction structure are at the end of their useful lives and are no longer as accurate as required for reporting purposes. The project will include replacing all three and then determine if further modifications, such as, snorkels, are required for the flow measurement accuracy required. The cost of the project includes the three meters plus installation and testing costs.	
Replace 17 valve actuators at the pump station. Estimated cost is $255,555.	Quinlan	6/30/2023	There are seventeen valves that have electric actuators at the pump station. All of the valves actuators were installed when the pump station was upgraded twenty years ago and they are at the end of their useful lives. The actuators will be replaced with the newest technology and will match the style that are commonly used at DSRSD. The actuators cost approximately $9,000 each and will be installed by DSRSD staff. The total cost includes staff time for the installation.	
PG&E Reliability and Solar/Battery storage. This is a new project and no cost has yet been identified.	Weir	TBD	Recent PG&E outages during the summer have resulted in concern that the same could occur during wet weather and result in unpermitted discharges. The Board also asked about solar/battery systems to offset demand charges and reduce energy costs. DTN Engineers has prepared a draft report recommending a 1.5MW standby generator that would run at least two large pumps for at least 24 hours during a PG&E outage. Not certain that is adequate. Will use unused funds from agreement with Woodard & Curran to do additional flow modeling (recall EBDA "pick a flow") to assist in determining standby power needs. Not yet ready to make recommendations to the Board.	TBD
Other Items				
Wet Weather Issues	Sevilla	10/31/2020	Rainfall in October and November 2022 has not created any problems.	
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	6/30/2023	Gate is in good shape but won't fully close. No date set, perhaps this winter. May be coordinated with replacement of the valve actuators.	
EBDA Enterococcus Issue	Sevilla		No issues at this time.	
YTD O&M Expenses compared to budget	Carson, Weir	Ongoing	No issues at this time.	

End of Report

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

ITEM NO. 12 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 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. On October 31, 2022 Psomas sent a letter recommending that LAVWMA file a Notice of Completion (NOC) with the County of Alameda. The NOC is scheduled to be filed at the County's Dublin satellite office on November 14, 2022. Once the NOC is filed the retention can be paid to Royal Electric and the project will be complete.

On a separate but related matter, given that electricity is LAVWMA's largest operational expense, the Board requested that staff revisit the 2014 report on the viability of adding solar panels to help address LAVWMA's electricity demands. To facilitate this effort, the agreement with DTN Engineers has been amended to update that report as well as look at the possibility of including a battery storage system. In addition, there have been periodic PG&E outages at the pump station. Unfortunately, during the outages, both Feeders have gone down leaving no power for the pumps. There is a small standby generator that provides power to the building. Please refer to Agenda Item No. 13 for a status report on these items.

Purchase of Three Vertical Turbine Pumps
After bidding issues were resolved, Trillium was selected to provide the three new vertical turbine pumps at a total cost of $357,057. There were some delays in getting the submittals, but manufacturing of the pumps is underway. The three pumps were originally scheduled to be delivered by December 16, 2022. A notice from Trillium on November 4, 2022 stated the following: *"Unfortunately, your pumps are now scheduled to ship on 2/28/2023. The main reason for the push out is because of the capacity of our test lab. I will investigate to see if there are any other potential issues holding up your pumps. My sincere apologies for this delay."*

The delay is frustrating, but other agencies are having the same problems with delivery of materials and getting projects completed as originally planned. The last item to be scheduled is identifying dates for witness attendance at the pump testing. DSRSD staff and the pump

engineering consultant, Tom Hendrey, will attend. The General Manager may also attend. The pump testing will take place at Trillium's facility in Fresno, California.

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. The estimated construction cost has increased to $730,000 as was reported at previous meetings. 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 submitted a request to increase their cost by $44,800 above the original cost of $185,000, or by 24.2%. This was approved by the Board at the February 16, 2022 meeting.

HydroScience delivered the 75% plans and specs on May 10, 2022. Comments on the 75% plans and specs have been submitted to HydroScience. A meeting with DSRSD staff was held on November 7, 2022 to address remaining issues to assist in receiving final versions of the plans and specs. As noted above for the pump delivery, the lead time for the 30 inch valve that will be replaced as part of this project is anticipated to be up to one year, delaying the originally planned completion date for the project.

It is anticipated that the final bid packet will be completed sometime in December. Due to the holidays, the packet will not be published until after January 1, 2023 in order to maximize the number of contractor responses.

Recommendation

There are no recommendations at this time.

Attachments

None

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

ITEM NO. 13 PROJECT STATUS REPORTS – PG&E ELECTRICAL RELIABILITY AND PHOTO VOLTAIC / BATTERY STORAGE OPTIONS

Action Requested
None at this time.

Summary

PG&E Electrical Reliability
Please refer to the attached report from DTN Engineers, Export Pump Station Electrical Service Reliability Report, **Item No. 13.1**. This report is in direct response to recent outages from PG&E that have been up to 16 hours in length. During dry weather, PG&E outages are not an issue as there is substantial storage so there is no need to use electricity to run the pumps that transmit the treated wastewater to the East Bay Dischargers Authority system. During wet weather, the inability to pump when storage capacity is reached could be a problem. DTN worked with PG&E to get more information on the cause of the outages and to explore options for revising the system such that if one Feeder goes down the system automatically switches to the other Feeder. DTN's investigation has determined that the two feeders are now inadequate to provide the necessary backup to power all the pumps at the station.

The report recommends installing a 1.5 MW Standby Generator to provide power for two large pumps during the time PG&E power may be offline during wet weather. The cost for the generator would be at least $3,000,000 and would take two years to complete. This issue has been discussed with the Staff Advisory Group (SAG). There are still many unknowns regarding this project and LAVWMA's ability to meet all permit requirements. Some of the questions that need to be addressed before making a recommendation to the Board include the following:

1. Is it possible to manage extreme wet weather flows with existing storage at the pump station and treatment plants?
2. If the storage option is infeasible, what would be the maximum flow that could not be stored? This will determine the needed size of a standby generator assuming that is the best option.
3. Can temporary standby generators be used instead of needing a $3M capital project?
4. Will PG&E outages occur in the wintertime?
5. Is it possible to get the Regional Board to allow discharges during extreme wet weather during PG&E outages? This seems unlikely, but it is worth inquiring.
6. Are there other possible solutions?

LAVWMA previously used Woodard and Curran (W&C) to assist with flow modeling during the EBDA negotiations. There was approximately $30,000 left in their purchase order that could be used to do flow modeling as related to storage and PG&E outages. A new purchase order is

being issued for this task. W&C's task will be to determine the frequency of not being able to manage flows with existing storage during ten year storms and up to 24 hours of not having PG&E power. Additional information and a possible recommendation will be presented to the Board at the February 23, 2023 meeting. All possible options that have been identified will be presented to the Board at that time with an intent of moving forward with the best option or combination of options. All solutions other than managing flows through existing storage will require capital funding such that a budget modification to add a new capital project will also be presented to the board for consideration.

Photo Voltaic / Battery Storage Options

DTN Engineers is also working on this task. They have been working with Total Energies to develop a preliminary design for a photo voltaic system (solar panels) at the pump station. The original concept of installing solar panels above the storage basins is impractical due to the construction cost. Installing parking lot type panel arrays (picture the parking lot at Amador Valley High School) over roads and other paved areas is much more cost effective. Total Energies has developed a preliminary design of a system that will provide 1.74MW producing 2.8M kWh/year. In Fiscal Year ending June 30, 2022 the pump station consumed 7,333,592 kWh. The preliminary system would offset 38% of last year's kWh, which is equal to $540,000. Please refer to **Item No. 13.2** for the preliminary design criteria and layout.

Of course the actual savings would depend on the agreements with PG&E and the private entity that receives the tax benefit through a Power Purchase Agreement with LAVWMA. In addition, the actual space available at the pump station site still needs to be confirmed with DSRSD. A formal proposal from Total Energies will be provided at a later date. Additional information and a possible recommendation will be presented at the February 23, 2023 meeting. Information provided at that time will likely include a final proposed layout, impacts on DSRSD staff, costs and payback period, assessment of battery storage, process for a power purchase agreement, and a request to issue a Request for Proposal to enter into a Power Purchase Agreement with a private company. Once proposals are received and evaluated and costs are fully understood, a budget modification to add a photo voltaic capital project will also need Board approval. That may take several more months.

Although the solar panel project may be pursued, it should be noted that it would not solve the problem with PG&E reliability described above. During extreme wet weather, there will be little power generated by the panels.

Recommendation

There are no recommendations at this time.

Attachments

1. **Item No. 13.1**, Export Pump Station Electrical Service Reliability Report.
2. **Item No. 13.2**, Email from Kevin Johnston, Solar Panel Draft Report.

DTN ENGINEERS, INC.
Oakland - San Francisco - Orange County CA

LAVWMA WATER Resource Recovery

Livermore-Amador Valley Water Management Agency

Export Pump Station
Electrical Service Reliability Report

November 11, 2022

Prepared by

DTN Engineers, Inc.

REGISTERED PROFESSIONAL ENGINEER
DIEP TAN NGUYEN
No. TE-[illegible]
Exp. 6/30/23
ELECTRICAL
STATE OF CALIFORNIA

Signed 11-11-2022

1. 1 Executive Summary

Recent PG&E power outages, some of which are as long as 16 hours, create concerns regarding possible illegal discharge of LAVWMA flow into the canal that leads to Alamo Canal during a wet weather event. This report concludes that the intended dual services provided by PG&E are no longer as reliable as they were in 2015 when the services were last evaluated due to possible shut down by PG&E Public Safety Power Shutoff (PSPS) [1]. The outages are even worse since the implementation of PG&E's new Enhanced Powerline Safety Settings (EPSS) [2] starting in 2022.

Detailed descriptions of PSPS and EPSS are included in the Appendices of this report. With PSPS, PG&E is required to provide advanced notices to affected parties. EPSS is a new program that includes settings on PG&E's systems that sense problems and will shut down a system within one tenth of a second. There is no notice to affected parties. In addition, during a EPSS event, PG&E is required to inspect the location causing the outage before they restore power. The location could be remote and take hours for the inspection to occur.

Although EPSS is primarily intended to prevent wildfires, PG&E representatives informed us that the settings will apply year round. Therefore during the winter it is conceivable that severe winter storms will cause EPSS events and inspection could take longer than in the summertime. For these reasons, this report is using a period of 24 hours as the time that LAVWMA may be without power and must plan accordingly to avoid unauthorized discharges.

This report also recommends that a standby power system be installed to keep the pump station operatng when PG&E power fails to avoid discharging LAVWMA effluent when all of the storage basins have been overfilled.

1. 2 Background

This LAVWMA export pump station is operated and maintained by DSRSD staff. The pump station is a critical facility having a maximum discharge capacity of 41.2 MGD. The treated wastewater is pumped from this pump station in Pleasanton over the Dublin Grade to San Leandro where it enters the East Bay Dischargers Authority (EBDA) forcemain. From there is goes through EBDA's dechlorination facility before discharge to San Francisco Bay.

When constructed in 2000, the pump station was provided with two 2,300V 3-phase services by PG&E with two separate 21KV circuits which originate from PG&E San Ramon Substation. These two 21KV circuits are interlocked such that only one circuit can feed the pump station at any one time. These two 21KV circuits are manually switchable by PG&E at an outdoor pad-mounted switchgear as shown in Photo 1.

[1] See Appendix A1
[2] See Appendix A2

Photo 1 – 21KV Pad-Mounted Switchgear

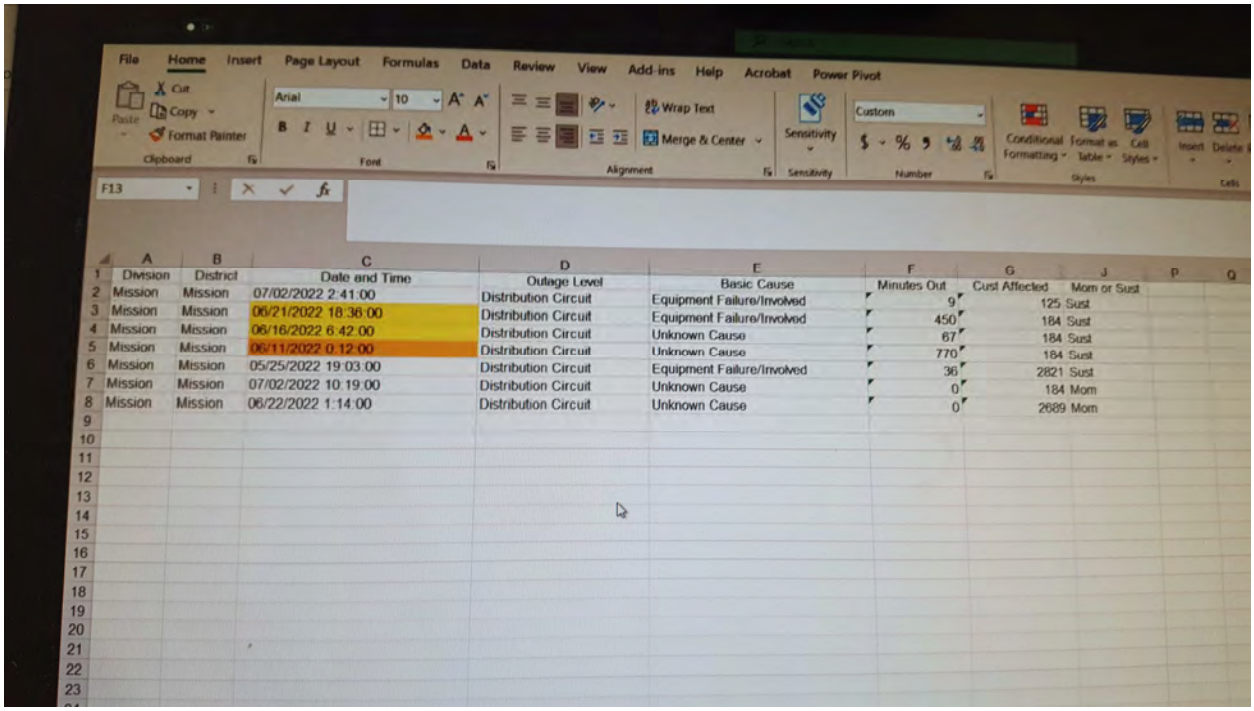
An evaluation made by DTN Engineers in 2015 confirmed that the electrical services were very reliable at that time because of the redundancy configuration at the PG&E San Ramon Substation, and that both circuits were full capacity [3] meaning each 21KV circuit could adequately supply power to the pump station which has six 500HP pumps and four 600HP pumps and 300KVA auxiliary loads.

Unfortunately starting from 2021, there have been recent power outages as recorded by DSRSD staff as well as PG&E. The followings are outages recorded by LAVWMA's SCADA system:

Outage Date	Time	Duration	Cause
7/02/22	10:19AM	3 min.	Unknown
7/02/22	5:26AM	8 min.	Unknown
6/21/22	6:31PM	7 hrs & 35 min.	Equipment failure
6/16/22	6:38AM	1 hr & 11 min.	Unknown
6/10/22	9:26PM	15 hrs & 37 min.	Unknown
5/25/22	7:01PM	38 min.	Unknown
7/13/21	8:07AM	1 min.	Unknown
5/14/21	6:04AM	1 hr & 6 min.	Equipment failure

The following Photo 2 shows a snapshot of the PG&E internal report displaying circuit outages with some discrepancies as compared to LAVWMA records.

[3] See Appendix A3



	A	B	C	D	E	F	G	J
1	Division	District	Date and Time	Outage Level	Basic Cause	Minutes Out	Cust Affected	Mom or Sust
2	Mission	Mission	07/02/2022 2:41:00	Distribution Circuit	Equipment Failure/Involved	9	125	Sust
3	Mission	Mission	06/21/2022 18:36:00	Distribution Circuit	Equipment Failure/Involved	450	184	Sust
4	Mission	Mission	06/16/2022 6:42:00	Distribution Circuit	Unknown Cause	67	184	Sust
5	Mission	Mission	06/11/2022 0:12:00	Distribution Circuit	Unknown Cause	770	184	Sust
6	Mission	Mission	05/25/2022 19:03:00	Distribution Circuit	Equipment Failure/Involved	36	2821	Sust
7	Mission	Mission	07/02/2022 10:19:00	Distribution Circuit	Unknown Cause	0	184	Mom
8	Mission	Mission	06/22/2022 1:14:00	Distribution Circuit	Unknown Cause	0	2689	Mom

Photo 2 – PG&E Internal Power Outage Report

1. 3 Regulatory Issues

LAVWMA pumps treated and disinfected secondary effluent from the DSRSD and Livermore treatment plants to the East Bay Dischargers Authority facilities in San Lorenzo. The discharge is governed by four permits issued by the San Francisco Regional Water Quality Control Board (Regional Board).

The first three permits are for normal operation and include the following:

- Order Number R2-2022-0023 issued to EBDA and its member agencies and LAVWMA
- Order Number R2-2022-0024 issued to DSRSD
- Order Number R2-2022-0025 issued to City of Livermore

These three permits all became effective September 1, 2022 and expire August 32, 2027. Permits are typically issued for a period of five years.

The fourth permit is LAVWMA's Wet Weather Permit, Order Number R2-2021-007 issued to LAVWMA, DSRSD, City of Livermore, and City of Pleasanton. The permit became effective July 1, 2021 and expires June 30, 2026. The key prohibitions to this permit include the following:

> **"3.2.** Discharge to San Lorenzo Creek is prohibited, except during peak wet weather flows after the Discharger fully utilizes the maximum allowed hydraulic capacity available in the East Bay Dischargers Authority (EBDA) pipeline in accordance with Provision 6.3.4.2 below and except during exercise of the discharge flap gate as described in Prohibition 3.5. Wet weather discharges to

San Lorenzo Creek shall not exceed 21.5 million gallons per day (MGD). Discharge flap gate exercises shall not exceed 140,000 gallons per discharge event. Compliance shall be evaluated at Monitoring Location M-002 as described in the Monitoring and Reporting Program (MRP).

3.3. Discharge to Alamo Canal is prohibited, except during peak wet weather flows after the Discharger fully utilizes its maximum export pumping capacity of 41.2 MGD to the EBDA pipeline (or to the EBDA pipeline and the San Lorenzo Creek outfall) in accordance with Provision 6.3.4.2 below and except during exercise of the outfall as described in Prohibition 3.5. Discharge exercises shall not exceed 140,000 gallons per discharge event. Compliance shall be evaluated at Monitoring Location M-003 as described in the MRP.**"**

In addition, the official Permit Compliance requires a Contingency Plan [4] which specifically calls for Emergency Standby Power to ensure the pump station remains in operations in the event of power outage.

If there is a PG&E power outage and there is no alternative power source, all pumping ceases immediately. During dry and even some manageable wet weather, storage basins at LAVWMA, DSRSD, and Livermore can be utilized to store water until PG&E power is restored. This is exactly what has happened recently during the outages listed in this report.

If there is a PG&E outage during wet weather, it is possible that storage basins at the pump station could be fully utilized. If high flows continued, flow would be diverted to the channel leading to Alamo Canal. Per Section 3.3, above, with no flow going to EBDA as described in Section 3.2, all flow to Alamo Canal would be in violation of the permit. The Regional Board could fine LAVWMA up to $10 per gallon of illegal discharge. That is highly unlikely, but a discharge of several million gallons would likely lead to a fine of several hundred thousand dollars. In addition, the Regional Board could issue a Cease and Desist Order, requiring LAVWMA to install a backup power supply per a specified schedule.

Other legal action could be brought by Alameda County Water District (ACWD) since Alamo Canal joins Alameda Creek, which it the main water supply for ACWD. Third party citizen suits are also a possibility.

During a ten year or greater storm event, flows from the treatment plants will easily exceed the 41.2 MGD capacity of the pump station. Flow will immediately start to fill up the storage basins at the three sites. If there was a sixteen hour PG&E outage that could easily be 30-40 MG of flow with no place to go except the storage basins (total capacity of 54 MG) or Alamo Canal. A twenty-four hour outage would be even more problematic. Available capacity in the storage basins is very variable and depends on severity and length of any storm event. See Photo 3 for an aerial view of the pump station with storage basins.

[4] See Appendix A4

Photo 3 – Aerial View of Pump Station

Not having reliable backup power will also change the way DSRSD operates the pump station. During wet weather season, it is highly likely that every effort will be made to keep all storage basins as empty as possible. Doing this will lead to required pumping during PG&E peak periods. Usage and demand charges during peak periods will increase dramatically and could result in increased electrical costs in the mid six figures.

1. 4 Electrical Service Reliability

In general, for wastewater facilities, EPA and the Regional Board require that these facilities shall have two sources of power such that in case of failure of one source, the other source will be utilized to maintain the continued operations of the facilities. The pump station's electrical configuration with dual services meets this requirement assuming both services can individually supply power to run the pump station as indicated in 2015 report. Unfortunately, in a recent meeting with PG&E, the following facts were disclosed:

1. Most of the outages were a result of the PG&E Enhanced Power Safety Settings (EPSS) although the records on paper or in PG&E internal reports show them as "unknown". Most of these outages were noted to be in summer time considered as

wildfire season. LAVWMA does not yet have any experience with EPSS during winter.

2. The two 21KV circuits serving the LAVWMA Export Pump Station are no longer redundant as reported in 2015 report: Circuit 2103 is a full capacity, primary circuit and circuit 2118 is no longer a backup circuit because it has been fully loaded with loads from many other customers. (Load growth in the area will be further increased by development of Costco facilities and hotels located near the Export Pump Station.)

   The above fact explains the reason why PG&E has not manually switched plant load circuit 2103 when it fails to circuit 2118 due to overloading potential. (There is a procedure for DSRSD staff to follow when they need to request PG&E to come and to switch the 21KV circuits in case of emergency.)

3. PG&E does not guarantee 100% power reliability because of PSPS and most recently EPSS despite the fact that California PUC does require utility power system availability to a certain degree.

1. 5 Service Reliability Improvements

To improve the service reliability especially to avoid sewer overflow during prolong normal power failure as stipulated in the Permit Compliance, there are three options [5] proposed in this report.

Option 1 - Isolate the two incoming 21KV circuits and increase capacity of transformers and circuits to full capacity for true redundant configuration.

Option 2 - Install an Automatic Transfer Switch [6] so that the two 21KV circuits can be switched automatically if one circuit fails and new transformers with increased capacity.

Option 3 - Install onsite standby generator as backup power (PG&E initially indicated that Option 1 and Option 2 are doable, and PG&E will provide costs to LAVWMA for consideration). In addition, install a tap box to accommodate quicker connection to a mobile rental generator; and open a contract with generator rental companies for priority generator rentals.

Based on past experience dealing with PG&E for more than 46 years, the author of this report believes the costs for Option 1 or Option 2 will be astronomical and not affordable. There are also many other logistic difficulties such as plant's interruptions and delays for these two options. Accordingly, the best option to improve the service reliability is Option 3.

[5] See Appendix A5
[6] See Appendix A6

The following Table summarizes advantages and disadvantages of each option.

Option	Description	Advantages	Disadvantages	Estimate Construction Cost
1	Change configuration and make two services fully redundant	1. Assure continued operations if one 21KV circuit fails.	- Long delays - Very costly - PG&E has to rearrange its loads	- Not yet officially available from PG&E - Non-PG&E equivalent project would cost $1.5M
2	Add ATS for fully switching two circuits	1. Assure continued operations if one 21KV circuit fails.	- Long delays - Very costly - PG&E may not allow it because it has to rearrange its loads and will charge monthly fee for "standby power"	- Not yet officially available from PG&E - Non-PG&E equivalent project would cost $1.9M
3	Install standby generator [7]	1. Assure continued operations if one 21KV circuit fails. 2. Work to be done independent to PG&E services 3. Will provides backup power to run at least two large pumps during prolong power outage for up to 24 hrs until normal power is restored. 4. LAVWMA and DSRSD staff plan on flow and storage modeling to determine how much standby power will be needed for an outage of 24 hours.		$4M NOTES: - Estimates of purchase costs of the genset ranges from $1.1M to $1.3M obtained from CAT and Cummins. - Installation costs are estimated from $1.5M to $1.7M. - Lead time obtained from vendors varies from 52 weeks to 78 weeks from date of approved shop drawings. - Existing electrical system was designed in 2000 to easily accommodate electrical connection to new standby generator as shown on the single-line diagram. - Final design will include a quick connect provisions for a rental genset for quick deployment in case stationary genset fails.

[7] See Appendix A7

Conclusion

This report strongly recommends LAVWMA install a standby power system to keep the pump station operating when PG&E power fails. The cost of this installation is justified and worthwhile because the standby power system will support the pump station for the next 40 years during which normal power quality provided by PG&E is getting worse not only because of PSPS or EPSS but more and more Electrical Vehicles (EV) with chargers impacting power quality. It is worth mentioning that starting in 2035, diesel engines like combustion engine automobiles will not be allowed to be imported in California. It is not clear at this time if alternate backup power other than battery storage is available for facilities having large loads. (There is a separate task being done to address Photo Voltaic (Solar) power and battery storage.)

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APPENDIX

A1 – PG&E Public Safety Power Shutoff

A2 – PG&E Enhance Safety Power Shutoff

A3 –Year 2000 Project As-built Drawing

A4 - Service Reliability Improvement Options

A5 – 21KV Automatic Transfer Switch

A6 – Typical 1.5MW Standby Generator

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A1 – PG&E Public Safety Power Shutoff

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"power is off" notifications 24 hours a day. You may receive phone calls, SMS texts and email notifications between 9 p.m. and 8 a.m.

What: We notify you that power has been turned off to prevent wildfires

An outage timeline: what to expect

We share weather and equipment updates as soon as they are available. The timeline for a Public Safety Power Shutoff includes the following stages:

Severe Weather Forecasted

Severe weather forecasted

When: Up to a week before power is shut off

What: Our weather specialists forecast potential severe weather

PSPS Outage Watch Notifications

Public Safety Power Shutoff Watch notification (outages likely)

When: Up to two days before power is shut off

What: We notify you if your address may be affected by a shutoff

PSPS Outage Watch Notifications

Public Safety Power Shutoff Watch notification (outages likely)

When: Up to one day before power is shut off

What: We update you on the potential shutoff

PSPS Outage Warning Notification

Public Safety Power Shutoff Warning notifications (outages required)

When: One to four hours before power is shut off

NEW IN 2022 – PG&E is required by the California Public Utilities Commission to send "Public Safety Power Shutoff Warning" notifications 24 hours a day. You may receive phone calls, SMS texts and email notifications between 9 p.m. and 8 a.m.

What: We notify you if your address will be affected by a shutoff

Power Shutoff

Power is shut off

When: Once power has been shut off

NEW IN 2022 – PG&E is required by the California Public Utilities Commission to send "power is off" notifications 24 hours a day. You may receive phone calls, SMS texts and email notifications between 9 p.m. and 8 a.m.

What: We notify you that power has been turned off to prevent wildfires

When: Weather has improved and inspections and restoration activities have begun What: Our power crews inspect power lines to restore power to affected communities as quickly and safely as possible. W

Weather "all-clear" notification

When: After severe weather has passed

NEW IN 2022 – PG&E is required by the California Public Utilities Commission to send "all-clear" notifications 24 hours a day. You may receive phone calls, SMS texts and email notifications between 9 p.m. and 8 a.m.

What: We notify you that we are inspecting powerlines and provide restoration estimates

Estimated restoration notification

Estimated restoration notification

When: If we experience changes in our restoration estimates

What: We provide updates if there's a change to our estimated time of restoration

PSPS Power Restored

Power is restored

When: Within 24 hours after severe weather has passed

NEW in 2022 – PG&E is required by the California Public Utilities Commission to send "power is restored" notifications 24 hours a day. You may receive phone calls, SMS texts and email notifications between 9 p.m. and 8 a.m.

What: We notify you when power has been restored

More resources

- To find a more detailed account of what to expect in a shutoff, download Your Guide to Public Safety Power Shutoffs (PDF, 2.6 MB)PDF. Opens in new Window..
- To find tips on staying safe during a shutoff, download Prepare for a Power Outage (PDF, 904 KB)PDF. Opens in new Window..
- To find suggested emergency kit supplies, download the Emergency Checklist (PDF, 930 KB)PDF. Opens in new Window..
- To create a personalized emergency plan in the event of an evacuation, visit our emergency plan pageOpens in new Window..
- To report or view current outages, visit our outages map.
- To learn more about the Public Safety Power Shutoff Program, weather factors, alerts and ways to prepare, download the Public Safety Power Shutoff Fact Sheet (PDF, 432 KB)PDF. Opens in new Window..
- To help your tenants be prepared for shutoff, download the Master Meter Flyer (PDF, 597 KB)PDF. Opens in new Window..
- For customers with medical or independent living needs, download the Aging and Disability Emergency Preparedness Brochure (PDF, 241 KB)PDF. Opens in new Window..

A2 – PG&E Enhance Safety Power Shutoff

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Enhanced Powerline Safety Settings
Alameda County Map

To help prevent wildfires during an ongoing drought, PG&E is continuing to evolve our safety efforts to protect our customers and communities. This includes adjusting the sensitivity on some equipment to automatically turn off power within one-tenth of a second if the system detects a problem. We call this Enhanced Powerline Safety Settings (EPSS). This year, we are expanding these safety settings to all powerlines in high fire-risk areas (HFRAs) and some lines that are adjacent to HFRAs. For more information, please visit **pge.com/epss**.

The below map shows the approximate areas in your community powered by EPSS-capable circuits, which will be enabled during times of heightened wildfire risk.

LAST YEAR, WE SAW AN

80% **reduction in CPUC-reportable ignitions** on powerlines with these safety settings enabled*

*Reduction in CPUC-reportable ignitions in High Fire-Threat Districts (HFTDs) compared to the prior 3-year average as of 12/31/21.

Note: This map is for illustrative purposes only. Impacted circuits are subject to change due to weather and wildfire risk, among other constraints. Data is as of 3/23/2022.

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A3 – Year 2000 Project As-built Drawing

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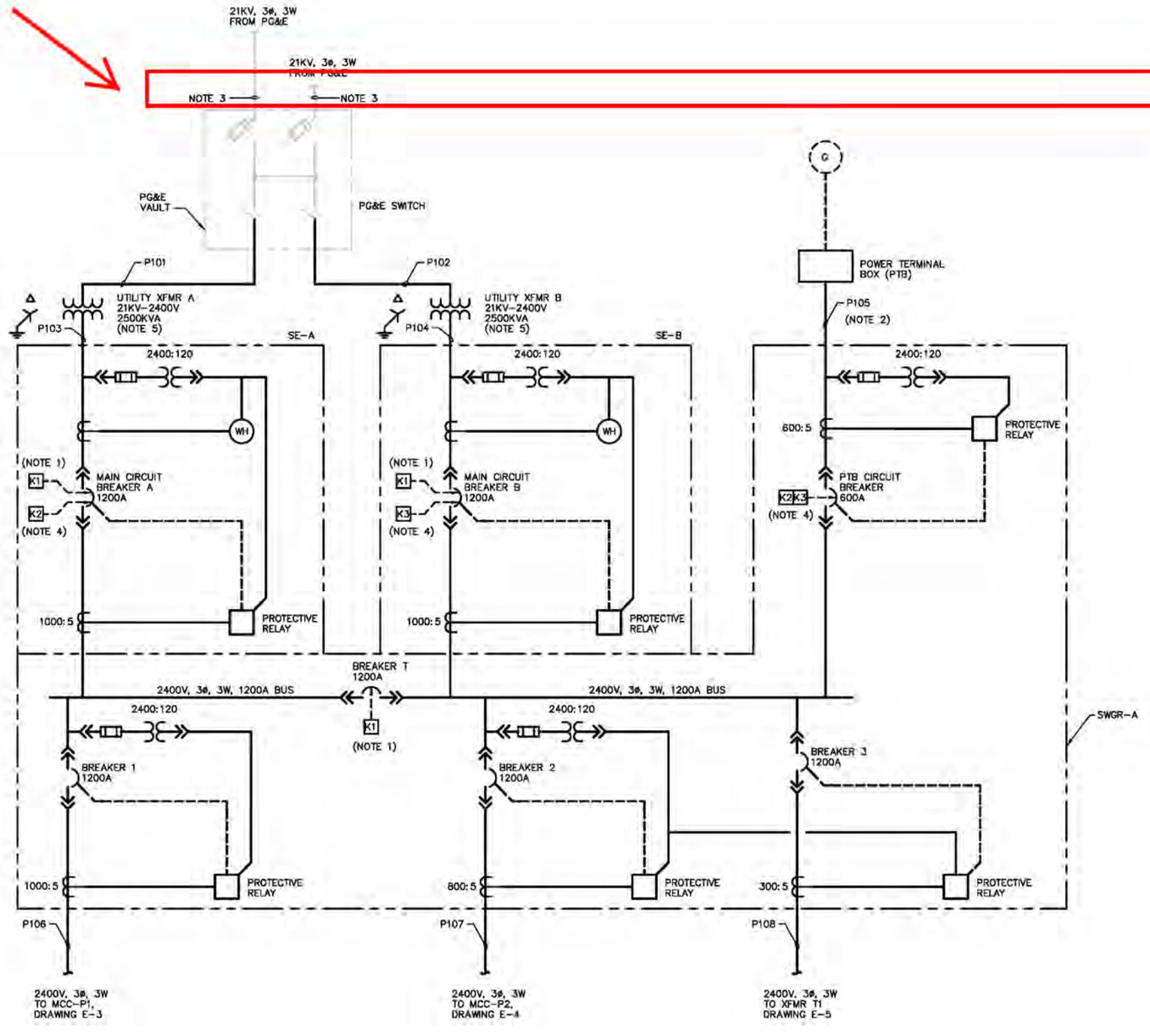
NOTES:

1. KEY INTERLOCKING, K1, SHALL BE PROVIDED SUCH THAT ONLY 2 OF THE NOTED CIRCUIT BREAKERS (A, B AND T) MAY BE CLOSED AT ANY TIME.
2. P105 WIRE AND CONDUIT IS SIZED TO ACCOMMODATE A 1750 KW GENERATOR SET. THIS IS THE LARGEST GENERATOR SET THAT CAN BE CONVENIENTLY HAULED OVER PUBLIC ROADS.
3. PG&E WILL SIZE EACH 21KV FEEDER FROM PG&E TO THE PG&E SWITCH TO CARRY 5MVA LOAD.
4. KEY INTERLOCKING, K2 AND K3, SHALL BE PROVIDED SUCH THAT THE MAIN CIRCUIT BREAKERS A AND B MUST BE OPEN BEFORE THE PTB CIRCUIT BREAKER MAY BE CLOSED.
5. AVAILABLE SHORT CIRCUIT CURRENT IS 10,000A AT 2400V.
6. WHEN OPERATING UNDER GENERATOR POWER, DO NOT START MORE EQUIPMENT THAN THE GENERATOR CAN SUPPORT.
7. ITEMS SHOWN BOLD ARE NEW AND TO BE INSTALLED UNDER THIS CONTRACT.



RECORD DRAWING
MAY 10, 2004

THIS DRAWING REDUCED TO HALF SIZE

ge-logo.tif
Electrical and Control System Engineering, Inc.
P.O. BOX 991779, Redding, CA. 96099
(530)244-3056

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

SUBMITTED:	PROJECT MANAGER	DATE:	
APPROVED:	GSDA	DATE:	11/13/00
APPROVED:	LAVWMA	DATE:	11/13/00

JOB NO 6001.99
DRAWN RCO
DESIGNED MSW
CHECKED DCM
CHECKED

G.S. DODSON & ASSOCIATES
CONSULTING ENGINEERS

REGISTERED PROFESSIONAL ENGINEER — GARY S. DODSON — NO. 16232 — EXP. 6/30/01 — CIVIL — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — MARK S. MADDEN — NO. E13748 — EXP. 6/30/03 — ELECTRICAL — STATE OF CALIFORNIA

REVISIONS

ZONE	REV.	DESCRIPTION	BY	DATE	APP.
	1	AS BUILT	GBT	2/05/04	
		CONFORMED DRAWINGS		3/01	

LAVWMA LIVERMORE–AMADOR VALLEY WATER MANAGEMENT AGENCY

EXPORT PIPELINE FACILITIES PROJECT
EXPORT PUMP STATION
2000–01

ELECTRICAL

ONE–LINE DIAGRAM – 1

SCALE: NO SCALE
DRAWING NUMBER: E–2
SHEET NUMBER: 32 of 117

05/05/04 GT 9912–7–H

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A4 – Service Reliability Improvement Options

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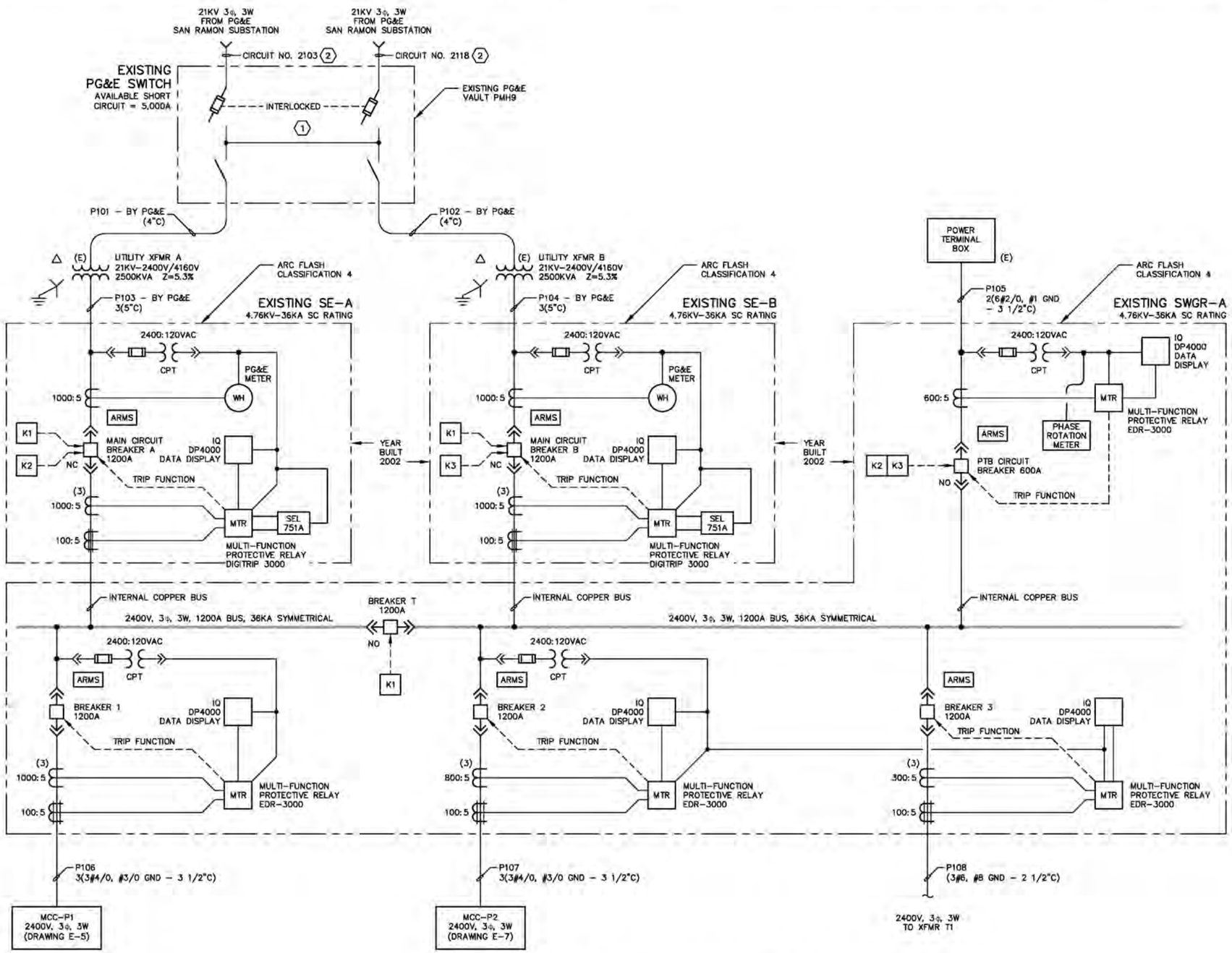


NOTES:

(1) WHEN THE SWITCH OF CIRCUIT 2103 IS CLOSED, BOTH SERVICES TO THE PUMP STATION ARE ENERGIZED SIMULTANEOUSLY. WHEN CIRCUIT 2103 FAILS, BOTH SERVICES TO THE PUMP STATION ARE DE–ENERGIZED.

SIMILARLY, WHEN THE SWITCH OF CIRCUIT 2118 IS CLOSED, BOTH SERVICES TO THE PUMP STATION ARE ENERGIZED SIMULTANEOUSLY. WHEN CIRCUIT 2118 FAILS, BOTH SERVICES TO THE PUMP STATION ARE DE–ENERGIZED.

(2) RECORD OF YEAR 2000 PUMP STATION IMPROVEMENTS PROJECT INDICATES THAT EACH OF THESE TWO CIRCUITS HAS 5000KVA CAPACITY WHICH IS THE ENTIRE STATION'S LOAD.

AS OF TODAY (2022) THE ABOVE IS NO LONGER TRUE:

- CIRCUIT 2103 IS FULL (5000KVA) CAPACITY LINE.
- CIRCUIT 2118 IS FULLY LOADED WITH OTHER CUSTOMERS' LOADS.

(A) PUMP STATION MAIN SINGLE–LINE DIAGRAM

SCALE: NTS

REVISIONS					
ZONE	REV.	DESCRIPTION	BY	DATE	APP.

2" ON FULL SCALE (IF NOT 2"–SCALE ACCORDINGLY)

PROJ. NO.
DRAWN LD
DESIGNED TP
CHECKED DTN

ENGINEERS, INC.
Oakland, San Francisco, Orange County, CA

SUBMITTED: DTN DATE: 9/25/20
APPROVED: DATE:
APPROVED: DATE:

LAVWMA LIVERMORE–AMADOR VALLEY WATER MANAGEMENT AGENCY

EXPORT PUMP STATION
ELECTRIC SERVICE RELIABILITY TASK

ELECTRICAL

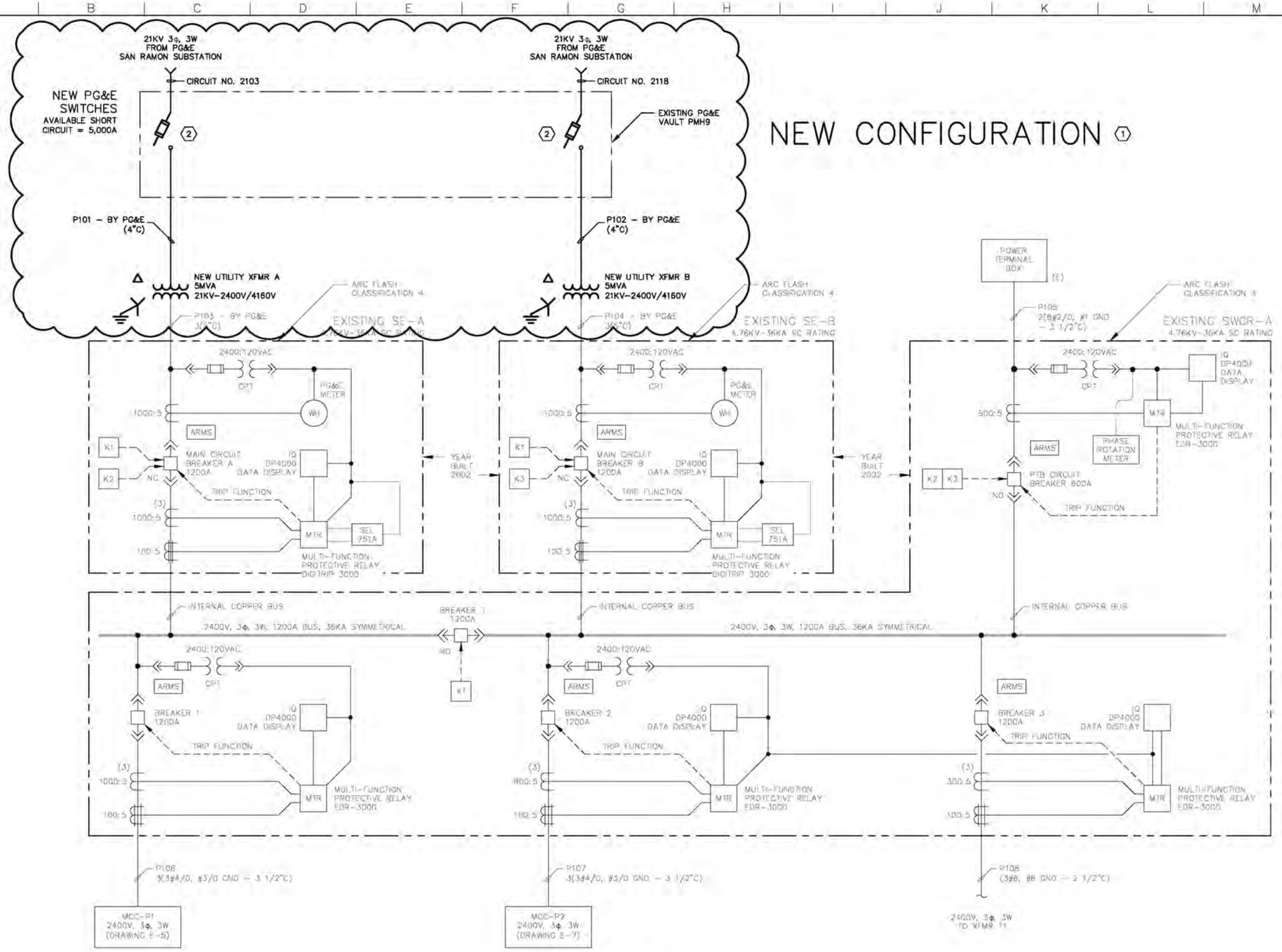
EXISTING MAIN SINGLE–LINE DIAGRAM

SCALE: NONE
DRAWING NUMBER: X–1
SHEET NUMBER: 1 OF 4

NOTES:

1. THIS CONFIGURATION IS FEASIBLE IF AND ONLY IF CIRCUIT 2118 IS A FULL CAPACITY LINE.
2. EACH NEW SWITCH WILL BE LOCATED ON ITS OWN CONCRETE PAD.

NEW CONFIGURATION ①



A — PUMP STATION MAIN SINGLE–LINE DIAGRAM

SCALE: NTS

REVISIONS					
ZONE	REV.	DESCRIPTION	BY	DATE	APP.

2" ON FULL SCALE (IF NOT 2"–SCALE ACCORDINGLY)

PROJ. NO.
DRAWN LD
DESIGNED TP
CHECKED DTN

DTN ENGINEERS, INC.
Oakland, San Francisco, Orange County, CA

SUBMITTED: DTN DATE: 9/25/20
APPROVED: DATE:
APPROVED: DATE:

LAVWMA LIVERMORE–AMADOR VALLEY WATER MANAGEMENT AGENCY

EXPORT PUMP STATION
ELECTRIC SERVICE RELIABILITY TASK

ELECTRICAL

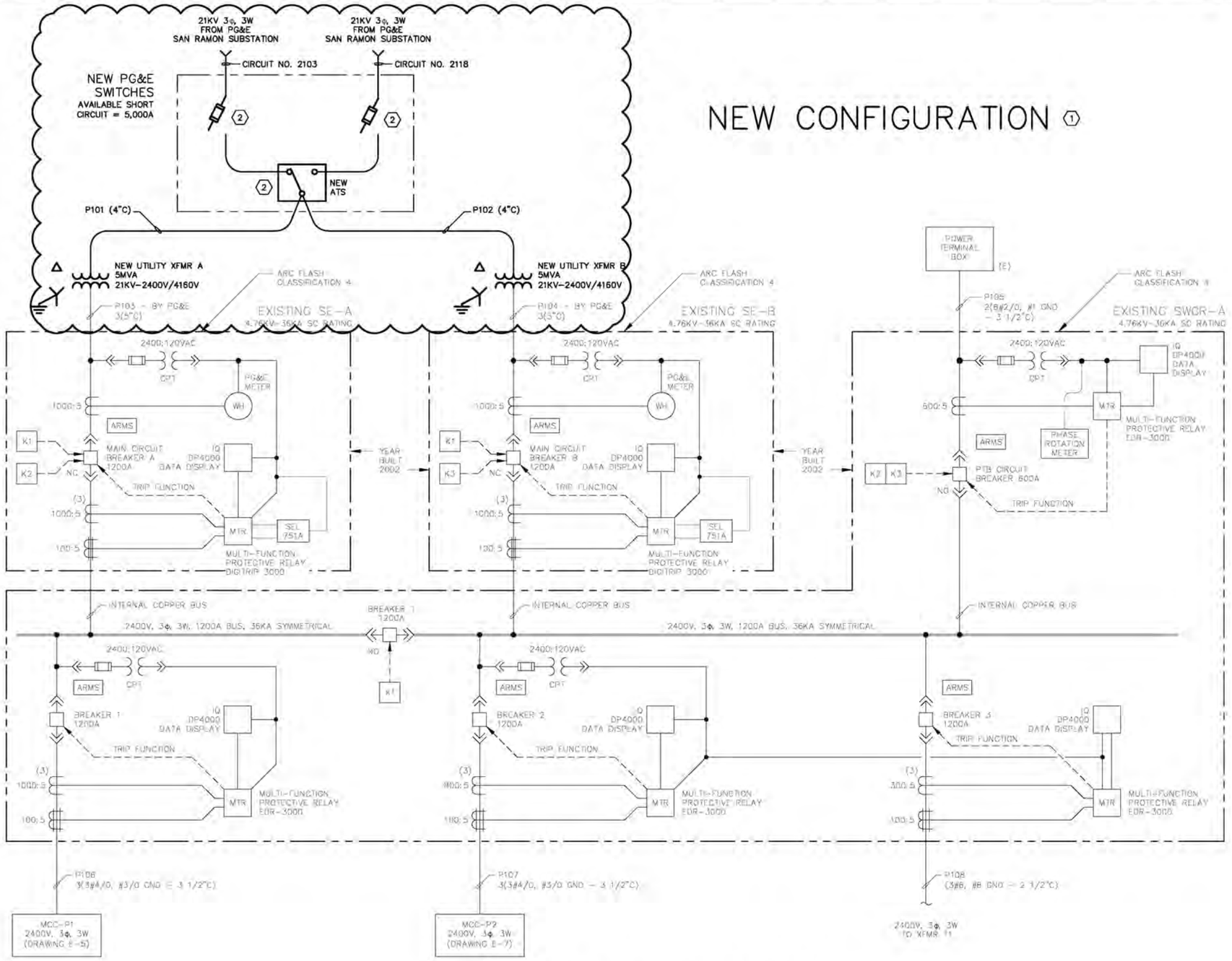
MAIN SINGLE–LINE DIAGRAM MODIFICATIONS OPTION 1

SCALE: NONE
DRAWING NUMBER: X–2
SHEET NUMBER: 2 OF 4

NOTES:

1. THIS CONFIGURATION IS FEASIBLE IF AND ONLY IF CIRCUIT 2118 IS A FULL CAPACITY LINE. PG&E MAY NOT ALLOW IT BECAUSE CIRCUIT 2118 IS ALSO FULLY LOADED WITH OTHERS.
2. EACH EQUIPMENT WILL BE LOCATED ON ITS OWN CONCRETE PAD.

NEW CONFIGURATION ①



A — PUMP STATION MAIN SINGLE-LINE DIAGRAM

SCALE: NTS

REVISIONS					
ZONE	REV.	DESCRIPTION	BY	DATE	APP.

2" ON FULL SCALE (IF NOT 2"-SCALE ACCORDINGLY)

PROJ. NO.
DRAWN LD
DESIGNED TP
CHECKED DTN

DTN ENGINEERS, INC.
Oakland, San Francisco, Orange County, CA

SUBMITTED: DTN DATE: 9/25/20
APPROVED: DATE:
APPROVED: DATE:

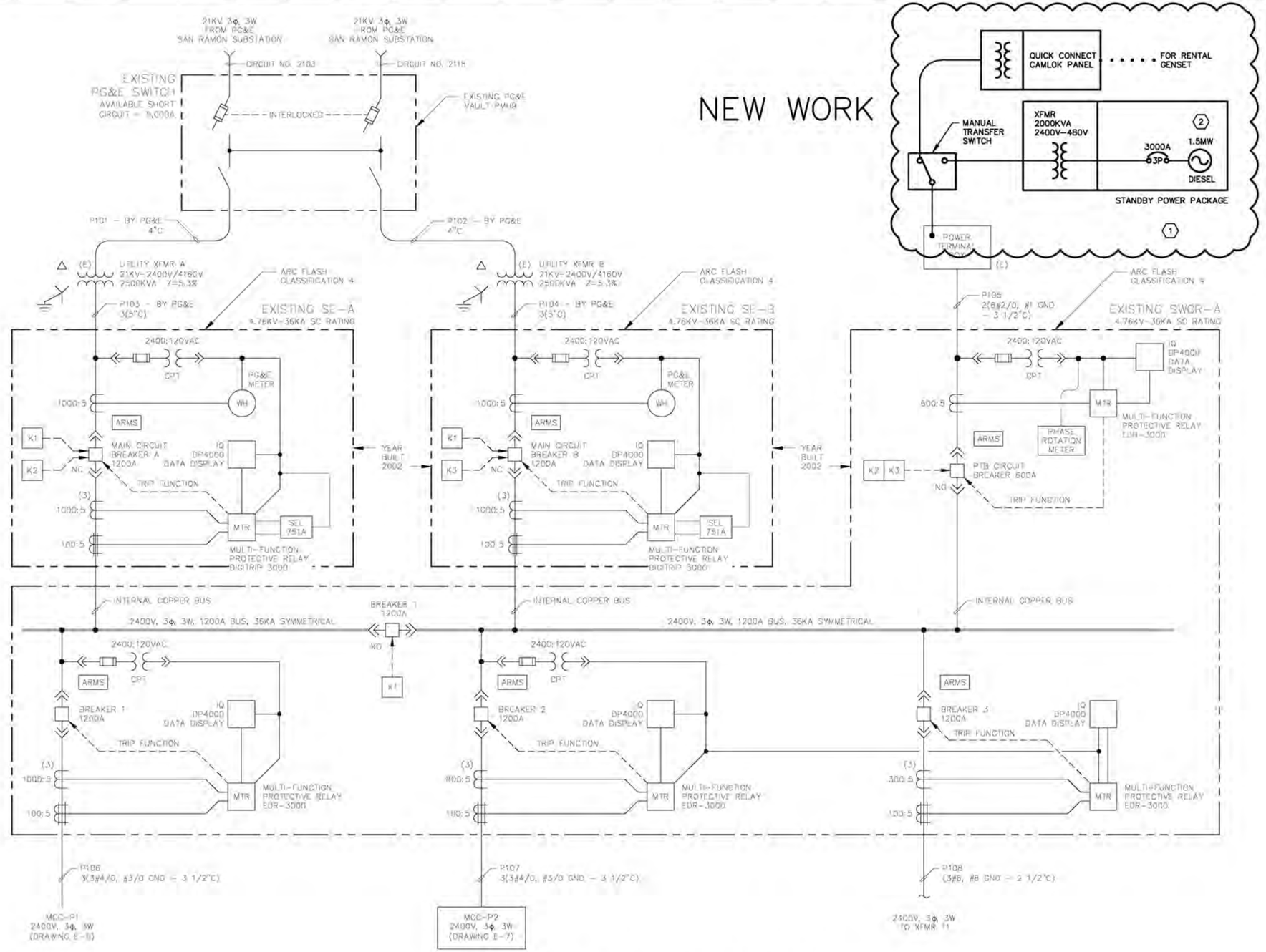
LAVWMA LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

EXPORT PUMP STATION
ELECTRIC SERVICE RELIABILITY TASK

ELECTRICAL

MAIN SINGLE-LINE DIAGRAM MODIFICATIONS OPTION 2

SCALE: NONE
DRAWING NUMBER: X-3
SHEET NUMBER: 3 OF 4



NOTES:

1. TO SAVE SPACE AND TO REDUCE ELECTRICAL WINDING LOSSES, 2.4KV GENERATOR IS RECOMMENDED, AND THUS NO STEP-UP TRANSFORMER IS REQUIRED. THIS ONE-LINE SHOWS 480V GENSET WITH STEP-UP TRANSFORMER OPTION.

   THE 2.4KV GENERATOR SHALL BE TIER 4 CERTIFIED WITH 24HR SUB-BASE FUEL TANK WITH LEAK DETECTION, AND WEATHER PROOF, NOISE-ATTENUATED ENCLOSURE.

   THE GEN'S CONTROL PANEL WILL BE DIGITALLY COMMUNICATED WITH EXISTING PLANT'S SCADA SYSTEM FOR REMOTE MONITORING ALARMS AND POWER SYSTEM PARAMETERS.

2. THIS 1.5MW GENSET IS CAPABLE OF RUNNING A MAXIMUM OF TWO 600HP PUMPS AND AUXILIARY LOADS OR A MAXIMUM OF TWO 500HP PUMPS AND AUXILIARY LOADS.

   DURING EMERGENCY POWER MODE, PUMPS SHALL BE STARTED ONE AT A TIME WITH A TIME DELAY OF MINIMUM 5 MINUTES BETWEEN STARTS.

A — PUMP STATION MAIN SINGLE-LINE DIAGRAM

SCALE: NTS

REVISIONS					
ZONE	REV.	DESCRIPTION	BY	DATE	APP.

2" ON FULL SCALE (IF NOT 2"-SCALE ACCORDINGLY)

PROJ. NO.
DRAWN LD
DESIGNED TP
CHECKED DTN

DTN ENGINEERS, INC.
Oakland, San Francisco, Orange County, CA

SUBMITTED: DTN DATE: 9/25/20
APPROVED: DATE:
APPROVED: DATE:

LAVWMA LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

EXPORT PUMP STATION
ELECTRIC SERVICE RELIABILITY TASK

ELECTRICAL

MAIN SINGLE-LINE DIAGRAM MODIFICATIONS OPTION 3

SCALE: NONE
DRAWING NUMBER: X-4
SHEET NUMBER: 4 OF 4

A5 – 21KV Automatic Transfer Switch

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PST pad-mounted switchgear with iST control

General

Eaton's Cooper Power Systems PST (Pad-mounted Source Transfer switchgear package) is a self contained load transfer device, which provides both automatic load transfer and feeder fault and overcurrent protection, in a single pad-mounted switchgear unit.

The PST switchgear represents the union of several time-proven products. The CI vacuum fault interrupter performs three-phase switching and three-phase fault interruption in the PST Model-6 switchgear. The iST control detects loss of source health and automatically transfers the load between the preferred and alternate sources as well as provides fault detection. The microprocessor controlled VFI interruption on the PST Model-9 switchgear allows for independent fault interruption for separate loads.

Features

- Low profile, self-contained, self-powered deadfront design
- Vacuum interruption
- Three-phase switching and fault and overcurrent protection
- Automatic or manual operation
- SCADA operable
- Communication protocols, ethernet, fiber, etc.
- Programmable "No-blink" parallel restoration through sync check or non-parallel restoration
- Fault Block
- Fast Transfer–6 cycles or less
- Fully integrated controls
- Metering
- Event recording for post event diagnostics

Cooper Power Systems by EATON

Automatic source transfer

All electrical distribution systems are subject to service interruptions and outages; however, there are many critical loads which cannot tolerate prolonged service interruptions. For such applications, a load-transfer scheme is used to minimize outage times. In a load transfer scheme, power is normally supplied from a preferred source and is automatically switched to an alternate utility or backup generation, if preferred source health is degraded for any reason. Upon restoration of preferred source health the load can automatically be switched back, in either a parallel-return mode (preferred-source switch closes before alternate source switch opens) or a non-parallel return mode (alternate-source switch opens before preferred-source switch closes). The parallel-return transfer mode eliminates an outage when switching back to the preferred source; however, the sources must be in synch to avoid excessive current flows between the two sources.

Product description

The Pad-mounted Source Transfer (PST) package provides protection against loss of source health as well as overcurrent and fault protection for critical loads. It features deadfront source and tap cable compartments, and a sealed tank, which houses the switching and fault interrupting components.

Source compartment

The source compartment houses the preferred and alternate source cable connections, the controls, and handles for manual operation of the source switches.

Tank

The PST switchgear tank contains: six potential transformers, which provide input to the iST control system to monitor the source health; current transformers, which provide input to the iST control system, to sense overload and fault conditions; two three-phase, Type CI interrupters, which perform the three-phase switching and PST Model-6 fault interruption; and, insulating oil, which serves as the dielectric medium.

Tap compartment

The tap compartment houses the tap cables and connections, as well as the manual operation handles for the two VFI fault interrupters on the PST Model-9 switchgear.

Optional configuration

The PST switchgear is designed in the industry-standard Model-6 configuration however, occasionally two critical loads must be served, each independently, from the same source. To accommodate this need, the PST can optionally be designed in a Model-9 configuration. In the Model-9 configuration the control will be provided as an iST-921 control in concert with an iST-901 control. Each control operates a separate three-phase interrupting VFI with the iST-921 control providing the source transfer logic. This arrangement of two separate controls, operating VFI interrupters, provides independent overcurrent and fault protection for the critical loads serviced by each tap.

CI technology

Switching and fault interruption are both accomplished with Eaton's Cooper Power Systems motor-charged, Type CI interrupters. The CI interrupters feature our long-life, maintenance free, vacuum interrupters, which assure many years of trouble free performance

When energized, a motor winds the CI interrupter mechanism to charge the closing and opening springs; this provides quick-close and quick-open operation of the vacuum interrupters. Each CI interrupter can also be operated manually, should control power be lost. A hotstick-operable lever can be operated to manually close or trip the CI interrupter, while a hotstick-operable push-pull handle can be operated for manual charging of the springs. Viewing ports provide access to the contact position indicators and operation counters for each interrupter.

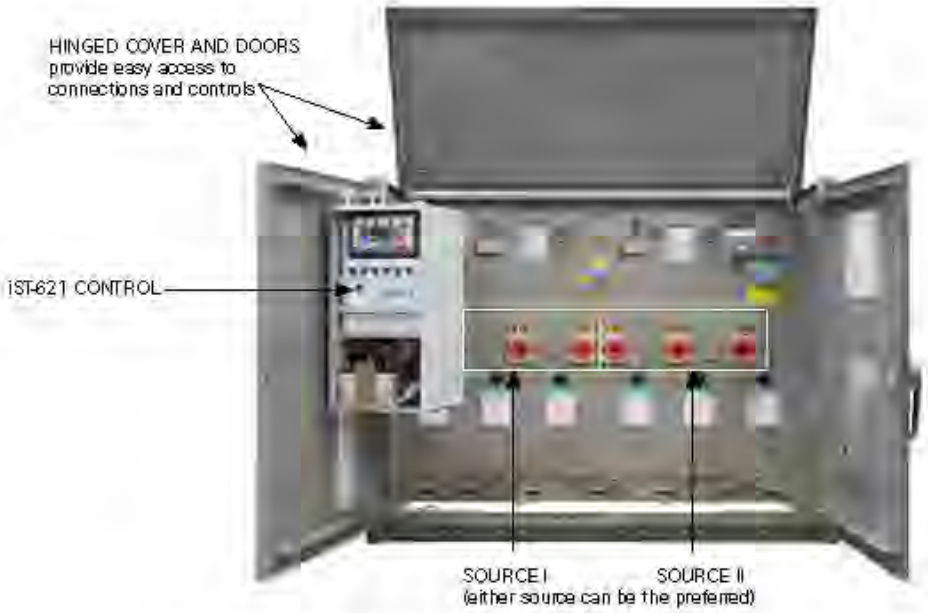


Figure 1. Front view of Eaton's Cooper Power Systems PST Model-6 switchgear (source cabinet).

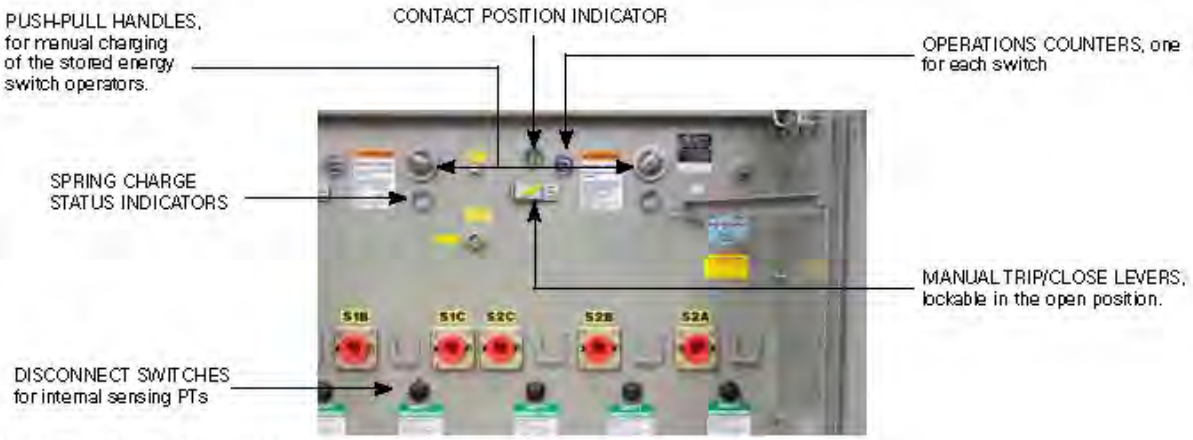


Figure 2. Close-up view of the source front plate.

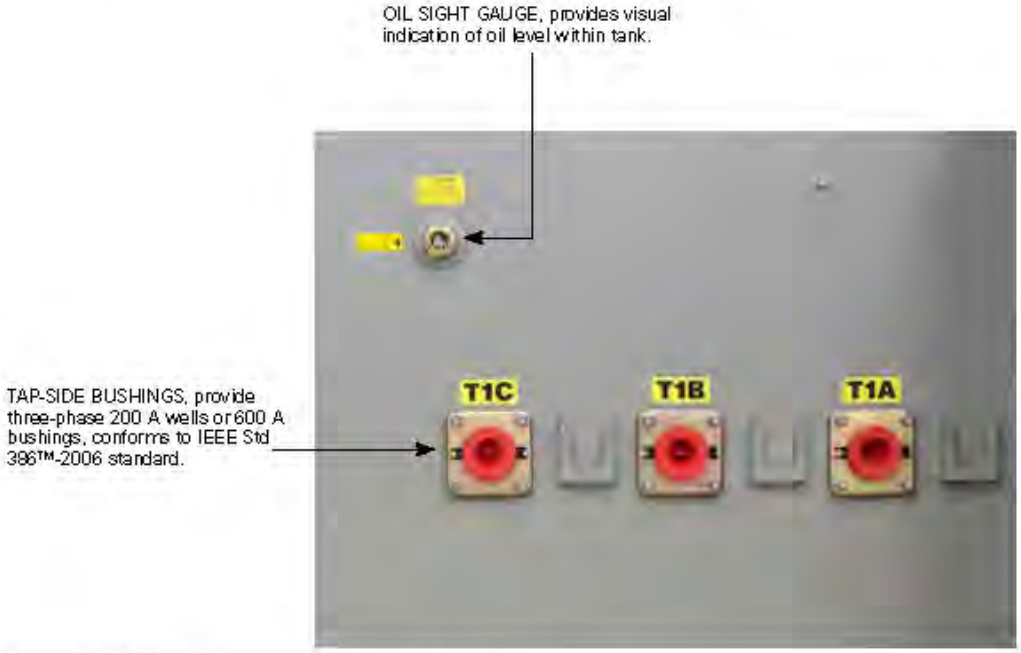


Figure 3. PST Model-6 switchgear tap-side view.

iST control

iST relay

The iST family of source transfer relays for two sources is a member of the Eaton's Cooper Power Systems Edison™ Idea™ line of protective relays. The iST relay family consists of the iST-621 for single feeder applications, and iST-921 and iST-901 for two feeder applications. The iST relay family also provides advanced metering, control, and communications, and event analysis tools.

The iST relays use ProView™ application software for PCs running the Microsoft® Windows® operating system. The Idea Workbench™ feature of ProView permits the user to add additional functionality.

Applications

The iST relays are designed for applications with one or two feeders.

- The iST-621 is the source transfer relay for configurations with two sources and a single feeder. Phase and ground overcurrent protection for the feeder is included.
- The iST-921 and iST-901 relays are designed for use as a pair on two feeder applications.

  The iST-921 is the source transfer relay for two sources and includes phase and ground overcurrent protection for the first feeder.

  The iST-901 relays provides phase and ground overcurrent protection for the second feeder.

To address the needs of automation, Energy Management Systems (EMS), and SCADA systems, the iST family of relays provide advanced power quality, load (tap) metering, control, and communications capabilities.

Transfer logic

The comprehensive transfer logic includes the following features:

Five source preference selections:

- Source 1 preferred; Normal restoration
- Source 1 preferred; Hold on alternate
- Source 2 preferred; Normal restoration
- Source 2 preferred; Hold on alternate
- No Source Preference

Normal restorations can be either Non-parallel with an adjustable time delay, or Parallel with sync-check.

The Parallel with Sync Check Restoration Mode supervises source closing for both automatic and manual operations. The Sync Check function compares the phase rotation, voltage magnitude, phase angle, and frequency of both sources. Paralleling of the sources is permitted only when all parameters are within the customer configurable thresholds. In automatic mode, it permits closing the preferred source prior to opening the alternate source to achieve a "blinkless" transfer.

In manual mode, the Sync Check function prevents accidental paralleling of non-synchronous sources. If parallel restoration is not enabled, both source switches cannot be closed in manual mode from the relay panel.

The alternate source can be either a utility line or a generator. Settings for generator startup time, standby time, and shutdown time are included.

There are seven independent parameters for Source Health. Each has a settable threshold and time delay.

Figure 4. iST relay front plate.

Any combination can be enabled to declare an unhealthy source:

- Two levels of phase-ground undervoltage (27)
- Positive sequence undervoltage (27P)
- Two levels of underfrequency (81U)
- Two levels of overfrequency (81O)

Four independent parameters declare Source Restoration. Any combination can be enabled to declare a restored source:

- Minimum phase-ground voltage (59)
- Minimum positive sequence voltage (59P)
- Minimum frequency (81U)
- Maximum frequency (81O)

Overcurrent protection

For single feeder applications, the iST-621 relay offers overcurrent protection of the single load, and separate inverse curves for phase and residual CLPU overcurrent elements to minimize nuisance trips. The TCC selection includes industry standard IEEE™ and IEC curves, industry standard recloser curves, 106 through 165, plus five commonly used fuse curves.

For dual feeder applications, the iST-921 relay offers independent inverse time phase and residual overcurrent protection for feeder 1 and the iST-901 relay offers independent inverse time phase and residual overcurrent protection for feeder 2.

A fault block function is included to enable or disable automatic transfer during an overcurrent (OC) event.

When enabled in the iST-621 single feeder application, fault block prevents an automatic transfer while the OC element is picked up. When an OC trip occurs, the iST-621 relay is switched to manual mode to prevent automatic operations until the relay is reset.

When enabled in the iST-921 / iST-901 two feeder application, fault block prevents an automatic transfer while either OC element is picked up. When the OC element drops out, or after a trip, automatic operation of the source switches resumes.

Metering

The iST relay family offers extensive metering capabilities, including:

- Instantaneous voltage and frequency of each source, and feeder current.
- Current, Watts, VARS, and power factor of each feeder.
- Demand metering (current and four quadrant power) of each feeder
- Energy metering (four quadrant) of the feeder
- Harmonics metering through the 15th harmonic including THD for all voltage and all current channels.

The iST relays automatically use the PTs of the connected source for all power, energy, and other voltage-related metering.

Use the Idea Workbench feature to customize the iST relays

The iST is a fully functional family of relays, ready to use right out of the box. However, there are applications where custom control logic, or custom functions need to be added to the relay. The Idea Workbench feature is a revolutionary graphical software programming environment which permits the user to customize the iST relays.

- Add new features or protective functions by means of Idea Workbench Custom Modules. These operate in the same fashion as the plug-ins for popular internet browsers. Your investment in the relay is protected as future needs and developments may be addressed through new Custom Modules.
- Create custom control and protection logic using over 400 programming signals and tools, all selectable from drag-off Toolboxes. Logic created using these tools can then be saved as Custom Modules to be reused or shared with associates.
- Monitor and control practically every aspect of the relay's operation.
- Create custom metering and measurement quantities.
- Create custom sequence of event records.
- Configure communication protocols to match existing SCADA system mappings.

The Idea Workbench offers the user the ability to rapidly and accurately create customizations by working the way the engineer thinks, by using logic diagram and flowchart construction methods. No equation-based or command-based logic programming is required. See Figure 5.

The Idea Workbench also addresses some of the more difficult questions associated with custom relay programming, namely:

Clarity: Compared to that offered by equation and command based programming techniques, graphical programming results in customizations whose operation is intuitive.

Testing: ProView software provides a Virtual Test Set™ (VTS), which can be used to test the developed logic with realistic fault signals. During test, the logic diagrams become "live" showing the state of all variables, logic gates, contacts, counters, etc. To avoid any question of how the custom logic interacts with the relay itself, the VTS environment models the entire relay in addition to the custom programming. Unlike other programming environments, the Idea Workbench does not require the user to have an actual relay or relay test set on hand to verify the proper operation of the programmed logic.

Documentation: Notes regarding how the custom logic operates may be embedded within the Idea Workbench. This improves the ability of others to quickly understand how the logic is designed to work. Links to external files may also be embedded in the Idea Workbench, providing fast access to larger documents stored on company's network servers.

Portability: If the original data files are lost, the entire Idea Workbench may be uploaded from the relay, complete with logic diagrams, embedded notes and external reference links.

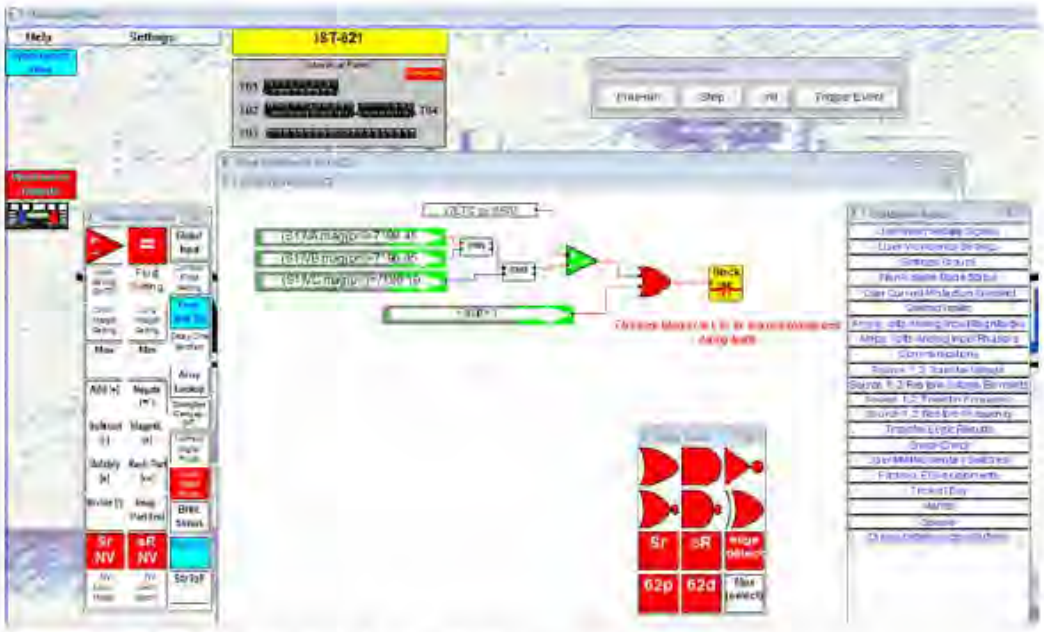


Figure 5. The Idea Workbench graphical customization environment.

Event records and analysis tools

The iST family of relays share the same event records and analysis tools as all Edison Idea relays. The Edison Idea relay allows for the display of event records in a variety of formats including waveforms (oscillography), magnitude plots, phasor diagrams, symmetrical component diagrams and more. ProView, the software for the Edison Idea relay, also provides a unique Application Diagram View that provides a one-screen view of everything that is going on in the relay. Many of these event views are also available in On-Line View mode, where it is possible to monitor the status of the relay in real-time, including phasor diagrams and the Sync Scope, which is ideal for verifying PT and CT phasing during commissioning.

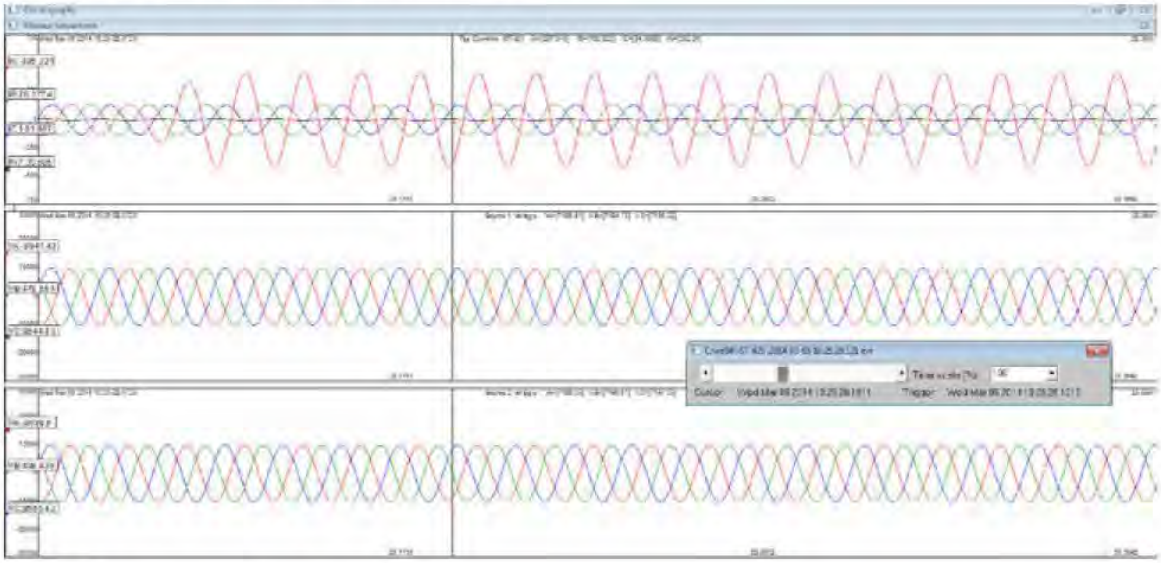


Figure 6. Current and voltage waveforms.

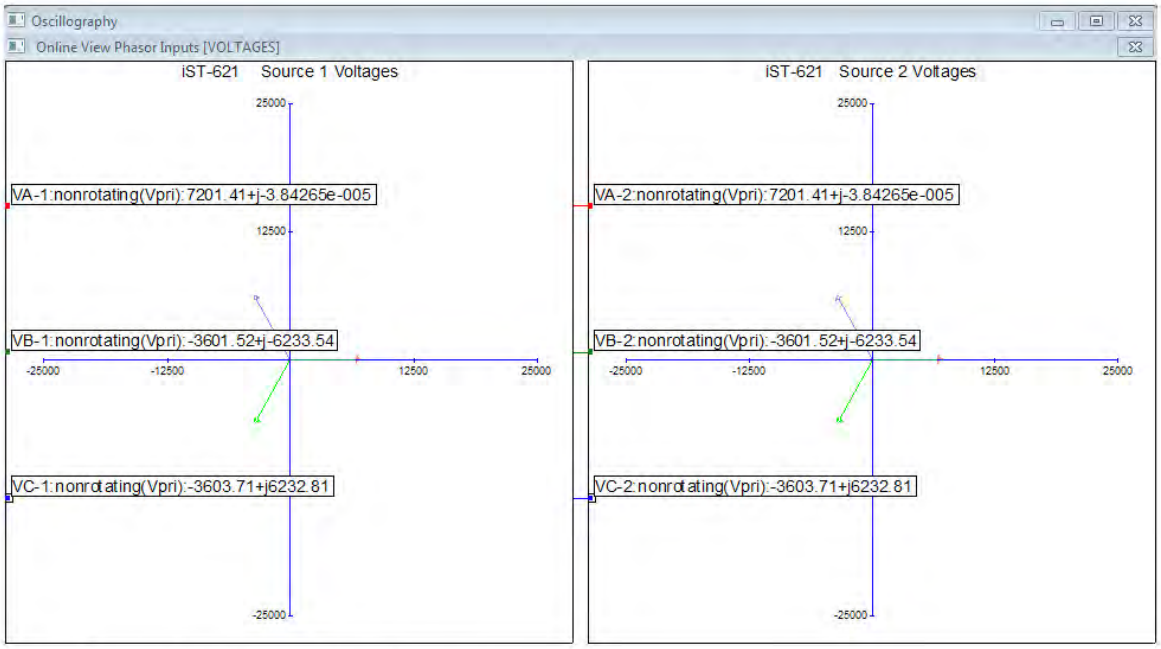


Figure 7. Source 1 and Source 2 phase diagrams.

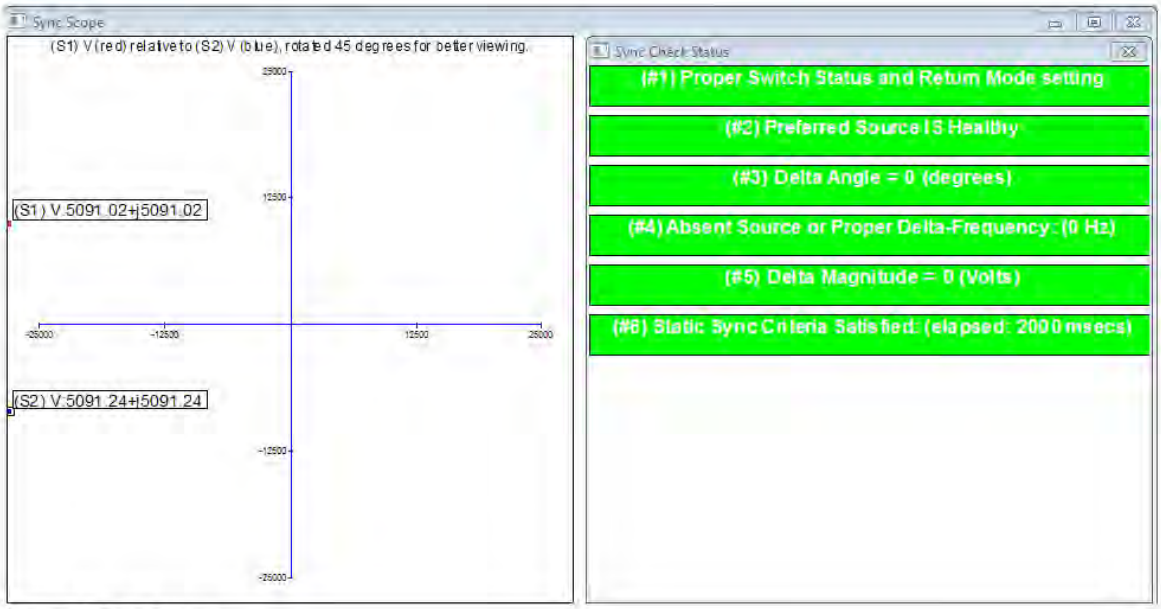


Figure 8. Sync scope.

Relay-Replay™

To evaluate the effect different settings would have on the relay, the Relay-Replay™ feature of the Edison Idea software allows the user to make any number of setting changes and replay an existing event using these new settings without the need for an actual relay or expensive test equipment. The operation of every aspect of the relay's performance, from which elements pick-up, the response time of those elements that do and the operation of any custom programming made via the Idea Workbench can be observed. This tool provides unprecedented "what-if" analysis capabilities.

Virtual Test Set (VTS)

To evaluate settings against any arbitrary fault, the Edison Idea relay ProView software permits the user to create a virtual event record through use of the Virtual Test Set (VTS) feature. The VTS allows complete control over:

- Pre-fault and post-fault voltage and current level
- Selection of dc time constant
- Control over fault dynamics
- Control of frequency change, rate of change and acceleration during faults
- Control over simulated breaker open and close times

Communications

Both Modbus RTU and DNP 3.0 communication protocols are included with the iST relay family. A Communications Workbench™ provides the user the ability to customize communication maps, add or delete information, add control points, and even create new signals to be brought out through communications. The iST relay family features two RS-232 auto-baud (57600 kbps max) communication ports and an optional port with either RS-485, serial fiber optic, or various Ethernet options (RJ-45, multi-mode fiber, single-mode fiber). Contact your Eaton's Cooper Power Systems representative for availability of other communication protocols.

Control cabinet

The iST relay is factory installed in a control cabinet made of the same material as the PST switchgear. As a standard, the control cabinet is located on the inside of the source cabinet, mounted onto the door in such a manner which removes the control cabinet from the airspace above cable openings.

The control cabinet, as a standard, includes a fused 120 V convenience receptacle, as well as a 120 V heater powered from the PST switchgear sensing PTs to reduce condensation.

To protect the iST relay, the control cabinet will also be provided with one fuse for each voltage input from the PST switchgear.

For better performance reliability, the iST control cabinet includes a battery to ensure extended power to the relay during extended outages where a healthy source is not immediately available.

Optionally, the control cabinet can be supplied with a terminal strip for customer monitoring of auxiliary switches to monitor the position of all interrupters within the PST switchgear.

The control cabinet is shipped, factory installed on the PST switchgear, and prewired to the sensing potential and current transformers, as well as the optional auxiliary switches.

Additional options

- 8 or 13 amp-hour battery
- 12 Vdc radio provision, and mounting space (contact factory for more information)
- 120 Vac battery charging circuit for spare batteries

AC wiring diagram

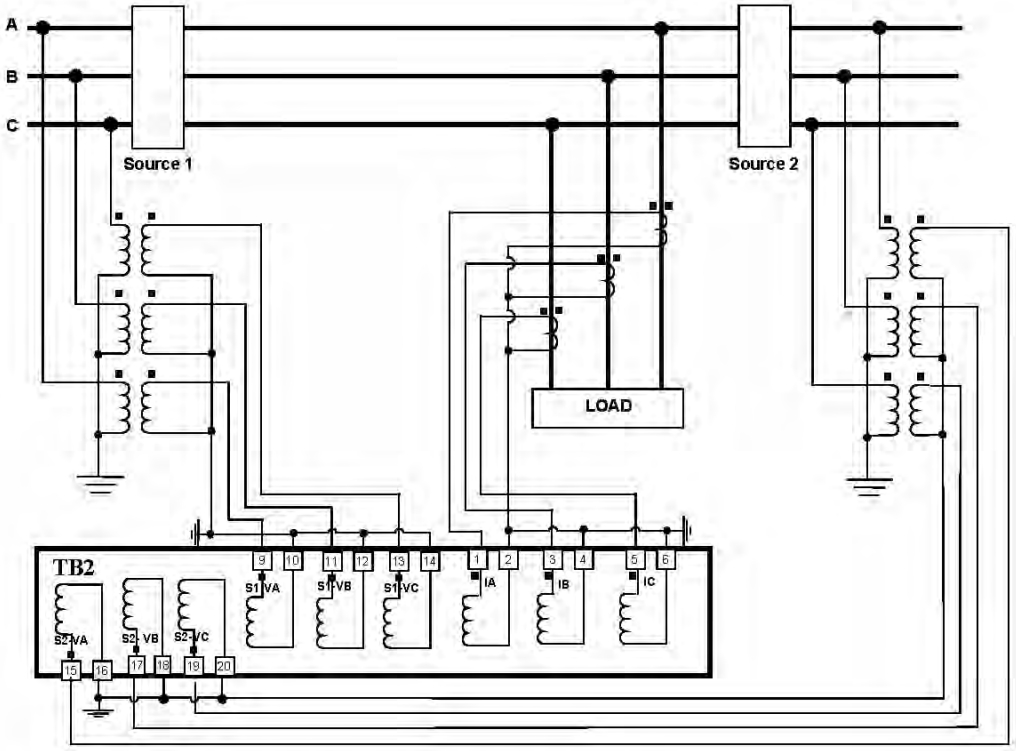
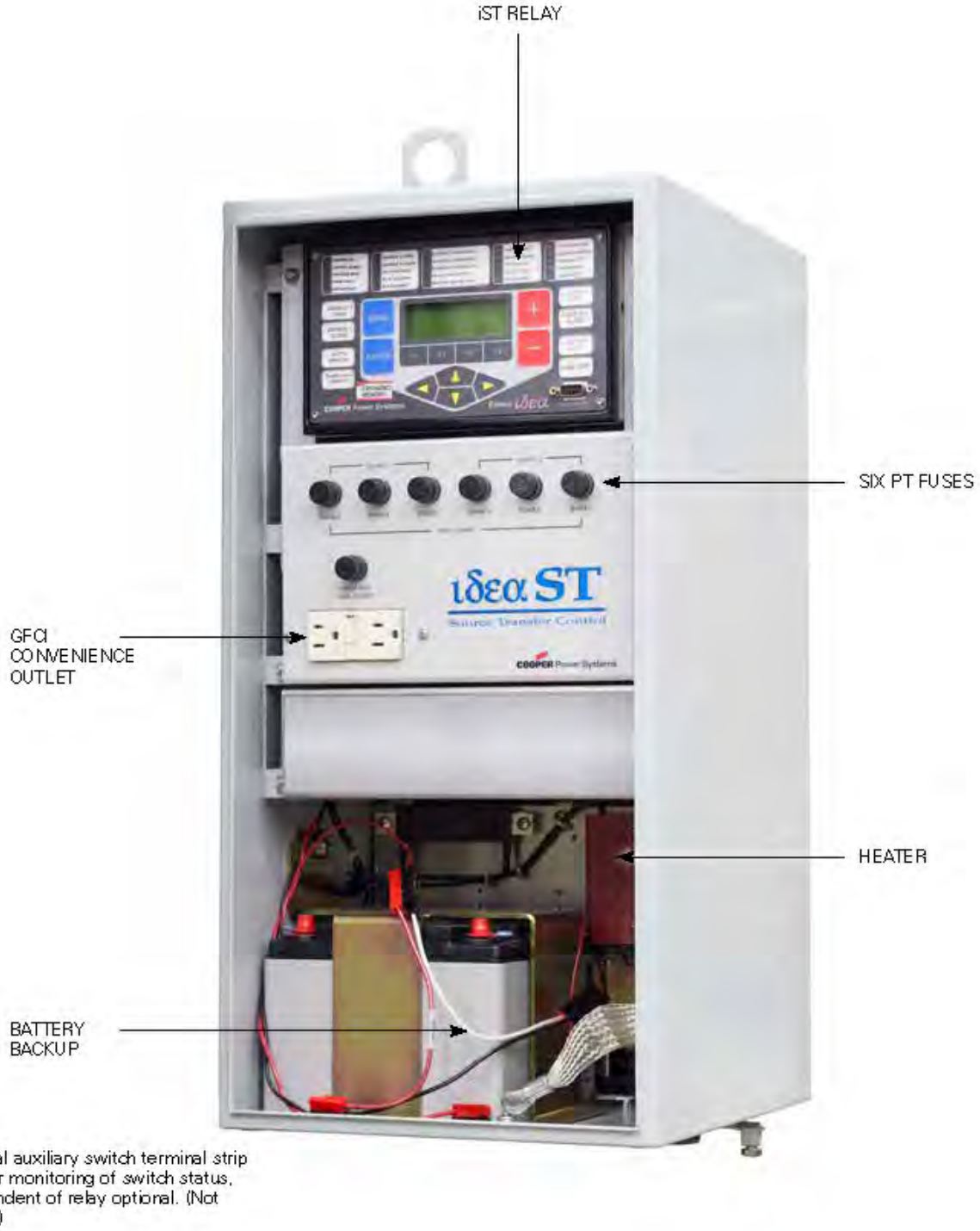


Figure 9. Typical iST-621 relay ac wiring diagram (GndY/GndY PTs)



Optional auxiliary switch terminal strip for user monitoring of switch status, independent of relay optional. (Not shown.)

Figure 10. iST control.

Dimensional information

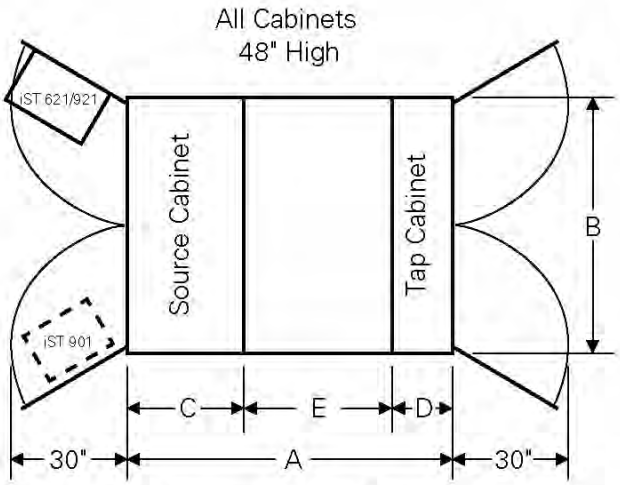


Figure 11. PST switchgear cabinet and dimensions.

Note: Dimensional information is for reference only, actual dimensions may vary depending on features included. All dimensions are shown in inches.

Table 1. PST Model-9 Switchgear Dimensions

kV	Figure 11 Label	Source/Tap 600 A/200 A	Source/Tap 600 A/600 A	Source/Tap 200 A/200 A
15 and 25	A	95	101	89
	B	70	70	70
	C	36	36	30
	D	16	22	16
	E	43	43	43
35	A	105	109	99
	B	70	70	70
	C	40	40	34
	D	22	26	22
	E	43	43	43

Table 2. PST Model-6 Switchgear Dimensions

kV	Figure 11 Label	Source/Tap 600 A/200 A	Source/Tap 600 A/600 A	Source/Tap 200 A/200 A
15 and 25	A	84	90	78
	B	62	62	62
	C	36	36	30
	D	16	22	16
	E	32	32	32
35	A	92	98	86
	B	70	70	70
	C	40	40	34
	D	20	26	20
	E	32	32	32

Specifications

Table 3. Electrical Ratings PST Transfer Switchgear

Description	15 kV	25 kV	35 kV
Maximum Design Voltage, kV	15.5	27	38
BIL, kV	95	125	150
1-Minute Withstand Voltage (60 Hz) Interrupter and Terminators, kV	35	40	50
Continuous Current (max), A	600	600	600
Interrupting Current (sym./asym.), kA	12/20	12/20	12/20
Momentary Current 10 cycles (asym.), kA	20	20	25
1 Second Withstand Current (sym.), kA	12	12	12
Making Current (sym.), kA	12	12	12
Transformer Magnetizing Interrupting Current, A	21	21	21
Cable Charging Interrupting Current, A	15	15	20
Capacitive, A	10	25	40

Table 4. Interrupting Duty Cycle

Percent of Interrupting Current Rating	Number of Operations
15 - 20	88
45 - 55	112
90 - 100	32
Total	232

Table 5. Switching and Transfer Times

Direction of Transfer Transition	Type of Return (Cycles)	First Interrupter Reaction Time* Cycles	Transition Time*
Preferred to Alternate	Non-Parallel	2.0 to 3.0	5.0 to 6.0
Alternate to Preferred	Non-Parallel	2.0 to 3.0	5.0 to 6.0
Alternate to Preferred	Parallel**	5.0 to 6.0	2.0 to 3.0

* Time from expiration of time delay to first opening (or closing) of high-voltage interrupter. Add about 1 cycle to values shown to allow for S control control time.

** Parallel return time does not include sync check time.

PST switch ordering information

Table 6. Bushing Configuration

	Bushing Amperage Rating (Source/Tap)		
Voltage Rating	**600 A/600 A**	**600 A/200 A***	**200 A/200 A***
15	1	2	3
25	4	5	6
35	7	8	9

* PST switchgear ordered with 15 or 25 kV rating are equipped with wells only on the 200 Amp side.

Table 7. Basic Models

Model	Nominal Voltage (Kv)	Catalog Number
6	15	KPST62
	25	KPST65
	35	KPST68
9	15	KPST92
	25	KPST95
	35	KPST98

Please specify system voltage and sensing PT primary connection (delta or wye).

For different amperage ratings, replace the last digit of the catalog number with the approximate digit from the Amperage Rating Table (Table 6).

Table 8. Construction

Tank Style	Material	Construction
Vault-Mounted Style*	Tank Material	Mild Steel construction with non-corrosive hardware **(STANDARD)**
		304L Stainless steel construction
Pad-Mounted Style	Tank/Cabinet Material	Mild Steel construction with non-corrosive hardware **(STANDARD)**
		304L Stainless steel construction
Paint color	Bell Green/Munsell 7GY **(STANDARD)**	
	Other paint color, top coat on external surfaces only (specify the Federal Spec Paint number)	

* Change first two digits of descriptor using Table 7 above from "KP" to "KV".

Table 9. Distribution Automation (Model-9 only)

Description	Motor Operator Positions
No motor operators/provisions **(STANDARD)**	N/A
Motor operator provisions*	On tap ways
Motor operators*	

* Motor operators require semaphores.

Table 10. Auxiliary Switch

Type	Position
Two-Stage Auxiliary Switch	Specify the ways: Source, Tap, or All

Table 11. Indicators (Model-9 only)

Description	Indicator Positions
Operation counter	On tap ways
Semaphore*	On tap ways

* Position indicator linked directly to operating mechanism and viewable through tank window.

Table 12. Grounding Options (select only one)

Ground Stud **(STANDARD)**
1/2" Round copper ground-bus
3" stand-off bracket for 1/2" round bus
NEMA® Ground Pad (welded to tank)
Flat copper ground-bus

Table 13. Fault Indicator Provisions (select only one)

No Fault Indicator provisions
Provisions for Fault Circuit Indicators (FCI) (1.06" dia. hole with removable SS backing plate)*
Provisions for S.T.A.R.™ FCI with large FISHEYE™
Provisions for S.T.A.R. FCI with small remote
Provisions for LED Display Indicator

* Accommodates future installation of S.T.A.R. FCI type indicators.

Table 14. Service Items

Description	
1" drain plug with 3/8" sampler **(STANDARD)**	Select only one
1" drain valve with 3/8" sampler	
Penta-head door bolt **(STANDARD)**	Select only one
Hex-head door bolt	

Table 15. Key Interlocks

Description
Provisions for key interlocks on tap ways (Model-9 only)*
None

* The switch handle will be designed for use with a KIRK® Key type B interlock with a ¾" bolt travel and 1" bolt projection.

Table 16. Decals

Danger High Voltage	Specify Location
Internal Mr. Ouch, bilingual	
External Mr. Ouch, bilingual	
Non PCB	

iST control ordering information

Constructing a catalog number

To order a standard iST control for use with PST Model-6 Automated Transfer Switchgear with an 8 amp-hour battery, wye connected voltage, mild steel cabinet, domestic front panel, standard auxiliary contacts, serial fiber optic communications and English labelling, the catalog number would be constructed in this manner:

Ordering information required

To order an iST control:

1. Use the chart at right and Table 17 to construct a catalog number that describes the required switch.
2. From Tables 18-23, specify the catalog numbers that describe the required accessories for each control.

KiST Basic letters for an iST Control

621 Scheme application:
- **621** for use with a PST Model-6
- **921** for use with a PST Model-9: controls 2 source and 1 tap ways†
- **901** for use with a PST Model-9: controls 1 tap way†

1 Battery:
- **1** for 8 amp hour battery.
- **2** for 13 amp hour battery

1 Voltage connection scheme:
- **1** for Wye connected voltage inputs

1 Cabinet Option
- **1** for mild steel cabinet
- **2** for stainless steel cabinet

1 Front Panel
- **1** for Fully customizeable, domestic front panel

1 Auxiliary input and output contacts
- **1** for Standard contacts; 8 input/8 output

3 Communications
- **1** for RS-485 DC (Modbus/DNP only)
- **3** for Serial fiber optic communications
- **4** for Ethernet fiber optic/fiber optic communications MRTJ/MTRJ
- **5** for Ethernet fiber optic/wire communications MTRJ/RH45
- **6** for Ethernet wire/wire communications RJ45/RJ45
- **7** for Standard (No communications)
- **8** for Ethernet single mode fiber optic/fiber optic communication

E Language
- **E** for English Language
- **X** for Other language required‡

KiSt 621 1 1 1 1 1 3 E

KiSt62111113E is the catalog number for the control in the example above

† A PST (Model-9) Source Transfer Package required both the KiST921 and KiST901 controls for operation

‡ Contact factory.

Table 17. iST Control

Description	Catalog Number						
Basic iST Automated Source Transfer Control	KiST						
Specify control application:							
621 = iST621 control for PST Model-6 application; Factory mounted with PST Model-6 package Control only for S control retrofit for PST Model-6 Control only replacement for existing iST621 control	621						
921 = iST921 control for PST Model-9 application; controls 2 source and 1 tap way† Factory mounted with PST Model-9 package Control only for S control retrofit for PST Model-9*††(not yet available) Control only replacement for existing iST921 control	921						
901 = iST901 control for PST Model-9 application; controls 1 tap way † Factory mounted with PST Model-9 package Control only replacement for existing iST901 control	901						
Battery:							
1 = 8 amp-hour battery 2 = 13 amp-hour battery		1 2					
Voltage Connection Scheme:							
1 Wye connected voltage inputs			1				
Cabinet Option							
1 = Mild steel cabinet				1			
2 = Stainless steel cabinet				2			
Front Panel							
1 = Fully customizeable front panel; domestic					1		
Auxiliary input and output contacts							
1 = Standard contacts; 8 input/8 output						1	
Communications‡‡							
1 = RS-485 D.C. isolate (DNP/Modbus only)							1
3 = Serial fiber optic (ST) communications							3
4 = Ethernet fiber optic/fiber optic communications with MTRJ/MTRJ connections							4
5 = Ethernet fiber optic/wire communications with MTRJ/RJ45 connections							5
6 = Ethernet wire/wire communications with RJ45/RJ45 connections							6
7 = Standard (none)							7
8 = Ethernet single mode fiber optic/fiber optic communication							8
Language							
E = English							E
X = Other language required‡							X

† A PST Model-9 Source Transfer Package requires both the KiST921 and the KiST901 controls for operation.

* Future Option; the PST Model-9 Retrofit kit is not yet available.

†† A PST Model-9 Retrofit requires only the KiST921 to operate the source ways; the existing KTPG controls will still be utilized for Taps.

‡ Contact factory

‡‡ All iST controls include two RS-232 serial ports, one for front panel configuration with the second port located on the back panel for SCADA/DA serial communications.

Accessories

Table 18. Auxiliary Switch Termination*†

Description	Catalog Number
Auxiliary switch receptacle and wiring	KiST-1801-2

* For connecting customer specified, additional A&B Auxiliary Switch contacts from the PST switchgear.

† For use only with the KiST621 and KiST921 controls.

Table 19. Convenience Outlet

Description	Catalog Number
Fused 120 Vac, 3-wire polarized GFCI convenience outlet	KiST-2970-1

Table 20. Automation Packages

Description	Catalog Number
Full automation accessory; 12 Vdc radio provision (Radio and fiber-optic/RS232 interface not included)	KiST-3770-1

Table 21. Communication Support Equipment

Description	Catalog Number
RS-232 cable, 6-ft., DB-9F and DB-9M, for direct connection between DATA PORT and PC	KME5-66
DB-9F to DB-25M Cable, 6 feet length	KP2412A3

Table 22. Cables

Description	Catalog Number
KiST921 Cables for S Control Retrofit; PST Model-9	TBD - FUTURE

Table 23. Miscellaneous Accessories

Description	Catalog Number
120 Vac Battery charger for spare batteries	KME5-60-1

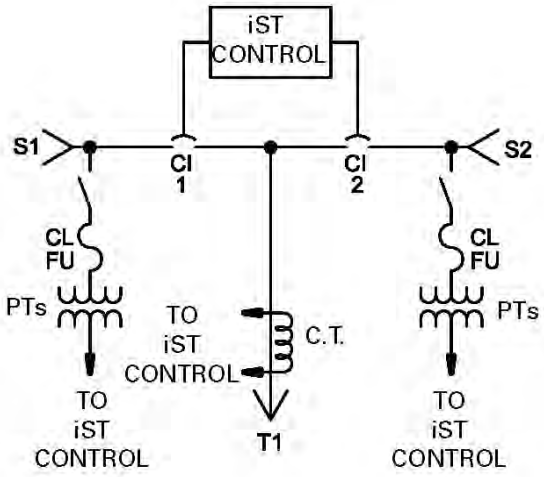


Figure 12. PST Model-6 switchgear diagram.

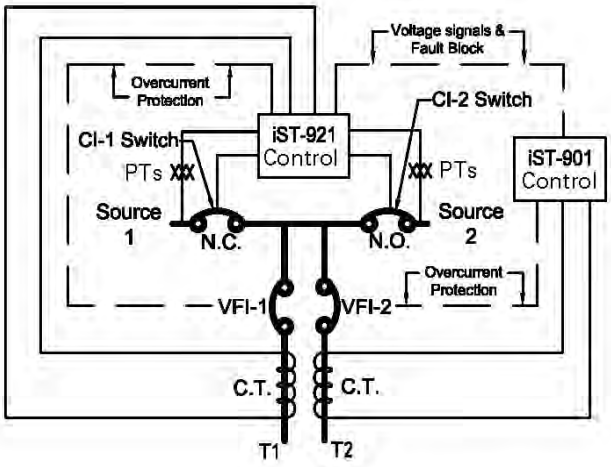


Figure 13. PST Model-9 switchgear diagram.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Power Systems Business
2300 Badger Drive
Waukesha, WI 53188
United States
Cooperpower.com

Publication No. 285-60

Powering Business Worldwide

For Eaton's Cooper Power Systems PST switchgear with iST control product information call 1-877-277-4636 or visit: www.cooperpower.com.

A6 – Typical 1.5MW Standby Generator

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Specification sheet

Centum™ Series Generators QSK38

1250 kW-1500 kW 60 Hz
EPA emissions

Description

Cummins® commercial generator sets are fully integrated power generation systems providing optimum performance, reliability and versatility for stationary Standby, Prime Power, and Data Center applications.

Features

Cummins heavy-duty engine - Rugged 4-cycle industrial diesel delivers reliable power, low emissions and fast response to load changes.

Alternator - Several alternator sizes offer selectable motor starting capability with low reactance 2/3 pitch windings, low waveform distortion with non-linear loads and fault clearing short-circuit capability and class H insulation.

G3 Capable – Consult factory for related performance rating as per ISO8528-5

HVO Fuel Compatible – Approved for use with paraffinic fuels (EN15940), including Hydrotreated vegetable oil which has a very low life cycle carbon emission

Permanent Magnet Generator (PMG) - Offers enhanced motor starting and fault clearing short circuit capability.

Control system - The PowerCommand® digital control is standard equipment and provides total genset system integration including automatic remote starting/stopping, precise frequency and voltage regulation, alarm and status message display, AmpSentry™ protective relay, output metering and auto-shutdown at fault detection and NFPA 110 Level 1 compliance.

Cooling system - Standard and enhanced integral set-mounted radiator systems, designed and tested for rated ambient temperatures, simplifies facility design requirements for rejected heat.

NFPA - The genset accepts full rated load in a single step in accordance with NFPA 110 for Level 1 systems.

Warranty and service - Backed by a standard standby three-year warranty and worldwide distributor network.

	Standby rating	Prime rating	Data Center Continuous rating	Emissions compliance
Model	60 Hz kW (kVA)	60 Hz kW (kVA)	60 Hz kW (kVA)	EPA
C1250D6E	1250 (1563)	1136 (1420)	1136 (1420)	EPA Tier 4
C1500D6E	1500 (1875)	1364 (1705)	1364 (1705)	EPA Tier 4

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Generator set specifications

Performance Class	ISO 8528-5 G3 Capable - refer to the factory for site and configuration specific transient performance classification
Voltage regulation, no load to full load	± 0.5%
Random voltage variation	± 1%
Frequency regulation	Isochronous
Random frequency variation	± 0.25
Electromagnetic Compatibility Performance	Emissions to EN 61000-6-2:2005 Immunity to EN 61000-6-4:2007+A1:2011 FCC PART 15 subpart B; ICES-002

Engine specifications

Bore	159 mm (6.26 in.)
Stroke	159 mm (6.26 in.)
Displacement	37.8 litres (2307 in^3)
Configuration	Cast iron, V 12 cylinder
Battery capacity	1800 amps minimum at ambient temperature of -18 °C (0 °F)
Battery charging alternator	100A
Starting voltage	24 volts, negative ground
Fuel system	Cummins YZ modular common rail system
Fuel filter	Two stage spin-on fuel filter and water separator system. Stage 1 has a two element 5 micron filter and stage 2 has a two element 4 micron filter.
Air cleaner type	Dry replaceable element
Lube oil filter type(s)	Four spin-on, combination full flow filter and bypass filters
Standard cooling system	High ambient cooling system

Alternator specifications

Design	Brushless, 4 pole, drip proof, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation system	Class H
Standard temperature rise	125 ºC standby
Exciter type	Permanent Magnet Generator (PMG)
Phase rotation	A (U), B (V), C (W)
Alternator cooling	Direct drive centrifugal blower fan
AC waveform total harmonic distortion (THDV)	< 5% no load to full linear load

Available voltages

60 Hz Line-Neutral/Line-Line

- 220/380
- 225/440
- 2400/4160
- 3810/6600
- 6350/11000
- 277/480
- 347/600
- 3637/6300
- 3983/6900

Note: Consult factory for other voltages.

Generator set options and accessories

Engine

- 240V thermo-statically controlled coolant heater
- 120/240V 500W lube oil heaters
- Heavy duty air cleaner
- Remote Duplex Fuel Filter
- Engine Oil Filters - Full Flow with Bypass
- Automatic Oil Make Up System and Monitoring
- Engine toolkit

Alternator

- 80°C/105°C /125°C/150°C rise
- Stator winding temp sensor 2 RTDs/phase
- Bearing temp sensor RTDs
- 1-hole or 2-hole lug output terminal
- Cable entrance box set mounted top or bottom entry
- 120/240V 225W anti-condensation heater
- Generator Louvres

Control panel

- Masterless Load Demand
- Multiple language support
- 120/240V 100W control anti-condensation heater
- Exhaust pyrometer
- Ground fault indication
- Paralleling relay package
- Shutdown alarm relay package
- Mechanical hour meter
- 6x user-configurable relays
- 8 additional I/O relays

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Generator set options and accessories (continued)

Exhaust system

- Industrial grade silencer
- Residential grade silencer
- Critical grade silencer

Cooling system

- Enhanced high ambient temperature (50 °C)
- Low coolant level warning
- Coolant heater

Generator set

- Oil Sampling Valve
- 10A battery charger
- Set mounted circuit breakers up to 3200 Amps
- Circuit breaker Aux and Trip contacts
- Anti-vibration mounts
- Battery temperature sensor
- IBC Certification
- HCAI Certification

Miscellaneous

- Multilingual manuals
- 3-year extended warranty
- 5-year extended warranty
- 10-year extended warranty
- Witness testing
- Virtual witness test
- Tier 4 compliant aftertreatment kits shipped loose

Note: Some options may not be available on all models - consult factory for availability.

PowerCommand 3.3 – control system

An integrated microprocessor based generator set control system providing voltage regulation, engine protection, alternator protection, operator interface and isochronous governing. Refer to document S-1570 for more detailed information on the control.

AmpSentry – Includes integral AmpSentry protection, which provides a full range of alternator protection functions that are matched to the alternator provided.

Power management – Control function provides battery monitoring and testing features and smart starting control system.

Advanced control methodology – Three phase sensing, full wave rectified voltage regulation, with a PWM output for stable operation with all load types.

Communications interface – Control comes standard with PCCNet and Modbus interface.

Service - InPower™ PC-based service tool available for detailed diagnostics, setup, data logging and fault simulation.

Easily upgradeable – PowerCommand controls are designed with common control interfaces.

Reliable design – The control system is designed for reliable operation in harsh environment.

Multi-language support

Operator panel features

Operator/display functions

- Displays paralleling breaker status
- Provides direct control of the paralleling breaker
- 320 x 240 pixels graphic LED backlight LCD
- Auto, manual, start, stop, fault reset and lamp test/ panel lamp switches
- Alpha-numeric display with pushbuttons
- LED lamps indicating genset running, remote start, not in auto, common shutdown, common warning, manual run mode, auto mode and stop

Paralleling control functions

- First Start Sensor™ system selects first genset to close to bus
- Phase lock loop synchronizer with voltage matching
- Sync check relay
- Isochronous kW and kVar load sharing
- Load govern control for utility paralleling
- Extended paralleling (base load/peak shave) mode
- Digital power transfer control, for use with a breaker pair to provide open transition, closed transition, ramping closed transition, peaking and base load functions.

Alternator data

- Line-to-Neutral and Line-to-Line AC volts
- 3-phase AC current
- Frequency
- kW, kVAr, power factor kVA (three phase and total)

Engine data

- DC voltage
- Engine speed
- Lube oil pressure and temperature
- Coolant temperature
- Comprehensive FAE data (where applicable)

Other data

- Genset model data
- Start attempts, starts, running hours, kW hours
- Load profile (operating hours at % load in 5% increments)
- Fault history
- Data logging and fault simulation (requires InPower)

Standard control functions

Digital governing

- Integrated digital electronic isochronous governor Temperature dynamic governing

Digital voltage regulation

- Integrated digital electronic voltage regulator
- 3-phase, 4-wire Line-to-Line sensing
- Configurable torque matching

AmpSentry AC protection

- AmpSentry protective relay
- Over current and short circuit shutdown
- Over current warning
- Single and three phase fault regulation
- Over and under voltage shutdown
- Over and under frequency shutdown
- Overload warning with alarm contact
- Reverse power and reverse Var shutdown
- Field overload shutdown

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Standard control functions (continued)-

Engine protection
- Battery voltage monitoring, protection and testing
- Overspeed shutdown
- Low oil pressure warning and shutdown
- High coolant temperature warning and shutdown
- Low coolant level warning or shutdown
- Fail to start (overcrank) shutdown
- Fail to crank shutdown
- Cranking lockout
- Sensor failure indication
- Full authority electronic engine protection

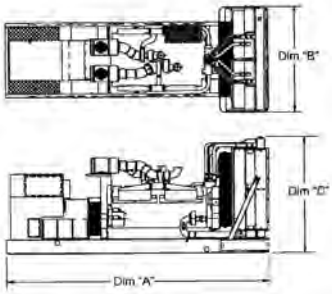
Control functions
- Time delay start and cool down
- Real time clock for fault and event time stamping
- Exerciser clock and time of day start/stop
- Data logging
- Cycle cranking
- Load shed
- Configurable inputs and outputs (4)
- Remote emergency stop

Options
- Auxiliary output relays (2)

Ratings definitions

Emergency Standby Power (ESP):
Applicable for supplying power to varying electrical loads for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, Data shown above represents gross engine performance and capabilities as per ISO 3046-1, obtained and corrected in accordance with ISO 15550

Prime Power (PRP):
Applicable for supplying power to varying electrical loads for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, Data shown above represents gross engine performance and capabilities as per ISO 3046-1, obtained and corrected in accordance with ISO 15550



This outline drawing is for reference only. See respective model data sheet for specific model outline drawing number.

Do not use for installation design

Model	Dim "A" mm (in.)	Dim "B" mm (in.)	Dim "C" mm (in.)	Set weight* dry kg (lbs)	Set weight* wet kg (lbs)
C1250D6E	5085 (200)	2184(86)	2406(94.7)	9197 (20276)	9687 (21357)
C1500D6E	5085 (200)	2184(86)	2406(94.7)	9231 (20351)	9721 (21431)

*Note: Weights represent a set with standard features. See outline drawings for weights of other configurations.

Codes and standards

Codes or standards compliance may not be available with all model configurations – consult factory for availability.

ISO 9001	This product was manufactured in a plant whose quality management system is registered as being in conformity with ISO 9001	UL	UL Listing to UL 2200, "Stationary Engine Generator Assemblies" is available for this genset model
PTS	The Prototype Test Support (PTS) program verifies the performance integrity of the generator set design. Cummins products bearing the PTS symbol meet the prototype test requirements of NFPA 110 for Level 1 systems.	**U.S. EPA**	Engine certified to Stationary Emergency U.S. EPA New Source Performance Standards, 40 CFR 60 subpart IIII Tier 2 exhaust emission levels. U.S. applications must be applied per this EPA regulation.
CSA	All genset models are available as CSA certified to CSA C22.2 No. 100	**International Building Code**	The generator set package is available certified for seismic application in accordance with International Building Code

Warning: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open

For more information contact your local Cummins distributor or visit cummins.com

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From: Kevin JOHNSTON
To: DNguyen
Cc: chuckweir@sbcglobal.net
Subject: Re: LAVWMA Solar Draft Repo
Date: Wednesday, November 9, 2022 9:25:20 AM
Attachments: image.png
image.png

Hi Diep and Chuck -

We have the revised layout - see below and let me know if this looks right per the 'keep out' markups provided earlier or if you think there are areas where we can expand to increase capacity. This is 1.74MW producing 2.8M kWh/year.

Diep, the batteries don't make economic sense from a utility savings perspective and from your previous comments it seems a large battery resiliency play isn't economic given the MWhs of BESS capacity we would need - can you please confirm? We can hop on a quick call to discuss further if you think there's some potential there.

We can start working the PPA proposal based on this layout and modify if the layout gets tweaked with any additional feedback. We should be able to get the proposal to you early next week.

System Metrics

Design	Indicative Redesign (based on feedback)
Module DC Nameplate	1.74 MW
Inverter AC Nameplate	1.50 MW Load Ratio: 1.16
Annual Production	2.809 GWh
Performance Ratio	84.6%
kWh/kWp	1,614.2
Weather Dataset	TMY, 6110 Stoneridge Mall Rd, null (custom)


HelioScope

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

ITEM NO. 14 AUTHORIZATION FOR THE GENERAL MANAGER TO ENTER INTO A MEMORANDUM OF AGREEMENT TO PARTICIPATE IN THE REGIONAL PURIFIED WATER PILOT PROJECT – PHASE 2

Action Requested
Authorize the General Manager to enter into a Memorandum of Agreement to Participate in the Regional Purified Water Pilot Project – Phase 2

Summary
At the June 29, 2022 LAVWMA Board meeting, the General Manager shared information on the Regional Purified Water Pilot Project that DSRSD has been developing in collaboration with the Alameda County Water District (ACWD) and other Bay Area water and wastewater agencies. The Pilot Project would (1) leverage existing resources and infrastructure to demonstrate and build awareness around the benefits of purified water and regional collaboration and (2) allow for the collection of data that could be used to inform potential full-scale reuse efforts. Purified water, or potable reuse, is one of multiple water supply options being explored by Bay Area water agencies to improve long-term water supply reliability and drought resiliency for the region.

The Regional Purified Water Pilot Project (Pilot Project) would purify treated wastewater from DSRSD and the City of Livermore at a temporary advanced water purification facility located at the LAVWMA export facilities, where treated wastewater from Livermore's Water Reclamation Plant combines with treated wastewater from DSRSD's Wastewater Treatment Plant for discharge to San Francisco Bay. The Pilot Project would discharge approximately 0.2 million gallons per day of purified water into a nearby canal to supplement flows in Alameda Creek before ultimately being diverted by ACWD for groundwater recharge at Quarry Lakes. The Pilot Project would operate year-round with flows from DSRSD and Livermore, or seasonally with flows from only DSRSD due to existing irrigation recycled water demands.

In mid-2022, DSRSD, completed an initial feasibility study (Phase 1) of the Pilot Project with input from potential partner agencies. The results of the Phase 1 study were included in the June 29, 2022 LAVWMA Board meeting agenda packet. Based on the results of the Phase 1 study, DSRSD, ACWD, Livermore, Zone 7 Water Agency, and Union Sanitary District have all expressed interest in moving forward with Phase 2 of the Pilot Project. Phase 2 involves initiating public outreach and education efforts to assess public acceptability around the Pilot Project and more generally, purified water projects, and monitoring funding opportunities that could be used to support public outreach efforts and potential future phases of the project.

A Memorandum of Agreement has been prepared to formalize DSRSD, ACWD, Zone 7 Water Agency, and Union Sanitary District's commitment to implementing Phase 2, which would

involve cost-sharing on the preparation of a Public Outreach Plan with the assistance of a hired consultant. It is proposed that LAVWMA would also be a party to this agreement due to the potential location of the Pilot Project adjacent to the LAVWMA junction box structure. However, LAVWMA would not contribute funding to this Pilot Project and staff time on this effort is anticipated to be minimal.

The key terms of the Memorandum of Agreement include:

- All parties would agree to work cooperatively on the Public Outreach Plan and share relevant engineering and operational data.
- ACWD would serve as the contract administrator and be responsible for procuring and managing the Public Outreach Plan consultant.
- The parties, not including LAVWMA, would collectively contribute a total of $120,000 towards the funding of the Public Outreach Plan. The parties may seek additional outside funding for the Public Outreach Plan.

The parties are planning to execute the Memorandum of Agreement by the end of December 31, 2022. Phase 2 is anticipated to take 12-18 months to complete. At the completion of Phase 2, the parties would review the results of Phase 2 and evaluate potential interest in implementing future phases of the Pilot Project. Participation in Phase 2 does not obligate any parties to participate in future phases of the Pilot Project. Before LAVWMA participates in future phases of the Pilot Project, staff will seek Board input and direction.

Recommendation
Authorize the General Manager to execute the Memorandum of Agreement to participate in Phase 2 of the Regional Purified Water Pilot Project. General Counsel will review the MOA to insure there are no issues of concern for LAVWMA.

CEQA Determination
Entering into the MOU does not bind the Agency to participate in any physical development. For this reason, under CEQA Guidelines 15061, it can be seen with certainty that the proposed action would not have the possibility of having a significant effect on the environment and thus would be exempt from CEQA.

Attachments
Regional Purified Water Pilot Project Fact Sheet.

DRAFT | May 30, 2022

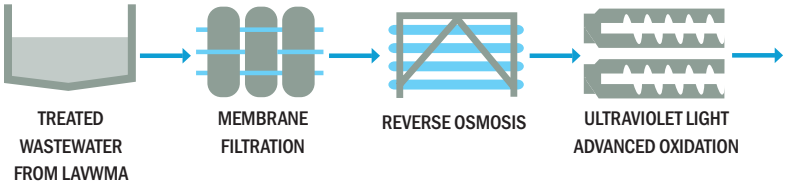
Dublin San Ramon Services District
Water, wastewater, recycled water

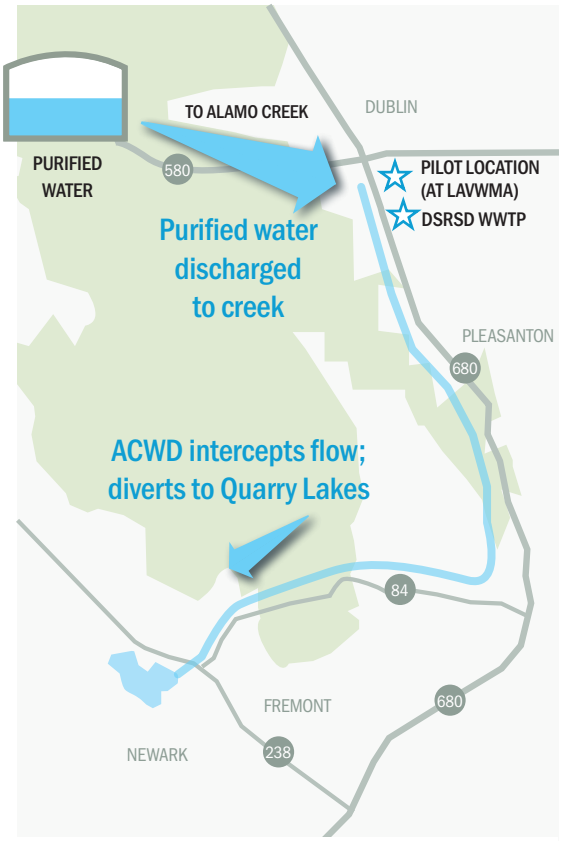
Regional Purified Water Pilot Project

Dublin San Ramon Services District (DSRSD) and Alameda County Water District (ACWD) are studying the potential to develop a purified water pilot project in collaboration with other Bay Area water and wastewater agencies. The pilot would leverage existing resources and infrastructure to demonstrate and build public awareness around the benefits of purified water and regional collaboration.

Purified Water

is one of multiple water supply options being explored by Bay Area agencies to improve long-term water resiliency for the region. Purified water is produced using advanced treatment technologies to purify treated wastewater effluent to a high quality that is suitable for augmenting drinking water sources. Purified water is a new, locally available and sustainable supply that makes use of a resource that would otherwise be discharged to San Francisco Bay.





Pilot Concept

The proposed concept was developed through a series of workshops with potential partner agencies. The pilot would purify treated wastewater from the Livermore-Amador Valley Water Management Agency (LAVWMA), which originates from DSRSD and Livermore Wastewater Treatment Plants and is currently discharged to the San Francisco Bay. The pilot project would operate year round with flows from DSRSD and Livermore, or seasonally with flows from only DSRSD due to existing irrigation recycled water demands. Utilizing treated wastewater flows would retain this resource locally and purify it through a multi-step advanced treatment process involving membrane filtration, reverse osmosis, and ultraviolet light advanced oxidation. The envisioned pilot project would deliver 0.2 million gallons per day of purified water to a nearby canal, which would supplement flows in Alameda Creek and ultimately be diverted by ACWD 15 miles downstream for groundwater recharge.

Key Benefits of Purified Water Pilot

- Provides an **interactive public outreach opportunity.**
- Demonstrates the **safety and effectiveness of purified water technology.**
- **Collects data to inform future** full-scale regional purified water project options.
- Promotes **regional collaboration.**
- **Leverages existing infrastructure and makes use of wastewater** currently discharged to San Francisco Bay.

Small-scale treatment system (~50 ft x 60 ft)

$2.3M Capital Cost
(planning level estimate)

$340,000 O&M
for a two-year pilot

2-year pilot project

Grant funding potentially available

Potential Partner Agencies

These agencies have provided input to develop the pilot concept and are evaluating potential participation in Phase 2 to futher advance the project.

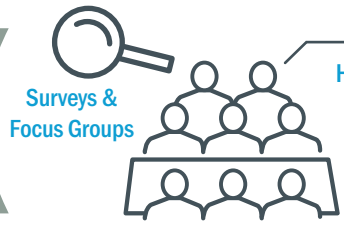
- Alameda County Water District
- City of Livermore
- Dublin San Ramon Services District
- Livermore-Amador Valley Water Management Agency
- Union Sanitary District
- Zone 7 Water Agency

Public Outreach and Education

The pilot would be designed to enable public tours and other interactive outreach components–such as displaying real-time water quality data and producing purified water on-site.

Identify Stakeholders

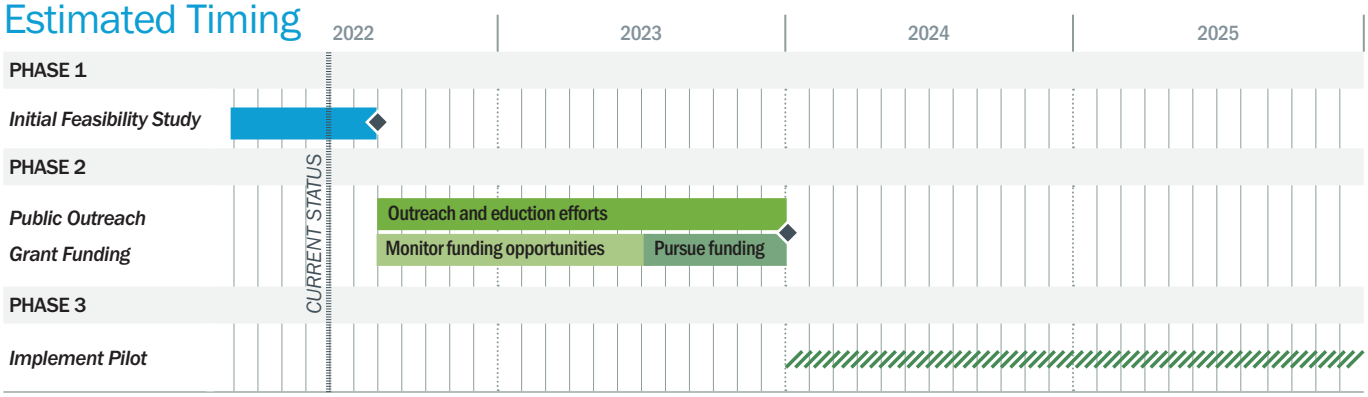
Collect Data



Develop Outreach Strategy

- Goals and Objectives
- Messaging
- Strategies (Pilot Testing)
- Timeline
- Evaluation

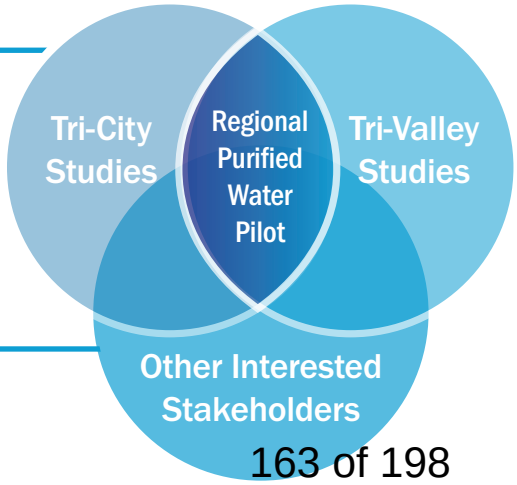
Estimated Timing



◆ Decision point for participation in next phase

Regional Collaboration

The purified water pilot would bring together partners currently involved in other ongoing regional efforts and build upon both the Tri-City and the Tri-Valley studies. The purified water pilot would benefit these ongoing efforts and the broader region by performing public outreach and education and collecting data to inform future full-scale reuse efforts and/or water transfer or exchange partnerships in the Bay Area.



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

ITEM NO. 15 UPDATE AND RESPONSE TO VARIOUS LEGAL AND LEGISLATIVE ISSUES

Action Requested
None at this time.

Summary
Attached for the Board's information is **Item No. 15.1**, California Association of Sanitation Agencies (CASA) Regulatory Update for November 2022. Also attached for the Board's information is **Item No. 15.2**, CASA Connects dated November 2, 2022. The CASA documents include updates on a number of regulatory and legislative issues. The regulatory update cover topics related to Water Quality, Biosolids, Air, and a Calendar for key dates and meetings.

BACWA has issued its November 2022 Bulletin, **Item No. 15.2**, which highlights regulatory issues for Bay Ares wastewater treatment plants. A key item of interest for the member agencies is that the State Water Board will consider adopting the Sanitary Sewer Systems Waste Discharge Requirements on December 6, 2022. This order updates the requirements for agencies as to how they manage their collection systems in an effort to reduce sanitary sewer overflows, which can harm local streams and creeks.

The Regional Monitoring Program held its annual meeting on October 3, 2022. One of the items covered in detail was the algal bloom in SF Bay that occurred in August 2022. A combination of high temperatures and low wind helped to create the bloom. Treatment plants have received a lot of adverse publicity on this issue as they are the largest source of nutrients to the Bay. BACWA is working closely with the Regional Board to better understand the issues and develop cost-effective solutions.

The legislature has been relatively inactive over the last few months due to the November election. Once new State Assembly and Senate members are seated legislative activity will puck up again.

Recommendation
There is no recommendation at this time.

Attachments
15.1 CASA Regulatory Bulletin for November 2022
15.2 CASA Connects for November 2, 2022
15.3 BACWA November 2022 Bulletin

chuckweir@sbcglobal.net

From: Jared Voskuhl <JVoskuhl@casaweb.org>
Sent: Tuesday, November 1, 2022 12:20 PM
Subject: [Regulatory] CASA Regulatory Update - November 2022

Flag Status: Flagged

Good Afternoon,

Please find below water quality, biosolids, and air updates from September and October and for November. Our next Regulatory Workgroup meetings will be held on November 17, the next ACE meeting will be held on November 15, and our Collection Systems Workgroup will meet on November 1, November 9, and November 16 to review and discuss the final draft of the SSS WDR order, which is scheduled for adoption by the State Water Board in the first week of December. Please let us know if you have any questions about these updates or if you have problems accessing the materials.

Thank you,
The RWG Team

WATER QUALITY

SWRCB Releases Final Draft of New SSS WDR Order
On October 28, the State Water Resources Control Board (State Water Board/SWRCB) released the final draft of the Sanitary Sewer System Waste Discharge Requirements (SSS WDR). A public workshop is scheduled on Monday, November 14 from 9 AM to 1:30 PM, and the SWRCB has scheduled adoption of the SSS WDR on December 6, to be effective on May 5, 2023. CASA's Collection Systems Workgroup will meet on November 1 (9 AM – 12 PM; Zoom Link), November 9 (1 – 3 PM; Zoom Link), and November 16 (1 – 3 PM; Zoom Link) to discuss the draft and final changes that we should pursue to ensure its implementation is practical for our members who are part of the eleven hundred collection systems across California. You may access a draft version of the SSS WDR with redlines showing changes from the SWRCB's January 3, 2022 draft

on which CASA, BACWA, CVCWA, and SCAP submitted formal comments, and the SWRCB's Response to Comments is scheduled to be released later this week. Please reach out to Jared Voskuhl with your feedback, comments, or questions.

DWR Submits Water Use Efficiency Recommendations and Reports to State Water Board
On October 28, DWR transmitted to the State Water Board the full recommendations package featuring 21 reports including technical appendices for urban water use efficiency pursuant to California Water Code § 10609. These reports follow DWR's "Summary Recommendations" previously submitted to the State Water Board on September 29, 2022. The full reports can be found on DWR's Urban Water Use Efficiency Standards, Variances and Performance Measures webpage. The reports and technical appendices provide details on DWR's process conducting the necessary studies and investigations, data analyses, development of the recommendations, and guidelines and methodologies for urban water suppliers for calculating their annual water use objective. The documents also include information about the public engagement processes and public comments DWR received during the development of the recommendations.

Related to additional analyses of the changing indoor water use standards, under Senate Bill 1157 (SB 1157), which was passed this year and signed into law by Governor Newsom, DWR in coordination with the SWRCB must provide another report to the Legislature by October 2028 summarizing the findings from additional mandated studies and investigations to assess and quantify the economic benefit and impacts of a 42 gallons per capita per day indoor residential standard on water, wastewater, and recycled water systems. This report is required to be conducted in a timely and inclusive manner with input from a broad group of stakeholders, including wastewater and recycled water agencies.

SB 1157 also requires DWR to consider recommending to the SWRCB variances to accommodate unique challenges related to residential indoor water use, such as stranded assets, impacts to environmental flows, or adverse impacts to wastewater or recycled water operations. Notably, Governor Newsom's signing message observed that apart from DWR recommendations, the State Water Board is allowed to create variances and encouraged to do so for recycled water.

If you have inquiries about the reports or how the State Water Board will proceed with its water use efficiency and water use objectives rulemaking, please reach out to Jared Voskuhl.

CASA Submits Letter to USEPA on Proposed CERCLA PFAS Rulemaking
On November 1, CASA submitted its comment letter to the United States Environmental Protection Agency (USEPA), on their Advanced Federal Register Notice of Proposed CERCLA Designation of PFOA and PFOS Rule. USEPA has proposed to designate PFOA and PFOS as hazardous substances under CERCLA, based on evidence that the chemicals "may present substantial danger to public health or welfare or the environment when released into the environment." The advanced proposed rulemaking identifies wastewater treatment facilities as one of the five broad categories affected by this action, as entities are not designed to treat/remove PFAS but receive the chemicals in their waste stream.

After USEPA officially released the rulemaking materials on September 6, the agency provided a 60-day public comment period. CASA, as part of a coalition of stakeholders representing water and wastewater sectors, submitted a letter in response to the proposed rulemaking,

requesting the Agency extend the public comment period to allow water sectors to adequately respond to the rulemaking and allow for sufficient review of the comments. Additionally, the letter requested that the Agency make the Economic Assessment of the Potential Costs and Other Impacts report publicly available. However, it was announced in October that USEPA denied the request for an extension and comments would be due by the original 11/6 deadline. If you have any questions about our letter or this proposed rulemaking, please reach out to Adam Link.

SWRCB Adopts CWSRF 22-23 IUP Adding $240m in New Projects to the Fundable List

On October 3, the State Water Board adopted the Clean Water State Revolving Fund Intended Use Plan for Fiscal Year 2022-23 (CWSRF IUP 22-23), which included changes shown in this Change Sheet released before the hearing, under which the Board will place approximately $240 million in projects on the fundable list. Previously on August 24, the State Water Board released the draft CWSRF IUP 22-23 which recommended that no new infrastructure projects be added onto the fundable list, despite historic investments from the federal and state governments.

On September 23, CASA and WateReuse California (WRCA) submitted a formal comment letter, noting we did not support the draft recommendation, following up on public comments provided to the September SWRCB workshop on 9/7, where numerous commenters conveyed opposition to this proposal.

In the week between the comment deadline and the CWSRF IUP 22-23's adoption, CASA and numerous members held meetings with SWRCB staff and SWRCB members to advocate for a different recommendation for the policy. While ultimately the $240 million sum is far less than the $600 million of the CWSRF's annual sustainable funding capacity, SWRCB explained the approval of nearly $2 billion in projects last year had stretched staff resources and the program's cash flow, thus why they had not wanted to add more projects. As for the CWSRF program going forward, the SWRCB has launched a stakeholder group to track changes and advise on improvements to increase funding capacity and originate loans on a briefer timeframe. Please reach out to Jared Voskuhl with any questions about the CWSRF.

SWRCB Water Quality Fees Adopted on 9/20

On September 20, the SWRCB adopted its fiscal year 2022-23 Waste Discharge Permit Fund fee schedule for various water quality programs at the Board. WDR fee payers will have a 3.8% increase and NPDES wastewater fee payers will have a 4.1% increase, which each include a 5% increase in order to establish an overall WDPF fund reserve which may be accessed in future years for other programs in the fund.

During the adoption hearing, CASA, along with other stakeholders from different water quality fee programs reiterated our comments in opposition to pursuing the establishment of the fund reserve this year, suggesting different alternatives or conditions. CASA also submitted a comment letter on September 2.

After listening to the public comment, and despite opposition to pursuing the establishment of the fund reserve in the recommended manner this year, to ensure that any reserves gathered are restricted to fund those specific programs which contributed to them, the Board voted unanimously to accept the fee schedule that had been proposed in August.

The development of the 2023-24 fee schedule will proceed with public meetings in March, June, and August 2023. Before then, and in advance of the release of the Governor's 2023 Budget in January, some outreach to the legislature has been discussed with stakeholders, but with the state tax returns coming in less than estimated and legislation being vetoed because of limited state resources, it is uncertain whether the Appropriations Committee will be receptive to a request for a one-time funding contribution to the WDPF to establish the reserve and pay for foundational programs which previously had been supported by the state's general fund. If you are interested in these matters or have any questions about the 2022-23 fees, please reach out to Jared Voskuhl.

SCCWRP OAH Research and SWRCB Coastal Nutrient Management Policy Update

On September 9, SCCWRP held its quarterly public Commission meeting, and there was a presentation on the potential for wastewater recycling and nutrient reductions to reduce the modeled adverse effects of ocean acidification and hypoxia (OAH) which are attributed to wastewater discharges. One of the takeaways from their presentation was that unless denitrification is coupled with water recycling, recycling will exacerbate the impacts of OAH. Previously during the SCCWRP Commission's June 3 meeting, researchers shared about the modeled effects of wastewater discharges on OAH and the biological effects of those changes. Those presentations are available here.

Since these meetings, SCCWRP has worked with their Technical Advisory Group to identify further research and analyses to conduct over the next year, which likely will include empaneling an expert science panel for an independent review of the OAH model. CASA's OAH subgroup held a meeting on October 4 and is hosting another one on November 1 to discuss this further with four wastewater CTAG members along with other CASA and SCAP members in southern California.

Additionally, this past summer the State Water Board's Statewide & Regional Policies was updated in July to note that SWRCB staff are scoping an Ocean Plan amendment to add water quality objectives and a program of implementation to address ocean acidification, hypoxia, and the effects of anthropogenic sources of nutrients in ocean waters. Their current schedule includes releasing the draft Ocean Plan in June 2024, with a hearing in the subsequent month, followed with adoption by June 2025. SWRCB staff currently are working with the OPC, SCCWRP, and others to better understand (1) the impacts of ocean acidification and hypoxia on marine life, (2) the effects of anthropogenic sources of nutrients, and (3) appropriate parameters and thresholds to address these impacts. Staff is also working within the Integrated Report program to identify appropriate parameters (e.g., aragonite saturation, pH, dissolved oxygen) and thresholds to determine if parts of the Pacific is impaired for ocean acidification, as it may pertain to future 303(d) listings.

Please reach out to Jared Voskuhl with questions about these developments or briefings with State Water Board members in October about coastal nutrient management policy matters.

SWRCB CEC's Monitoring Presentation at WateReuse Annual Conference

At WateReuse California's Annual Conference this past September, the State Water Board provided a presentation on monitoring recommendations proceeding out of the Constituents of Emerging Concern (CEC) Science Advisory Panel for Aquatic Ecosystems (CEC Aquatic

Ecosystems Panel), which is funded by a grant to SCCWRP from the SWRCB and OPC. The CEC Aquatic Ecosystems Panel assessed 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 have updated their 2012 recommendations. The panel initially met in October 2020 and had a follow-up meeting in February 2022 to commence drafting the final report. The presentation at WateReuse's conference included a preview of the SWRCB's forthcoming report on CECs and the monitoring strategies that the Board will pursue over the next decade. Tentatively, a public presentation is planned in December, for which in advance, the draft report will be released. If you have any questions, please reach out to Jared Voskuhl.

SWRCB Water Quality Coordinating Committee Meetings on 10/27 & 10/28

On October 27-28, the State Water Board hosted its annual Water Quality Coordinating Committee where the SWRCB Board Members and the Board Members from each of the nine Regional Water Quality Control Boards convene over two days. This year, their meeting agenda included discussions on recycled water, the Governor's Water Supply Strategy, water conservation, and permit streamlining.

Notably during the water conservation update, SWRCB staff shared that the Governor directed the SWRCB to consider and develop new short-term requirements that could take effect in spring 2023, if drought conditions persist. These new requirements would consider the relative efficiency of each water supplier, and the new efficient target would therefore work as a bridge to take California from voluntary measures to efficiency-based, water-use budgets that account for differences in climate zones, landscape area, population, and other factors.

Additionally, during the recycled water update, SWRCB staff shared they are on track to adopt the direct potable reuse regulations by December 2023, and in January 2024 intend to convene a strike team to identify and resolve permitting and funding barriers in coordination with CASA, WateReuse, and the SWRCB's Division of Water Quality, Division of Financial Assistance, and Office of Information Management and Assessment. If you have any questions, please reach out to Jared Voskuhl.

USEPA Announces 2022 – 2032 Vision for the Clean Water Act 303(d) Program

On September 20, the EPA announced the *2022 - 2032 Vision for the Clean Water Act Section 303(d) Program* ("2022 Vision"). Released as the Agency celebrated the 50th Anniversary of the enactment of the Clean Water Act, the EPA stated that their plan outlines a vision for continued progress in protecting and improving the Nation's water resources. It was designed to help states, territories, tribes, and EPA leverage partnerships and limited resources, and encourage the development of flexible, innovative solutions to meeting difficult and emerging water quality challenges. If you have any questions, please reach out to Jared Voskuhl.

SWRCB B&C&B Workshop on Inland Nutrients Management Available

The State Water Board has released the recording of its first workshop in several years on their forthcoming "Biostimulation, Cyanotoxins, and Biological Condition Provisions" (B&C&B), for inland water bodies covered such as wadeable streams, lakes, rivers, and estuaries. While SWRCB staff shared they do not expect to issue new draft regulations for another 12 to 24 months, they stated they held the meeting to discuss and review the science for forthcoming statewide standards, as the staff who were working on the toxicity provisions have now pivoted to pursuing these policy changes over the next couple of years.

As we previously reported, during the July 14 workshop SWRCB staff noted their 4 distinct project goals are to: (1) Adopt numeric or narrative water quality objectives for biostimulation, nutrients and other biostimulatory substances, and cyanotoxins, (2) Normalize and expand the use of biological condition assessment methods and scoring tools for assessing benthic macroinvertebrate and algae biological integrity in wadeable streams, (3) Adopt a program of implementation to achieve the biostimulation, nutrient, and cyanotoxins water quality objectives, and to improve biological conditions and maintain water quality in streams with healthy biological communities, (4) establish a new beneficial use or amend an existing beneficial use to encompass dogs and other domestic animals using waterbodies to ensure protection from cyanotoxins and other pollutants.

The SWRCB also has provided supplemental presentations on the B&C&B program webpage under the "Recorded Webinars" section on the right hand side of the page, which are based on the scientific research conducted by Southern California Coastal Water Research Project (SCCWRP). Please reach out to Jared Voskuhl with questions about this workshop or briefings with SWRCB members in October about inland nutrient management policy.

SWRCB Cerio Study Update

On October 13, SCCWRP notified stakeholders in the *c. dubia study* that the three rounds of split sample testing for Phase 1 of the cerio study has been completed and labs had until October 18 to submit data. SCCWRP is planning a public meeting in December to discuss the results and findings from Phase 1 and potential next steps for the optimization work in Phase 2 of the study during the winter of 2023. Overall, SCCWRP reported the study went well and that most labs completed all three rounds. However, four of the labs reported issues (including samples lost in transit, culture crash) preventing them to start or complete at least one round as instructed. Once SCCWRP completes QA evaluation of the data submitted, they will commence data analyses (i.e., summary statistics and other statistical analyses) for water chemistry, reproduction, and survival data. SCCWRP is planning to meet with the Expert Science Panel in a series of closed sessions over November to receive and execute their recommendations for data analyses. SCCWRP plans to report back after these meetings via email to the Stakeholder Advisory Group, and then will schedule a meeting in December before the holidays to present on the data, key analyses, findings, and recommended next steps. Please contact Jared Voskuhl if you have any questions or feedback on these developments.

OPC Microplastics Study Update

On October 13 and 14, CASA and SCCWRP hosted full-scale study kickoff meetings for agencies interested in participating and sampling in the OPC's wastewater treatment removal effectiveness study over the next several months. SCCWRP's presentation is available here, and if your agency is interested in further details about the project, its development, or the add-on studies for comparing sampling and analytical methods, please reach out to Jared Voskuhl.

Draft NOAA Report on Microfiber Pollution

On September 15, a draft Report on Microfiber Pollution was released from the Interagency Marine Debris Coordinating Committee, NOAA's Marine Debris Program, and EPA's Trash Free Waters Program. This report provides Congress with an overview of the microfiber pollution issue, while also outlining a path forward for federal agencies, in partnership with other

stakeholders, to address this problem. If you have any questions on this, please reach out to Jared Voskuhl.

SWRCB & CWEA Operator in Training Survey

On November 1, CWEA has launched an operator survey developed in conjunction with the SWRCB by members of a workgroup focused on CA Operator Certification challenges. The purpose of this survey is to collect your feedback on the impacts of the Wastewater Operator in Training program upon the clean water community, as well as overall perception of its purpose, in order to collect preliminary information to inform CWEA's work with the SWRCB on its future. The survey will take approximately 10-15 minutes to complete and closes on Tuesday November 22 before Thanksgiving. We encourage you to share this survey with an operations superintendent at your agency, and if you have questions about completing it, you may contact Norah Duffy for additional assistance.

Cross-Connection Control Policy Handbook SWRCB Hearing Set for Dec. 5

On October 20, the State Water Board announced a public hearing on the Cross-Connection Control Policy Handbook on December 5. This Policy Handbook is being developed in response to the legislative charge to adopt standards for backflow protection and cross-connection control. The most recent draft of the Handbook from 2021 is available here. On November 2, the SWRCB will release the new draft of the Cross-Connection Control Policy Handbook, on which comments will be due on December 9. The Notice of Public Hearing can be found here. If you would like more information, please contact Jennifer West with WateReuse California.

SWRCB Agenda Roundup

Here are recent State Water Board agendas for their meetings on September 7, September 20, October 3, and October 18. The Executive Director reports are available for September and October, and they feature a link to the SWRCB's recently updated statewide and regional policies calendar.

BIOSOLIDS

ECOS Announces Assessment of State Environmental Agency Efforts on PFAS in Biosolids

On October 24, the Environmental Council of the States (ECOS) distributed a press release detailing the assessment that they are undertaking to evaluate different states' actions and efforts on PFAS. The survey delves into each state's legislative and regulatory landscape, monitoring and treatment processes, testing and analysis protocols, and risk communication needs as they pertain to this challenging issue. ECOS will compile a report of its findings that will be made available later this fall. Recently, the Interstate Technology & Regulatory Council, a project of ECOS, released a Biosolids and PFAS fact sheet, which can be found here. If you have any questions about this assessment, do not hesitate to reach out to Greg Kester for more information.

Inflation Reduction Act Incentives for Biogas Projects

The Inflation Reduction Act (IRA) offers up to 40% of a biogas project's costs as a tax credit, or as cash payment if tax exempt, for biomass (including organic waste) to energy projects. This new assistance could support SB 1383 implementation and an array of organic waste to energy

projects. In order to qualify the project must begin by December 31, 2024, comply with Build America, Buy American provisions, have an apprenticeship program in place, and create new jobs. There is a sliding scale based upon timing compliance of large-scale projects, but projects less than 1 MW may qualify for the entire credit. The Internal Revenue Service is seeking public comments on program implementation by November 4. A fact sheet is available here. If you would like to submit comments or have any questions, please reach out to Greg Kester.

EPA Awards $1 Million for COVID-19 Research on Wastewater Systems

On October 19, the U.S. Environmental Protection Agency (EPA) announced $1 Million in research grant funding to the University of Illinois Urbana-Champaign to improve wastewater monitoring to rapidly detect the emergence and spread of infectious disease in the current COVID-19 pandemic, and to detect other pathogens that could cause future pandemics. Using funding from this grant, researchers from the University of Illinois Urbana-Champaign plan to develop a system to rank locations where wastewater monitoring should take place to detect disease-causing pathogens. The research will focus on improving the accuracy of predictions using an integrated analysis of data including weather, human mobility, health care, infrastructure, population density, socio-demographics and information from the current COVID-19 pandemic. Results from the project are expected to include a transmission forecasting model for wastewater monitoring, a tested system to identify optimal monitoring sites, and a secure platform for data storage and analysis to provide actionable wastewater monitoring information to public health officials for pandemic management. If you would like to learn more information about the research grant recipient, you can find that information here. If you have any questions about this, please reach out to Greg Kester.

Northwest Biosolids Virtual Webinar on Risk Assessment and PFAS

Northwest Biosolids is hosting a virtual course called, "Framing Risk Assessment in the Era of PFAS" by Dr. Sally Brown. This three-day event over November 8 – 10 will take place from 11:00 – 12:00 PM via zoom. The course will these forever chemicals and their impacts on biosolids. This three-part series will go over the basics of risk assessment including an analysis of different pathways for contaminants to cause harm. The next section will dive deep into PFAS including their structure, their history, their presence in the environment, and their behavior in biosolids. For the final class, they will be going over the different ways to communicate what the science says- to regulators, stakeholders, people within your division, and even the general public. If you are interested in registering for this event, you can find more information here. If you have any questions, please reach out to Greg Kester.

CWEA & CASA Webinar: Wastewater Based Surveillance

On October 5, CASA and CWEA hosted a webinar titled, *Wastewater Based Surveillance – An update on its use and variant tracking.* At this free event, CASA provided updates to the wastewater community on recent developments in wastewater-based surveillance (WBS) for COVID and its variants. Presenters included the California Department of Public Health, who discussed their program and engagement with WBS, Professor Al Boehm (Stanford University) who provided an update on her ongoing surveillance work and focus on variants, and Noako Munakata (LACSD) who discussed the LACSD's work with WBS and future plans. If you have any questions about this event or if you would like to hear more about what was presented, please reach out to Greg Kester.

California Bioresources Alliance 2022 Symposium

On October 3, the registration for the California Bioresources Alliance 2022 Symposium opened. This event will be virtual, and it will be held on November 9 and November 10. To find out more information about the event, you can go to the event site here. To register, follow the link available here. If you have any questions, please reach out to Greg Kester.

From Sewage Sludge, to Biosolids: Article Posted from W4170 Members

On September 14, the article *From Sewage Sludge, to Biosolids*, written by Kristen Coyne was published. If you have any questions about this CSA News Biosolids story, please reach out to Greg Kester.

WEF 2023 Residuals and Biosolids Conference

On August 30, the Water Environment Federation (WEF) announced that the Residuals and Biosolids Conference 2023 will be held on May 16 – 19, 2023, in Charlotte, NC. If you have any questions, please reach out to Greg Kester.

CMUA Holds Meeting on Grid Reliability: Next Steps

On September 20, CMUA hosted a meeting where regulatory committees, legislative committees, and heads of utilities were called to discuss the recent Flex Alert and the Governor's response to the heat wave. During the final check in for the Flex Alert, CEC, CAISO, and the Governor's office acknowledged that there are opportunities to improve processes and programs moving forward. CASA, NCPA, SCPPA, and other organizations were in attendance and commented on the lack of consistent communication from the Governor's office. CMUA has taken lead on gathering the feedback from all utilities and relevant stakeholders for how to improve grid reliability and create a better system to tackle Flex Alerts in the future. If you have any questions, please reach out to Greg Kester.

Lego Project to Create a Lego Set showcasing Sanitation Agencies

On September 11, a Lego product idea titled, *SEWER HEROES: FIGHTING THE FATBERG,* was created that aims to turn the spotlight on the water & wastewater sectors. Additionally, this project aims to educate on what not to flush, and the impact that fats, oils, and grease (FOG) has on our sewer infrastructure. This project has received wide support and hit the 10,000-vote threshold and has entered the next stage in the process. Now this project is going to be reviewed by Lego, and we will find out if they are going to move forward and manufacture this Lego set. If you would like to support this project, or find out more information, please see the following link. If you have any other questions, please reach out to Spencer Saks.

National Biosolids Data Released

On September 28, a press release for the National Biosolids Data Project was distributed, which provided more detail on how biosolids were managed across the United States in 2018. There is an abundance of information provided by this resource. Contributors to this research include Ned Beecher (formerly of NEBRA), Juliana Beeche, Maile Lono-Batura (WEF), Janine Burke-Wells (NEBRA), Nora Goldstein (BioCycle), and CASA's own Greg Kester. Attached is a Press Release on it from NEBRA. If you have any questions about the project or the data made available, please reach out to Greg Kester.

AIR

CASA ACE Workgroup Comment Letter on the Proposed Advanced Clean Fleet Regulations
On Oct. 18, CASA distributed our final comment letter on the Proposed Advanced Clean Fleet Regulations. CASA's main focus in the letter is to maintain all beneficial uses of biogas, including as a transportation fuel for our medium- and heavy-duty vehicles, while remaining compliant with the Heavy-Duty Omnibus Regulation. In addition to CASA's comment letter, we have also signed onto a coalition letter, spearheaded by ACWA, that focused on the need for a definition for "commercially available". CASA has also released our markups to the draft requirements for your review. If you have any questions, please reach out to Sarah Deslauriers.

Advanced Clean Vehicles Regulation Updates
The CASA's Air, Climate, and Energy workgroup has been focused on the Proposed Advanced Clean Fleets Regulation, specifically the State and Local Government Agency Fleet Requirements, which applies to any state or local government agency with jurisdiction in California that owns, leases, or operates a vehicle with manufacturer's gross vehicle weight rating (GVWR) greater than 8,500 lbs. The latest version was released August 30th. The ACE Workgroup has been reviewing the language, with focus on Exemptions and Extensions, as well as the Initial Statement of Reasons (ISOR).

The wastewater sector does not have CARB-approved options for various heavy-duty vehicle types we need, nor is there a timeframe for when they will be available. The definition of near-zero emission vehicle (NZEV) still excludes low carbon, low NOx options that could run on our wastewater-derived biogas; however, the "ZEV Unavailability" exemption allows for use of internal combustion engines if there are no CARB-approved ZEV or NZEV options that meet our needs and they meet the latest Omnibus Regulation (for NOx, PM, CO limits). This could provide time to work with CARB on technology demonstrations to determine if ZEV or NZEV options could even support the operations we require to maintain essential public services. Members of the ACE workgroup, along with CASA staff have been engaged with CARB Board Members to direct staff to include language allowing time for successful demonstration of clean technology and to maintain other uses of biogas for resilience purposes.

CASA has provided comment on the ISOR. The ISOR states that wastewater biogas should be "directed towards harder to decarbonize sectors than transportation, or as a feedstock for energy and materials" and that "CPUC's decision to implement SB 1440 essentially directs RNG away from transportation." Air Districts disagree with the former statement, and we have had discussions with CPUC and CEC about their intent. If you have any questions, please reach out to Sarah Deslauriers.

Report out from CARB Public Board Meeting on October 27
On October 27, the California Air Resources Board held their hearing on the Advanced Clean Fleet Regulations. CASA and many CASA members were able to testify, and we appreciate all of those who were able to provide testimony. In response to our previous comments and letters, the Board responded to our requests and directed staff to provide flexibility in the regulation (exemptions and/or extensions) for "wastewater and sanitation agencies" to implement SB 1383 mandates and continue various uses of biogas until other options are available. They added that staff need to help establish the market for other biogas uses before any are removed. While this is a great step forward, this begins the next step of collaborating with Board staff on developing language that provides flexibility in the regulation.

The timeline for the next draft of the Advanced Clean Fleet Regulations will likely be released in Spring of 2023, a 15-day comment period, and then adoption will follow likely in early summer. If you would like to view the talking points that CASA circulated prior to the hearing, you can view them here. A brief recap of the comments made by the Board members is available below.

Chair Randolph opened the Board discussion by highlighting key concerns/areas she believed the Board would need to address. This was mainly focusing flexibility for SB 1383 implementation and defining commercial availability. Vice Chair Berg expressed support for incorporating flexibility in implementing SB 1383 as part of the regulation. She also stated support for "wastewater and sanitation agencies" to continue using their biogas until an additional market is developed. She also directed staff to support the development of that additional market. Until then, existing uses, including use as a low carbon transportation fuel, should continue. Dr. Balmes expressed support for formally defining "commercially available" and suggested an advisory committee be established consisting of various sectors to develop it. He also agreed with incorporating flexibility for SB 1383 implementation and continued use of organic waste-derived methane. Dr. Balmes stated that one year extension for infrastructure is insufficient, and they would support extending that. Dr. Sperling stated he does not believe that infrastructure (and vehicles) will be available per the timeline of the regulation nor per CPUC's estimate. He also commented that public charging will be an issue. He also emphasized concern about SB 1383 implementation, highlighting wastewater and sanitation's role and the fact that there would be much more biogas produced. He stated that the biogas Sanitation Agencies produce has three uses, on-site energy/heat, pipeline injection, and transportation fuel to avoid flaring. He acknowledged the limitations on each use and reminded staff that pipelines don't reach all facilities. He agreed with our request for an extension and thinks it should be indefinite (not just 10 years) since our uses are good/low carbon and support essential public services. Other Board Members have expressed support for these concerns, and they also mentioned other smaller issues that could influence wastewater agencies. The Chair mentioned in her closing statements that the Board and staff are looking forward to continuing this discussion and collaboration in workshops and in future meetings. If you have any questions about this meeting, or its effect on the Advanced Clean Fleet Regulations, please reach out to Sarah Deslauriers.

USEPA Office of Water Releases Climate Adaption Implementation Plan

The U.S. Environmental Protection Agency's Office of Water has released its Climate Adaption Implementation Plan 2022-2026 as part of the Administration's whole-of-government approach to confronting climate change. The plan builds upon USEPA's FY2022-204 Strategic Plan and 2021 Climate Adaption Action Plan, identifying specific priority actions for the Office of Water.

The plan is intended to guide the Office's activities to support states, communities, and the water sector adapt to a changing climate by utilizing Bipartisan Infrastructure Law funding, prioritizing nature-based solutions, and considering future climate conditions within the Clean Water Act permitting and water quality programs. As stated in the document, the plan "represents a course shift toward bold and coordinated action to embed climate adaptation and resilience across Office of Water's financial assistance programs, policies, regulatory actions, training, and outreach. The priority actions within this plan will help ensure our programs continue to deliver services essential to supporting the adaptive capacity

of communities." Improving the climate resilience of America's Water Infrastructure, protecting America's waters from the impacts of a changing climate, and advancing adaptive capacity of the water sector were some of the priorities given in this plan. If you have any questions or would like to find more information, please reach out to Sarah Sapirstein.

CALENDAR

Nov. 1	Collection Systems Workgroup Meeting
Nov. 1	Deadline to Apply for 2021-22 Infrastructure Financing
Nov. 3	California Financing Coordinating Committee 2022 Fall Funding Fair
Nov. 6	US EPA PFAS CERCLA Designation Comments Due
Nov. 8-10	Northwest Biosolids PFAS Course by Dr. Sally Brown
Nov. 9	Collection Systems Workgroup Meeting
Nov. 9	California Bioresources Alliance 2022 Symposium (virtual)
Nov. 10	California Bioresources Alliance 2022 Symposium (virtual)

Nov. 14	SWRCB Workshop on SSS WDR Reissuance
Nov. 15	Air Quality, Climate Change, and Energy Workgroup Meeting
Nov. 15	SWRCB Board Meeting (DWR Reports on Water Use Efficiency)
Nov. 16-18	NACWA Law Conference (Tampa)
Nov. 16	Collection Systems Workgroup Meeting
Nov. 17	Regulatory Workgroup Meeting
Nov. 22	SWRCB & CWEA Operator in Training Survey Deadline
Dec. 1	CWQMC Meeting
Dec. 2	SCCWRP Commission Meeting

Dec. 5	SWRCB Public Hearing on the Cross-Connection Control Policy Handbook
Dec. 6	SWRCB Meeting (SSS WDR Reissuance Adoption)
Dec. 8	Regulatory Workgroup Holiday Party
Dec. 20	SWRCB Meeting (2023 Board Strategic Priorities)
Jan. 25 – 27	CASA Winter Conference (Palm Springs)

Visit our website

CASA | 925 L Street, Suite 200, Sacramento, CA 95814

chuckweir@sbcglobal.net

From: CASA <cmackelvie@casaweb.org>
Sent: Wednesday, November 2, 2022 4:15 AM
To: chuckweir@sbcglobal.net
Subject: Your Water and Wastewater Updates for November 2

CASA News

Winter Conference Registration Now Open

The 2023 Winter Conference is just a few months away and registration is now open! Discover what water professionals need to plan for in 2023 by hearing from experts on legislative and regulatory developments, automation and cybersecurity, drought, energy conservation and more. The CASA Winter Conference provides an opportunity to gather, network, share ideas, and discover solutions to complex challenges facing the wastewater community. Join us in Palm Springs January 25 - 27, 2023!

Register for the conference.

Save the Date: Citizens Academy Webinar

Join us on Wednesday, December 14, from 11:00am to 12:00pm for a webinar on Citizen Academies! Hear from OC San, Napa San and Central San as they share lessons learned, planning, materials, budget and all the tools you need to build a successful program! Keep an eye out for more details in upcoming editions of CASA Connects.

Federal Update

CASA Submits Comment Letter to EPA on PFAS CERCLA Designation

In response to the U.S. Environmental Protection Agency (USEPA) request for public comment on the proposed Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances, CASA submitted a comment letter last week. USEPA published the proposed rulemaking in the Federal Register in September. The public comment period deadline is November 7. In the letter, CASA acknowledges the importance of upholding water quality and safety standards and emphasizes this is a core responsibility of CASA members. However, the letter states that without specific language clarifying certain water and wastewater public utility activities are excluded, the designation would impose unreasonable liabilities and economic burdens on local public agencies and their ratepayers.

Read More

Member News

EMWD Honored for Excellence in Financial Reporting

Congratulations to Eastern Municipal Water District (EMWD), which has been recognized for Excellence in Financial Reporting by the Government Finance Officers Association (GFOA), marking the 18th consecutive year that EMWD has earned the distinction. “EMWD is proud to again be recognized by the GFOA, and we thank them for this important honor,” EMWD Board President Phil Paule said. “We are committed to being trusted stewards of our rate-payers funds, and we are proud to do so in a transparent manner.” See the full press release here.

The State of OC San

The Orange County Sanitation District (OC San) is hosting a virtual State of OC San event on **Tuesday, November 15, 2022, at 9 a.m.** During the event, General Manager, Jim Herberg, and Board Chairman, Chad Wanke, will provide an update on OC San, their accomplishments, and the future direction of the agency. An optional virtual Plant tour guided by Rob Thompson, OC San Assistant General Manager will take place immediately following the State of OC San from 10 a.m. to 11 a.m. Be sure to register today!

In Case You Missed It

CASA Celebrates Water Professionals Week

CASA was thrilled to celebrate the sixth annual California Water Professionals Appreciation Week last month! We are thankful for all the men and women (YOU) who continue to perform essential work to protect public health and the environment, 24/7, 365. This year, we teamed up with ACWA and CWEA to create a few video clips to highlight the value of water and wastewater services and the important role that water professionals play in providing these services. Check out the videos below and please feel free to share on

your website and social media accounts. Community Education, Engineering and Operations, Finance, Leadership and Water Quality.

Recording Now Available for Clean Water Act at 50 Webinar

The Clean Water Act and Porter-Cologne provided California's water professionals and regulators the support and funding needed to make monumental clean water achievements. Rivers, bays, and beaches across the Golden State are cleaner than ever and enjoyed by millions of residents and tourists. Check out the webinar which was recorded live on October 5, 2022, featuring a panel of experts discussing what's next for California's clean water laws.

Regulatory Update

SWRCB & CWEA Operator in Training Survey

Yesterday, CWEA launched an operator survey developed in conjunction with the SWRCB by members of a workgroup focused on CA Operator Certification challenges. The purpose of this survey is to collect your feedback on the impacts of the Wastewater Operator in Training program upon the clean water community, as well as overall perception of its purpose, in order to collect preliminary information to inform CWEA's work with the SWRCB on its future. The survey will take approximately 10-15 minutes to complete and closes on Tuesday November 22 before Thanksgiving. We encourage you to share this survey with an operations superintendent at your agency, and if you have questions about completing it, you may contact Norah Duffy for additional assistance.

Sign up for CASA's Regulatory Updates

CASA's Regulatory Workgroup regularly puts together a comprehensive e-newsletter to share all regulatory updates on key issues and workgroup initiatives with the CASA membership. If you are interested in receiving these regulatory updates, please contact Jared Voskuhl. The latest edition is available here.

Professional Development Opportunity

2023 Water & Wastewater Leadership Center Applications Now Being Accepted!

With the belief that exceptional leadership is essential to the continued success of the water sector, the Association of Metropolitan Water Agencies, the American Water Works Association, the National Association of Clean Water Agencies and the Water Environment Federation – in collaboration with the National Association of Water Companies – are pleased to continue their partnership to ensure that the Leadership Center arms utility executives with the management and leadership skills they need to excel. Celebrating over two decades of executive education designed specifically for water and wastewater professionals, the 2023 Water & Wastewater Leadership Center (WWLC) will convene at the University of North Carolina – Chapel Hill March 12-23, 2023. As always, the Center offers

exceptional coursework taught by an unequaled UNC faculty, all tailored specifically for the water sector.

Applications are now being accepted for the class of 2023 – and must be received by **December 9, 2022.**

Upcoming Events

BAYWORK Virtual Training Buffet

Join BAYWORK on November 8, 9, and 10, from 10:00am to 3:00pm via Zoom for a variety of workshops on topics ranging from Nutrient Optimization to Creating Career Pathways and Next-Gen Workforce Development. All workshops are free! Check out the full suite of classes and register here.

California Financing Coordinating Committee 2022 Fall Funding Fairs

The California Financing Coordinating Committee (CFCC) is pleased to invite you to attend a free virtual funding fair on November 3, 2022 (see flyer for more information). The funding fair will provide the opportunity to learn more about available grant, loan, and bond financing options for infrastructure projects from federal, state, and local agencies.

Representatives from water industry professionals, public works and local governments are encouraged to attend. For more information about CFCC, please visit the website at www.cfcc.ca.gov.

H_2OSecCon

Registration is now open for the H_2OSecCon: Security for the Water Sector. Covering three afternoons, this one-of-a-kind virtual event will help water utilities understand physical and cyber threats and boost security. H2OSecCon will feature critical recommendations, industry subject matter experts, and resources that utilities need to protect their consumers, assets, and the environment. Register today! The event is a 3-day event November 15-17.

Careers and Opportunities

Visit CASA's Job Board.

CASA represents more than 125 local public agencies engaged in the collection, treatment and recycling of Wastewater and biosolids to protect public health and the environment. Our mission is to provide trusted information and advocacy on behalf of California clean water agencies, and to be a leader in sustainability and utilization of renewable resources.

Visit Our Website

CASA | 925 L Street, Suite 200, Sacramento, CA 95814

chuckweir@sbcglobal.net

From: Bay Area Clean Water Agencies <noreply@bacwa.org>
Sent: Monday, November 7, 2022 8:59 AM
To: Charles
Subject: BACWA Bulletin - November 2022

Table of Contents

BACWA Bulletin - November 2022

Meetings

- O&M Committee Joint Meeting with BACWWE - Thurs 11/10
- Collection System Committee Meeting - Thurs 11/10
- Biosolids Committee Meeting @ BABC - Mon 11/14
- Lab Committee TNI Training - Tues 11/15
- Recycled Water Committee Meeting - Tues 11/15
- Executive Board - Fri 11/18
- AIR Committee Meeting - Wed 11/30
- BAPPG - wed 12/7
- Visit the Calendar for details

Most BACWA Committee meetings continue to be held on Zoom.

Upcoming Events

- BAYWORK Virtual Training Buffet - 11/8 to 11/10, virtual
- 2022 California Bioresources Alliance Symposium - 11/9 - 11/10, virtual
- State Water Board staff workshop on SSS-WDR - 11/14, virtual

View previous BACWA Bulletins

Help Chart the Future of Education for Wastewater Professionals on November 10th

On November 10, the Bay Area Consortium for Water/Wastewater Education (**BACWWE**) will join the BACWA O&M Infoshare meeting to review BACCWE's accomplishments and discuss how BACWWE can best support a pipeline of skilled candidates into the water and wastewater industry. We welcome your ideas for how to re-prioritize the focus of the program, and would love for you and your organization to be part of the discussion.

For in-person participants, the event will run from 10 am - 1 pm and will include a tour of the San Jose – Santa Clara Regional Wastewater Facility. A Zoom option

will also be available for remote participation in the discussion (10 am – 12 pm). **Register here** by TODAY Monday, November 7th. For more information, contact **Jordan Damerel**.

SF Environment Recognized for their PFAS Pollution Prevention Efforts

In October, the Regional Water Board awarded the 2022 **Dr. Teng-Chung Wu Pollution Prevention Award** to SF Environment. The award is for their PFAS-related work over the last few years, including legislation banning PFAS in takeout food containers, setting standards for compostables, working to eliminate PFAS from fire-fighting foam, setting City purchasing standards for PFAS-free carpet, and more. (see **RWQCB Press Release**, **RWQCB staff slides**, or go to 22:33 in **this video**). Congratulations, SF Environment!

Regional Biosolids Information Sharing Session set for Nov. 14th

On Monday, November 14th at 11 am, the **Bay Area Biosolids Coalition** will use part of their regular meeting to provide time for regional information sharing on biosolids. This is an opportunity for all agencies in our region, ***whether or not they are BAB Coalition members***, to discuss the status of their biosolids programs, biosolids master planning efforts, or other developing biosolids initiatives. BACWA member agencies may participate by MS Teams or in-person at Carollo's Walnut Creek office. For meeting details, contact Carollo's **Katy Solem**.

Nutrient Monitoring Data due to HDR by Nov. 23rd

Preparation of the 2023 Group Annual Report has begun! Data for Oct 2021 - Sep 2022 must be uploaded into the **template** and submitted to HDR by November 23rd. Previous Group Annual Reports are available **here**.

State Water Board will consider adoption of SSS-WDR on December 6th

On October 28th, the State Water Board released a revised draft version of the General Order for Sanitary Sewer Systems **SSS-WDR** . The State Water Board will host a virtual public workshop on Monday, November 14th (**register here**), and the order will be considered for adoption at the December 6th State Water Board meeting. Many of BACWA key's **comments** on the January 2022 draft version were addressed, but BACWA is continuing to work with CASA and others to address remaining concerns.

To learn more, attend the November 10th BACWA Collection Systems Committee meeting or contact **Mary Cousins.**

Nutrients Update

BACWA is continuing to respond to the August 2022 harmful algae bloom of *Heterosigma akashiwo* in San Francisco Bay. Recent updates and resources include:

- **Internal Coordination.** The Nutrient Strategy Team will begin convening monthly to direct preparation of nutrient reduction information needed for the 3rd Nutrient Watershed Permit.
- **Stakeholder Engagement.** In October, BACWA's Executive Director Lorien Fono joined with staff from the SFPUC, Regional Water Board, SFEI, and Baykeeper to provide an update on the algae bloom and its impact on wastewater capital planning to the San Francisco Board of Supervisors Land Use and Transportation Committee. Meeting materials and video are available **here**.
- **External Communications.** BACWA is preparing additional materials for our website (coming soon!), and is convening a steering group of communications practitioners to direct additional public outreach.

SFEI issues Updated *Pulse of the Bay*, RMP Annual Meeting materials, and Wastewater Bisphenols Report

The **Regional Monitoring Program** has issued its biennial update of ***The Pulse of the Bay***, a report about water quality in the Bay accessible to water quality managers, decision-makers, scientists, and the public. The 2022 theme is "50 Years After the Clean Water Act." You can access the PDF **here** or request a hard copy **here.**

- The **Regional Monitoring Program Annual Meeting** was held in early October. The event included presentations on **PFAS in San Francisco Bay**, **PCBs in stormwater**, **sediment transport**, and more. Videos and slides are available **here**.
- SFEI has issued a report on **Bisphenols in San Francisco Bay Wastewater, Stormwater, and Margin Sediment**, which includes results for wastewater effluent from six BACWA members. This new report greatly expands the available data set for wastewater; a study from 2008 sampled just one facility in the Bay Area. Effluent concentrations were similar to those reported by other facilities in the US and elsewhere.

Mercury and PCBs Watershed Permit Tentative Order released for public comment

In October, Regional Water Board staff issued the **Tentative Order Mercury and PCBs Watershed Permit** for public comment. BACWA plans to submit a comment letter addressing minor issues by the November 14th deadline. The Tentative Order does not substantively differ from the 2017 Permit, except that PCB congener monitoring frequencies have been reduced for most dischargers. Questions or concerns? Contact **Mary Cousins**

CWEA Award Nominations are Due November 18th!

Nominate a BACWA Member Agency for a CWEA award in categories such as Collection Systems, Community Engagement, Laboratory, Treatment, O&M, and Safety. The deadline is November 18th for the San Francisco Bay section.

BCDC to Develop Shoreline Adaptation Planning Guidelines

The Bay Conservation and Development Commission (BCDC) has received $5 million in funding from the Ocean Protection Council and State Coastal Conservancy to advance implementation of the **Bay Adapt Joint Platform**. The funding will allow BCDC to develop regional sea level rise adaptation planning guidelines, and to assist jurisdictions with implementation of adaptation plans. More information is available **here**, and you can subscribe to updates **here**. BACWA endorsed the Bay Adapt Joint Platform in January 2022.

COVID-19 Updates

BACWA continues to hold nearly all Executive Board and Committee meetings by videoconference. Regular Executive Board meetings will resume in-person when required by State law regarding public meetings. Committee meetings will resume in-person after meeting venues are open, which is not expected until later in 2022. Questions and concerns can be directed toward Executive Director **Lorien Fono**.

Member News

Send in *updates from your agency to post here.*

Congratulations to BACWA Executive Board chair Amit Mutsuddy on his appointment as EBMUD's next Director of Wastewater! His appointment is effective December 5th.

What's new in BACWA's Committees

AIR Committee

The next committee meeting is scheduled for Wednesday, November 30. CASA is conducting preliminary work on a **planned two-step process** for characterizing emissions of air toxics from POTWs, including identification of study participants and estimated costs. CASA also recently announced good news from CARB's Oct 27th Public Board Hearing related to the proposed **Advanced Clean Fleet Regulations**. CARB directed its staff to provide flexibility in the regulation (exemptions and/or extensions) for "wastewater and sanitation agencies" to implement SB 1383 mandates and continue various uses of biogas until other options are available. CARB staff were directed to help establish the market for other biogas uses before any are removed. For additional details on this development, contact **Sarah Deslauriers.**

Asset Management Committee

The November 3rd featured a presentation from Black & Veatch on the San José-Santa Clara Regional Wastewater Facility Yard Piping Project, which included condition assessment, design, and rehabilitation phases.

BAPPG

Castro Valley Sanitation District's award-winning "Three P's" outreach campaign was the focus of the **October meeting**. The next meeting is scheduled for Wednesday, December 7th and will include a discussion about outreach strategies in the age of social media.

Collections Systems Committee

The next meeting scheduled for Thursday, November 10th will feature a presentation on manhole sealants from Truckee Sanitary District, and group discussion on the revised draft SSS-WDR that the State Water Board issued in late October.

Laboratory Committee

The **October meeting** featured two presentations from Diane Lawver: one on best

practices for infrared thermometers ("IR Guns") and one on California ELAP Third-Party Assessment Findings. For a video of the presentation, contact **Mary**. The next regular meeting is scheduled for December 13th; the next **TNI monthly training session** will be held November 15th at 10 AM.

Permits Committee

The **October meeting** included updates on nutrients, implementation of the statewide toxicity provisions, and the Tentative Order of the Mercury & PCBs watershed permit (see above). The next regular meeting is scheduled for Tuesday, December 13th and will include a virtual holiday social.

Recycled Water Committee

The next meeting is scheduled for Tuesday, November 15th. It will include a presentation on the newest draft version of the State Water Board's **Cross-Connection Control Policy Handbook,** which will replace Title 17. There will be a State Water Board hearing on the Cross-Connection Control Policy Handbook on December 5th, and written comments are due December 9th (see **public notice**).

Upcoming Events

November 8th - 10th: BAYWORK Virtual Training Buffet

All you can learn, for FREE!

BAYWORK is offering sessions on a variety of topics -- from aquatic chemistry to microplastics to public agency administration, there's something for anyone interested in learning more about the water and wastewater professions.

November 9th and 10th: 2022 California Bioresources Alliance Symposium

Bioresources Technology, Collaboration, & investment: Managing the Transition to Local Circular Economies in California

Join your colleagues in the field of bioresources in California: manure, food waste, biosolids, woody waste, green waste, and ag waste – to discuss the latest on

feedstocks, siting and treatment, and marketing, plus new updates on SB 1383 requirements and finance options!
The symposium will be virtual again this year. Attendance is free. For questions, please contact **Lauren Fondahl**

November 14th, 9 am - 1:30 pm: State Water Board workshop on the SSS-WDR

The purpose of this virtual public workshop is to provide interested parties an overview of the proposed General Order, including proposed revisions in response to public comments received during the January through April 2022 public comment period. **Register here** to participate.

Our mailing address is:
BACWA Bay Area Clean Water Agencies
PO Box 24055, MS 702
Oakland, CA 94623

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

ITEM NO. 16 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 billed LAVWMA 544 hours. The level of effort for FYE22 is normal, considering the number of capital projects to complete over the next two years. For the fiscal year ending June 30, 2023 the General Manager has billed LAVWMA approximately 175 hours, which is also normal due to the number of capital projects.

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. The "SmartCover" lids have already prevented several illegal spills sue to early warning to DSRSD staff. Please refer to additional information on asses management in the Quarterly Report of Operations, Agenda Item No. 11.

2. Records Management Project.
The project itself has been completed. DSRSD has hired Sheree Davis as a new Administrative Assistant II in the Administrative Services Department, reporting to Carol Atwood. Ms. Davis will be assisting with LAVWMA, which is great news. Ms. Davis will get caught up on filing over the coming days. Please join me in welcoming Sheree Davis.

3. Wastewater Agency Response to COVID-19
Member Agency staff continue to follow all current guidelines issued by the Governor and Alameda County. As noted for this meeting, DSRSD has returned to Teleconference meetings until September 1, 2022. Assuming there are no further outbreaks, the February 15, 2023 Board meeting will be held at DSRSD.

4. FYE21 Capital Project Planning
Please refer to the Action Item List, **Item No. 16.1** for a status report on all capital projects for FYE23. 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. The Staff Advisory Group (SAG) have reviewed a job description. 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. At this time the use of a professional recruiting firm is not anticipated.

6. PG&E Costs and Max Demand Savings
There is a paragraph in the Quarterly O&M Report, Item No. 11, noting that DSRSD staff is managing the system to avoid Max Demand Charges on one of the Feeders to the pump station. This is a key accomplishment, and should be commended. The billing period from PG&E is published in advance, which allows for operations planning.

7. Letter from SDRMA
Please refer to **Item No. 16.1** October 18, 2022 from LAVWMA's Insurance Carrier, Sanitation District Risk Management Authority (SDRMA). The letter congratulates LAVWMA for having No Paid Property/Liability Claims in 2021-22.

Following is a brief description of major activities since the June 29, 2022 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.
- Drafted August 17, 2022 minutes and sent out for review. Updated based on comments received.
- Prepared items for the November 16, 2022 Board meeting and prepared the packet for distribution. Made updates to website as needed for files and legal requirements.
- Scheduled the November 16, 2022 meeting for a Zoom meeting based on direction from the Board at the August 17, 2022 meeting.

- Worked with DTN Engineers, DSRSD staff, and Total Energies on developing a draft layout for solar panels at the pump station site.
- Worked with DTN Engineers, DSRSD staff, Tom Hendrey, and PG&E staff on the PG&E Electrical Service Reliability Report; made various edits to draft versions of the report.
- 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.
- Continued working with the MCC team to finalize the last remaining programming items. Issued the Notice of Completion on November 14, 2022 with a completion date of October 31, 2022.
- Continued working with DSRSD staff for pipeline inspection project to begin fall 2022.
- Logged into DSRSD system to review and approve invoices and review and respond to emails. Gained access to new accounting system called MUNIS for invoice, purchase orders, etc. approval
- Reviewed, made minor edits, and commented on DSRSD's 1st quarter O&M report.
- Continued reviewing PG&E bills to ensure they are using the proper rate schedule. Maintained all data in a spreadsheet for proper tracking and budget preparation. Noticed possibility of using only one feeder system each billing period. Worked with DSRSD staff to confirm intent of using this approach
- Continued working with HydroScience and DSRSD staff to address comments on 75% plans and technical specs for the SLSS project to HydroScience.
- Researched NPDES permit for standby power requirements.
- Kept SAG members informed on various issues and projects.
- Continued to work with General Counsel to track legislation of interest to LAVWMA and the member agencies.
- 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 continues to follow their lead.
- Met with Treasurer and DSRSD staff to finalize plans for setting up an account with Schwab to invest in treasuries to increase interest return on investments. Signed appropriate documents. Discussed and agreed to appointing Herman Chen as Assistant Treasurer to assist with investments and increase segregation of duties.

- 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.
- Met with new DSRSD Administrative Assistant II Sheree Davis to welcome her to LAVWMA and discuss needs.
- Attended EBDA Managers Advisory Committee (MAC) meetings. Made notes of same and shared with SAG members.
- Prepared and submitted monthly invoices for LAVWMA General Management services.
- Reviewed and approved DSRSD monthly invoices for O&M services.
- Continued working with EBDA and LAVWMA agency staff to address enterococcus and other permit issues.
- Used DocuSign system for Board Resolutions, Agreements, minutes, and other documents.
- Reviewed EBDA, DSRSD, and DERWA agenda packets.
- Reviewed and directed handling of scanned mail sent by DSRSD staff.
- Continued making copies of all files needing filing once the new DSRSD staff person is on board.
- Responded to various emails and phone calls from outside agencies and organizations.

Next Meeting
The next Regular Board meeting is scheduled for February 15, 2023 at the DSRSD Board Room. Note that the Board may have the option for one more Zoom meeting.

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

Attachments
16.a Action Item List
16.b Letter from SDRMA

LAVWMA Action Item List **Month:** **Nov-22**

SAG Task	Responsible Party	Due Date	Status	Completion Date
Items for August 2022 LAVWMA Board Meeting.	SAG	NA	Several items this month. Updates on current capital projects, continuing with remote meetings, FYE22 Audit Report, moving money from LAIF to treasuries to improve return by up to 3% over LAIF, approval of Regional Purified Water Pilot Memorandum of Agreement (MOA) for Phase 2 (Public Outreach and Monitoring of Grant Funding Opportunities), legal and legislative issues, and the GM report.	
Operations Coordination Committee Task	**Responsible Party**	**Due Date**	**Status**	**Completion Date**
FYE21 Replacement Projects: See Items Below	Weir/Delight	Various dates	Refer to information below.	
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 complete. The Notice of Completion with Alameda County will be filed within the next week.	11/30/2022
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. A few areas are being resealed.	6/30/2021
San Leandro Sample Station Design Improvements. Estimated cost $1,000,000 plus engineering costs of $230,000 for a total of $1,230,000	Weir	12/31/2022	Final plans and specs are nearing completion. A meeting with HydroScience and DSRSD staff was held on November 7, 2022 to resolve remaining issues. Lead time on some major items is up to one year.	12/31/2023
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. We have heard nothing from Corrpro in several months. Will likely cancel their contract and have another firm do it. Will return to full system inspection this fiscal year.	6/30/2023
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 progressing.	
Pipeline Inspection. Estimated cost $100,000	TBD	6/30/2021	DSRSD has outlined a plan for an inspection in the Fall time frame. May need to be delayed due to other priorities.	
Smart Detectors on High Maintenance Air/Vac and Air Release Valves. Estimated cost $40,000	Quinlan	6/30/2022	Project is complete for six smart detectors. They have already prevented several spills due to advance notice to DSRSD staff.	6/30/2022
Replace three flow meters at the junction structure. Estimated cost is $250,000.	TBA	6/30/2023	The three flowmeters at the junction structure are at the end of their useful lives and are no longer as accurate as required for reporting purposes. The project will include replacing all three and then determine if further modifications, such as, snorkels, are required for the flow measurement accuracy required. The cost of the project includes the three meters plus installation and testing costs.	
Replace 17 valve actuators at the pump station. Estimated cost is $255,555.	Quinlan	6/30/2023	There are seventeen valves that have electric actuators at the pump station. All of the valves actuators were installed when the pump station was upgraded twenty years ago and they are at the end of their useful lives. The actuators will be replaced with the newest technology and will match the style that are commonly used at DSRSD. The actuators cost approximately $9,000 each and will be installed by DSRSD staff. The total cost includes staff time for the installation.	
PG&E Reliability and Solar/Battery storage. This is a new project and no cost has yet been identified.	Weir	TBD	Recent PG&E outages during the summer have resulted in concern that the same could occur during wet weather and result in unpermitted discharges. The Board also asked about solar/battery systems to offset demand charges and reduce energy costs. DTN Engineers has prepared a draft report recommending a 1.5MW standby generator that would run at least two large pumps for at least 24 hours during a PG&E outage. Not certain that is adequate. Will use unused funds from agreement with Woodard & Curran to do additional flow modeling (recall EBDA "pick a flow") to assist in determining standby power needs. Not yet ready to make recommendations to the Board.	TBD
Other Items				
Wet Weather Issues	Sevilla	10/31/2020	Rainfall in October and November 2022 has not created any problems.	
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	6/30/2023	Gate is in good shape but won't fully close. No date set, perhaps this winter. May be coordinated with replacement of the valve actuators.	
EBDA Enterococcus Issue	Sevilla		No issues at this time.	
YTD O&M Expenses compared to budget	Carson, Weir	Ongoing	No issues at this time.	

SDRMA
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October 18, 2022

Mr. Jerry Pentin
Board Chair
Livermore-Amador Valley Water Management Agency
7051 Dublin Boulevard
Dublin, California 94568-3018

Re: No Paid Property/Liability Claims in 2021-22

Dear Mr. Pentin,

This letter is to formally acknowledge the dedicated efforts of the Livermore-Amador Valley Water Management Agency's Governing Body, management, and staff towards proactive risk management and loss prevention training. Your agency's efforts have resulted in no "paid" property/liability claims for program year 2021-22. A "paid" claim for the purposes of this recognition represents the first payment on an open claim during the prior program year and excludes property claims. This is a great accomplishment!

In addition to this annual recognition, members with no "paid" claims during 2021-22 earned one credit incentive point (CIP), thereby reducing their annual contribution amount.

As SDRMA is dedicated to serving its members and preventing claims, we would appreciate your agency taking a moment and sharing with us what made your District successful in preventing property/liability losses. Our goal is to incorporate your successful ideas and suggestions into our loss prevention programs to benefit all members of SDRMA. Please forward any comments or suggestions to us at memberplus@sdrma.org.

On behalf of the SDRMA Board of Directors and staff, it is my honor to congratulate the Governing Body, management, and staff for their commitment to proactive risk management and loss prevention training.

Sincerely,
Special District Risk Management Authority

Mike Scheafer, President
Board of Directors