

Agenda

May 4, 2020

5:00 P.M.

Sacramento Suburban Water District/Del Paso Manor Water District 2x2 Ad Hoc Committee

Location: Videoconference or Teleconference Only

Note: In accordance with the California Department of Public Health's and the Governor's Executive Orders N-29-20 and N-33-20, the District's boardroom is closed and this meeting will take place solely by videoconference and teleconference. The public is invited to listen, observe, and provide comments during the meeting by either method provided below. The Chairperson will call for public comment on each agenda item at the appropriate time and all votes will be taken by roll call.

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Consent Items

The Committee will be asked to approve all Consent Items at one time without discussion. Consent Items are expected to be routine and non-controversial. If any Committee member, staff or interested person requests that an item be removed from the Consent Items, it will be considered with the Items for Discussion and/or Action.

1. Notes of the April 6, 2020, Sacramento Suburban Water District/Del Paso Manor Water District 2x2 Ad Hoc Committee

Items for Discussion and/or Action

2. Del Paso Manor Water District Meter Recommendation

3. Sacramento Suburban Water District and Del Paso Manor Water District Operating Services Agreement
4. Safety Condition Assessment
5. Groundwater Facility Assessment
6. Del Paso Manor Water District Environmental Compliance Assessment
7. Water Industry Affiliations
8. Training and Mentoring Opportunities
9. Next Meeting Date, Time, and Topics for Discussion
10. Public Comment

Adjournment

Notes

Sacramento Suburban Water District/Del Paso Manor Water District 2x2 Ad Hoc Committee

Monday, April 6, 2020 at 5:00 P.M.

Location:

Teleconference Only at 1-877-873-8018, participant ID #116653

Call to Order

Chair Lenahan called the meeting to order at 5:01 p.m.

Roll Call

Committee Members

via Teleconference: Craig Locke, Robert Wichert, Marissa Burt, and John Lenahan.

SSWD Staff via

Teleconference: General Manager Dan York, Assistant General Manager Mike Huot, Jeff Ott, Heather Hernandez-Fort, and Matt Underwood.

Public Present via

Teleconference: William Eubanks, Rodger Nelson, Michael Clohossey, Paul Olmstead, Ken Ingle, Carol Rose, and Greg Schneider.

Consent Items

1. **Notes of the March 2, 2020, Sacramento Suburban Water District/Del Paso Manor Water District 2x2 Ad Hoc Committee**

Craig Locke (Director Locke) moved to approve Item 1; Robert Wichert (Chair Wichert) seconded. The motion passed by unanimous vote.

AYES:	Locke, Wichert, Burt, and Lenahan.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

Items for Discussion and/or Action

2. **COVID-19 Update**

Sacramento Suburban Water District (SSWD) General Manager Dan York (Mr. York) provided an update to the COVID-19 status.

3. **Collaborative Meter Reading of DPMWD Commercial Meters**

Mr. York presented the staff report.

Director Wichert inquired how SSWD typically handled the meter inspection, installation, and repair process.

Mr. York answered that SSWD staff would generally test the meters and have replacements done through a preferred District contractor. He further noted that the bid rotation for contractors was usually on a 2-year cycle.

Director Wichert inquired how Del Paso Manor Water District (DPMWD) typically handled their meter inspection, installation, and repair process.

Ken Ingle (Mr. Ingle) expressed that depending on the complexity, DPMWD would either replace meters themselves or hire contractors. He further noted that one of the two meters at the AT&T facility was currently in the bid process for replacement.

Discussion ensued regarding the operational status of the meters at the AT&T facility.

Mr. York expressed he would coordinate with Mr. Ingle to discuss DPMWD's large meter status and testing schedule.

Director Burt expressed interested in SSWD's AMR/AMI technology.

Chair Lenahan noted the purpose of the 2x2 Committee meetings were to try to identify how the two districts could work together and support each other.

Michael Clohossey (Mr. Clohossey) recommended DPMWD research the feasibility of owning the AMR/AMI technology themselves, versus going through SSWD, in an effort to remain independent.

William Eubanks (Mr. Eubanks) inquired how the two districts would be helping each other, specifically how DPMWD could help SSWD, as commented by Chair Lenahan.

Director Burt expressed that although there was not a lot DPMWD could do for SSWD, DPMWD currently had 8 groundwater wells and 3 interties with SSWD, which could be a benefit to SSWD.

Chair Lenahan expressed there was a potential for cost sharing opportunities as well, which could result in reduced cost for both districts.

Director Wichert noted that any support SSWD provided to DPMWD would be fiscally recovered. He further noted a longer term contract would be a more equitable sharing agreement.

Mr. Eubanks expressed he was not against helping DPMWD, he just didn't see any benefit for SSWD ratepayers by doing so.

Director Wichert noted that helping DPMWD now could prevent the need for emergency support in the future.

Director Burt noted that the COVID-19 issue was a great example of an emergency situation, and how beneficial it was for DPMWD to already have an agreement in place

during this unprecedented time. She further noted how much she appreciated the support SSWD and staff had provided thus far.

Paul Olmstead commented that it sounded to him like DPMWD was paying SSWD to run their District.

Director Locke reminded the Committee that there were upfront costs associated with the AMR/AMI system, which SSWD ratepayers have already paid into for SSWD.

Chair Lenahan expressed that there was not enough information yet to move forward on this topic, and recommended staff do more research to figure out what options were available. He noted that DPMWD staff would get together to discuss which critical issues to address with their facilities.

4. Reanalyzing the Contract Services Agreement

Mr. York presented the staff report.

Director Wichert expressed that he would like the Committee to work on a set of principles or term sheet that would be agreed upon by the Committee, then for each side to bring it to their respective Boards. He used the example of SSWD being completely compensated for all work performed for DPMWD, noting that it was a basic principal of his. He suggested additional principals like level of service, reporting structure, how many staff would be assigned, etc.

Chair Lenahan expressed that DPMWD was actively recruiting for a General Manager position.

Director Locke noted the current agreement expired in July and he was in favor of extending the agreement further, given the current situation with COVID-19.

Mr. Clohossey commented that he agreed with extending the contract further but expressed he was interested in DPMWD staying independent.

5. Safety Condition Assessment

Mr. York presented the staff report and reviewed each photograph included in the report pointing out the safety concerns.

Director Burt made clear that her intentions were to have a robust safety inspection program and was interested in doing whatever was needed to implement that. She additionally thanked SSWD staff for their continued support with assisting DPMWD.

Mr. York expressed DPMWD had deferred maintenance and they were in need of Standard Operating Procedures.

Director Burt requested if SSWD would share their Standard Operating Procedures.

Mr. York responded that he would provide them to DPMWD.

Director Burt additionally noted that they received the JPIA Safety Inspection Report and would share it with the DPMWD Board as well as SSWD staff.

Roger Nelson commented that he was encouraged by DPMWD's pursuit of a new General Manager.

6. Groundwater Facility Assessment

Mr. York presented the staff report and reviewed each photograph included in the report.

Director Burt requested Mr. York's recommendations on how to prioritize repairing the issues outlined in the presentation. She further recommended DPMWD staff create a checklist to present to the DPMWD Board as repairs were made. She suggested SSWD staff review the checklist to approve of completed repairs.

Mr. York expressed that SSWD could assist DPMWD staff with the preparation of the list.

7. Prioritize Infrastructure Replacement

Mr. York presented the staff report.

Director Wichert suggested a webinar presentation.

Chair Lenahan suggested a meeting with a presentation at a later date.

The Committee agreed to allow Mr. York to figure out an appropriate way to present a presentation to the Committee.

Mr. York expressed he would provide the Committee with a timeframe.

8. Water Agency Affiliations – Benefit of RWA, SGA, etc.

Mr. York expressed that he just needed a list of what affiliations DPMWD belonged to.

Director Burt stated she would provide that list to Mr. York.

9. Next Meeting Date, Time, and Topics for Discussion

The Committee agreed to hold the next Sacramento Suburban Water District/Del Paso Manor Water District 2x2 Ad Hoc Committee on Monday, May 4, 2020, at 5:00 p.m.

Director Burt recommended to discuss potential updates to the Service Agreement at the next meeting.

Director Wichert recommended staff present a presentation on the Asset Management Plan.

Mr. York noted that he would draft an agenda and send it to the Committee two weeks ahead of the meeting for review and approval.

10. Public Comment

None.

Adjournment

Chair Lenahan adjourned the meeting at 6:32 p.m.

DRAFT

Agenda Item: 2

Date: April 29, 2020

Subject: Del Paso Manor Water District Meter Recommendation

Staff Contact: Dan York, SSWD General Manager

Recommended Committee Action:

No Action Required – Informational Item.

Background:

At the last Sacramento Suburban Water District (SSWD) and Del Paso Manor Water District (DPMWD) 2X2 Ad Hoc Committee meeting on April 6, 2020, discussions ensued regarding the operational status of the DPMWD meters at 3601 Kings Way and 3542 Kings Way. SSWD staff was directed as an initial analysis, to examine the meters and figure out options to test, rebuild, or replace the meters.

Discussion:

Meter at 3601 Kings Way - AT&T building

Hector Segoviano, SSWD Distribution Foreman, (Mr. Segoviano) performed a ride along with Ken Ingle, DPMWD Supervisor, (Mr. Ingle) during the last DPMWD meter reading cycle and stated he could hear water flowing through the meter and could hear the register “clicking”, but not registering usage. Mr. Segoviano stated the building has cooling towers and possibly a boiler for heating. Both the cooling towers and boiler have the potential to use a substantial amount of water when they are in use. Below is information related to the subject meter:

- Meter Specification - 6-inch Sensus compound meter that is obsolete and has not been supported by Sensus since 2011. Parts are not available to make repairs.
- Meter Configuration
 - The meter has an oddball lay length and is 2 inches shorter than a standard 6-inch compound meter.
 - The meter is installed on the customer owned backflow assembly plumbing and is bolted directly onto a 90-degree elbow (Attachment 1). This is not an approved installation as per AWWA Standard C702-15 Section A.8: Installation, which refers to the manufacturer’s installation instruction manual that states, “When installing the meter with a Plate Strainer, a minimum of 5 pipe diameters of straight, unobstructed pipe is required upstream of the meter. This allows for dampening of velocity profile distortions caused by items such as elbows, pumps and dirt traps upstream of the meter.” The current installation will definitely effect meter accuracy.
 - There is no meter strainer. Meter strainers are designed with an internal screen that protects the measuring elements of the meter by preventing debris from passing through the meter. They also help reduce water turbulence that effects meter accuracy.

- The meter does not have a by-pass. The by-pass allows for meter testing without interrupting water service to the building. This is important because the building has cooling towers and boilers.
 - This type of commercial meter should be tested on an annual basis.
- Volume of Water Registered - 56 million gallons of water have passed through the meter since installation, based on the current meter read. This does not include the unaccounted water due to meter inaccuracy.
- Service Connection Inspection - Staff attempted to schedule a field visit with Ken Ingle to turn the meter off to confirm what it serves. The visit would have been coordinated with the building Engineer to avoid damaging the cooling towers and boilers. Ken Ingle stated the meter was showing monthly usage so the priority was the meter at 3542 Kings Way.

Recommendation

- Remove meter from the backflow assembly and install the meter assembly as per SSWD Standard Detail No. 18 (Attachment 2), which is consistent with AWWA standards.
- Replace the current obsolete meter with an AMI compatible 6-inch compound meter.
- 6-inch meters are considered high revenue meters and should be tested annually to ensure an accurate revenue stream.

Cost Estimate

- 6-inch compound meter: \$4,300
- 6-inch strainer: \$1,000
- Service upgrade as per contractor: \$14,000
- Total approximate cost: \$19,300

3542 Kings Way – Vacant 3-story commercial building

Mr. Ingle stated the meter at 3542 Kings Way is inoperable.

- Meter Specification - 3" turbine meter, which is the wrong application for this type of service. Turbine meters are designed for high flow applications such as irrigation systems at parks and manufacturing plants. Turbine meters do not capture flows below 4-5 gallons per minute (gpm).
- Meter Configuration
 - The meter has no test port; therefore, it cannot be tested in the field.
 - There is no meter by-pass for testing.
 - There is no meter strainer. Meter strainers are designed with an internal screen that protects the measuring elements of the meter by preventing debris from passing through the meter. They also help reduce water turbulence that effects meter accuracy.
 - As per the previous notes above, this meter is also installed on the customer owned backflow assembly plumbing and is bolted directly onto a 90-degree elbow (Attachment 3). This is not an approved installation.
 - 3" inch meters should be tested on a 3-5 year cycle depending on annual usage.
- Volume of Water Registered - 46.5 million gallons of water have passed through the meter since installation, based on the current meter read. This does not include the unaccounted water that has passed through the meter below the flow rate of 4-5 gpm.

Recommendation

- Remove the meter from the backflow assembly and install the meter assembly as per SSWD Standard Detail No. 16 (Attachment 4), which is consistent with AWWA standards.
- Replace the current turbine meter with an AMI compatible 3-inch compound meter. 3-inch compound meters are accurate down to ½ gpm.
- Test the meter on a 3-5 year cycle depending on annual usage.

Cost Estimate

- 3-inch compound meter: \$2,000
- 3-inch strainer: \$500
- Service upgrade as per contractor: \$10,000
- Total approximate cost: \$12,500

DPMWD Meter Inventory

Initial observations of DPMWD overall meter inventory are as follows;

- None of the meters are AMI compatible.
- There is no preventive maintenance history.
- No meter accuracy testing has been performed.
- Majority of installations are not to AWWA or meter manufacturer requirements.
- Meters are not equipped with strainers.
- Limited ability to field test meters due to the lack of test ports. No by-passes are installed so any field testing will need to be coordinated with the tenants due to water outages.
- Unable to remove meters for bench testing and then reinstall meters due to the low lead law that went into effect March 1, 2010, specifically, State law prohibits the use of any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not “lead free”, as defined in statute, in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption (Health & Safety Code, § 116875, subd.(a).).

Fiscal Impact (DPMWD):

Estimated cost to upgrade one 3-inch service and one 6-inch service, \$31,800 total.

Strategic Plan Alignment:

Goal B: Optimize Operational and Organizational Efficiencies

Attachments:

- 1 - 3601 Kings Way – 6-inch meter assembly
- 2 - SSWD Standard Detail No. 18
- 3 - 3542 Kings Way – 3-inch meter assembly
- 4 - SSWD Standard Detail No. 16

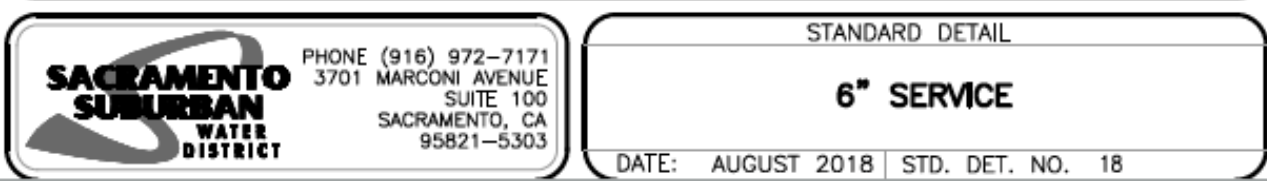
3601 Kings Way – 6 inch meter assembly



Meter on backflow preventer assembly



Obsolete 6 inch compound meter



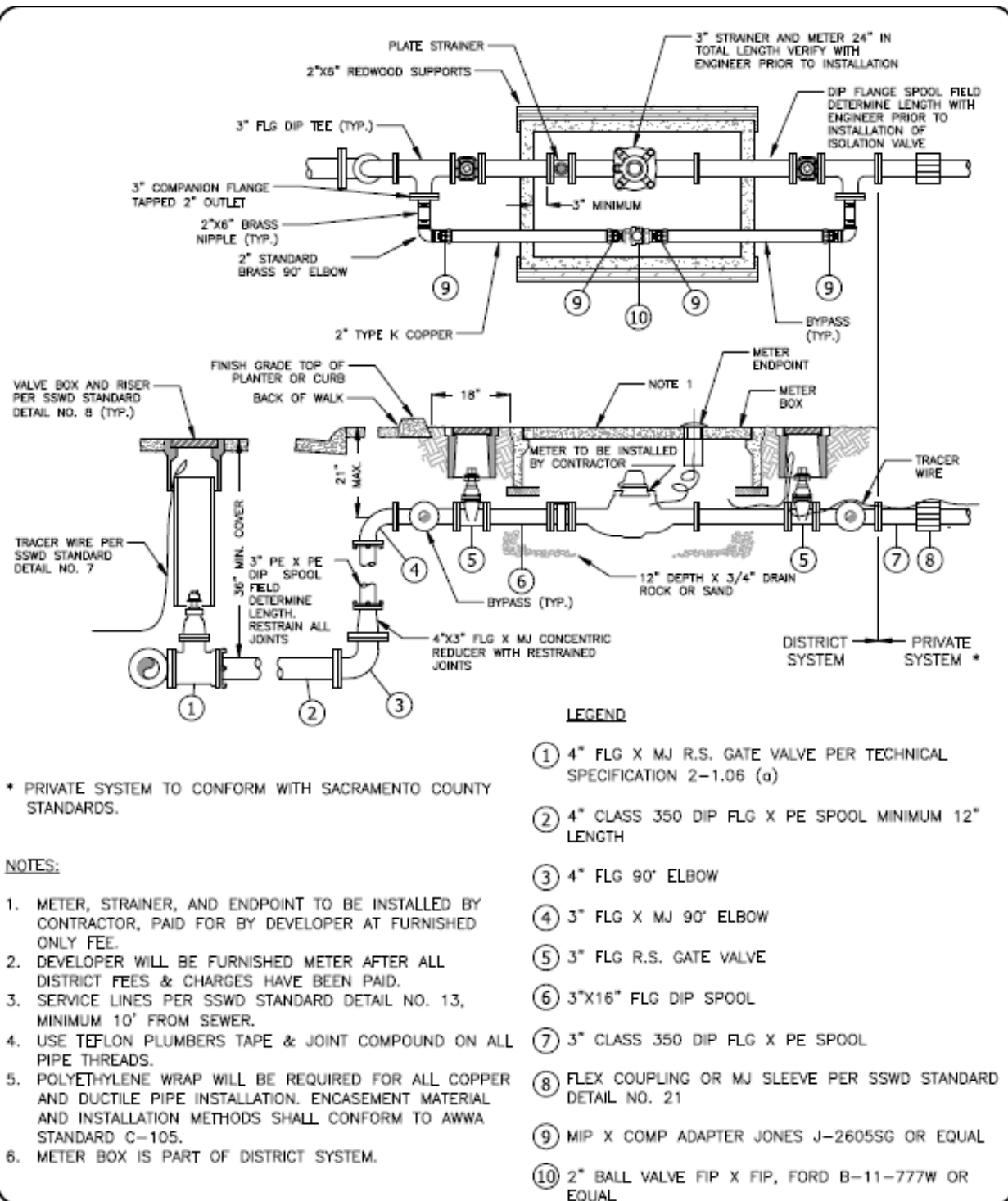
3542 Kings Way – 3-inch meter assembly



Meter on backflow preventer assembly



3-inch turbine meter



**SACRAMENTO
SUBURBAN
WATER
DISTRICT**

PHONE (916) 972-7171
3701 MARCONI AVENUE
SUITE 100
SACRAMENTO, CA
95821-5303

STANDARD DETAIL

3" SERVICE

DATE: AUGUST 2018 | STD. DET. NO. 16

Agenda Item: 3

Date: May 1, 2020

Subject: Sacramento Suburban Water District and Del Paso Manor Water District Operating Service Agreement

Staff Contact: Dan York, SSWD General Manager

Recommended Committee Action:

Direct the Sacramento Suburban Water District (SSWD) General Manager and Del Paso Manor Water District's (DPMWD) Consulting Manager to amend the existing Operating Service Agreement (OSA) and bring before the respective boards prior to July 2020.

Background:

On May 31, 2019, all but one employee of DPMWD resigned/retired, which included the General Manager. In discussions between SSWD's General Manager and DPMWD'S Board President, a request was made to activate the Mutual Aid Agreement (MAA) that exists between the two districts. The MAA was activated on June 6, 2019.

The MAA is basically developed to cover emergency services (e.g., emergency water, labor, vehicles/equipment and inventory supplies), typically for a short duration. The majority of the services being provided to DPMWD is staffing (which includes vehicles/equipment), due to only having one operator for their water system. In January 2020, an OSA was approved by both Boards of SSWD and DPMWD. The OSA covers a majority of what is in the MAA, however, it is more directed towards actual services being provided. The OSA will expire in July 2020, unless extended by both districts.

Discussion:

As mentioned above, an OSA was approved in January 2020, in order to provide adequate services to DPMWD. In February/March, SSWD operated the entire operations of DPMWD due to a temporary absence of their operator. Upon return of DPMWD's operator, there are still particular operational tasks SSWD is continuing to conduct until noticed otherwise.

Due to DPMWD's ongoing needs of assistance until they acquire adequate staffing, it is recommended to extend the OSA that may outline particular assistance.

Fiscal Impact:

Unknown at this time.

Agenda Item: 4

Date: May 1, 2020

Subject: Safety Condition Assessment

Staff Contact: Dan York, SSWD General Manager

Recommended Committee Action:

Review the Del Paso Manor Water District (DPMWD) Well JPIA Safety Findings & Ranking list and recommend taking appropriate action as noted in Attachment 2.

Background:

On March 2, 2020, Sacramento Suburban Water District (SSWD) and DPMWD convened a 2X2 Ad Hoc Committee meeting and DPMWD Director Marissa Burt (Director Burt) requested SSWD to administer a safety condition assessment. DPMWD Director John Lenahan (Director Lenahan) requested if SSWD staff could generate a list of critical items to be addressed to improve the well sites. SSWD Director Robert Wichert (Director Wichert) requested SSWD try to put together the informal list of critical items.

On April 6, 2020, staff presented a list of safety issues along with pictures. Director Burt noted they received the JPIA Safety Findings Report and would share with SSWD staff.

Discussion:

SSWD staff received the DPMWD JPIA Report for Wells 4, 7, and 8 (Attachment 1). JPIA findings were reviewed by SSWD staff, prioritized based on the hazard level, and documented in a spreadsheet (Attachment 2).

SSWD staff recommends that DPMWD mitigates all safety issues. The hazard level ranking will help prioritize the workload.

Fiscal Impact (DPMWD):

A financial assessment has not been performed to date.

Strategic Plan Alignment:

Goal A: Provide a High Quality Reliable Water Supply by Ensuring it is Sustainable, Clean, and Safe

Goal B: Optimize Operational and Organizational Efficiencies

Attachments:

1 - JPIA Report

2 - DPMWD Well JPIA Inspection Safety Findings & Ranking

DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing****RECOMMENDATIONS**

Risk control is management's responsibility. Our assessments are intended only to assist in this activity and should not be construed to be exhaustive, disclosing every loss producing condition that may arise. Any recommendations submitted were developed as a result of conditions observed during our recent visit. Such recommendations do not necessarily address every loss potential, code violation, or exception to sound safety practices.

Implementation of the following recommendations will assist your District in minimizing its potential for claims. A commitment to good risk management practice will strengthen the JPIA pool and continue to allow us to provide affordable, low-cost coverage for our programs.

We are interested in your **plans** to implement our recommendations and would appreciate a timely response. **Please direct the response to Thor Benzing, Senior Risk Control Advisor at the JPIA, within 30 days. The response should address each recommendation specifically.** Copies of the documents used to facilitate implementation would be helpful when applicable. You may make notes on this document and email it to tbenzing@acwajpia.com.

20-01 PHYSICAL HAZARD**Location:** Well #7**Issue:** The vault located at this site meets the definition of a Confined space as prescribed by Cal/OSHA:

- Large enough for bodily entry
- Limited or restricted access
- Not designed for continuous occupancy

Additionally, this space meets the definition of a permit-required space due to having one or more of the following hazards:

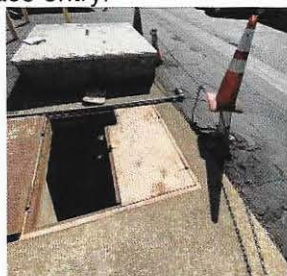
- Potential hazardous atmosphere
- Potential for engulfment
- Other recognized hazard - Chemical hazard

The District does not have a procedure for staff to enter safely. Complying with Cal/OSHA permit-required space entry cannot be completed with only one field employee either. Therefore maintenance, inspection, or service cannot be completed at this site without serious risk of injury or death.

Recommended Solution(s):

Option 1: Eliminate the hazard by moving all required operations out of the vault.

Option 2: Contracting all entries to an appropriate contractor who has the capability of doing a compliant permit-required confined space entry.

**Response:**

DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing****20-02****CHEMICAL HAZARD****Location:** Well #7

Issue: Sodium Hypochlorite is stored in the well with no ventilation. Any chlorine gas vapors released by the stored Sodium Hypochlorite will be trapped in the vault due to having a heavier relative vapor density. Besides the chlorine hazard, there is a risk of displacing the available oxygen in the space. Either or both can create an immediately dangerous to life or health (IDLH) condition within the space.

Recommendation:

Option 1: Move the Sodium Hypochlorite storage out of the vault.

Option 2: Test the space and ventilate the space prior to any entry as prescribed in recommendation 20-01 "Option 2".

In addition, an emergency eyewash station is needed at this site due to staff exposure risk to Sodium Hypochlorite when filling.

**Response:****20-03****SIGNAGE****Location:** Well #7



Issue: The permit-required confined space not correctly labeled.

Recommendation: Stenciled or place a sign on the vault lids per Cal/OSHA 8 CCR §5157(c)(2)

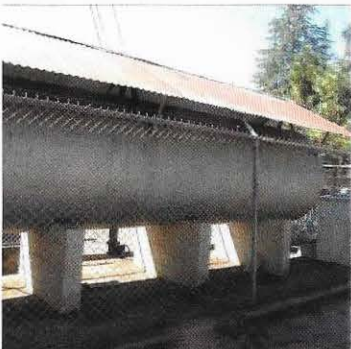

DANGER
PERMIT-REQUIRED CONFINED SPACE
DO NOT ENTER

**Response:**

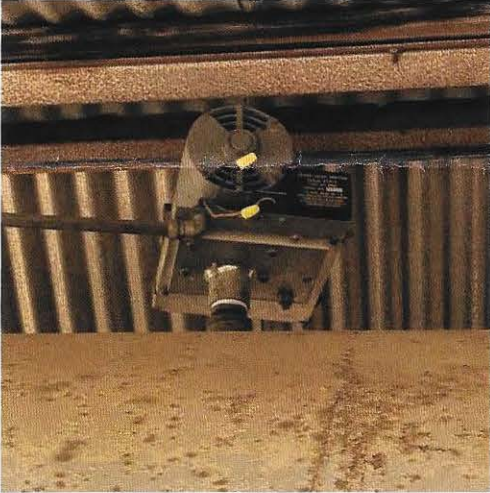
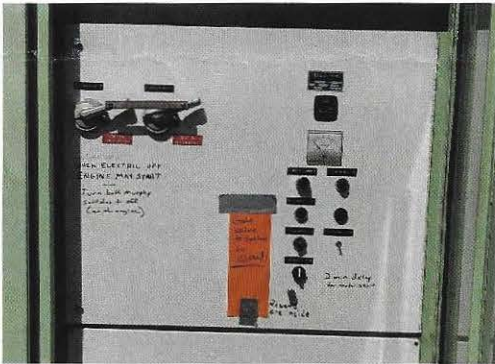

DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing**

<u>20-04</u>	<u>SIGNAGE</u>
	<p>Location: Well #2, #3, #4, #5</p> <p>Issue: The permit-required confined space not properly labeled.</p> <p>Recommendation: Stenciled or place a sign on the hydropneumatic entrances per Cal/OSHA 8 CCR §5157(c)(2)</p> <p style="text-align: center;">DANGER PERMIT-REQUIRED CONFINED SPACE DO NOT ENTER</p> <p>Response:</p>
<u>20-05</u>	<u>PHYSICAL HAZARD</u>
	<p>Location: Well #7</p> <p>Issue: A few of the bollards around the well have been damaged by vehicles coming into contact with them. This damage has compromised the protection the bollards provide to the site and personnel.</p> <p>Recommendation: The District has placed cones on top of some of the bollards. However, this does not prevent future impacts or address the damage to the existing bollards. Recommend replacing the bollards and placing high visibility extensions over the new bollards.</p>  <p>Response:</p>
<u>20-06</u>	<u>SAFETY EQUIPMENT</u>
	<p>Location: Well #4</p> <p>Issue: The location and function of the eyewash station do not meet Cal/OSHA emergency eyewash and shower equipment standards or the requirements outlined in ANSI Z358.1. The current eyewash station requires two actions to activate. Additionally, it is on the far side of where the sodium hypochlorite is stored and used.</p> <p>Recommendation: Remove the existing eyewash station. Plum a new eyewash station or mount a portable eyewash station nearby the point of operation where the risk of chemical exposure has been identified.</p>  <p>Response:</p>


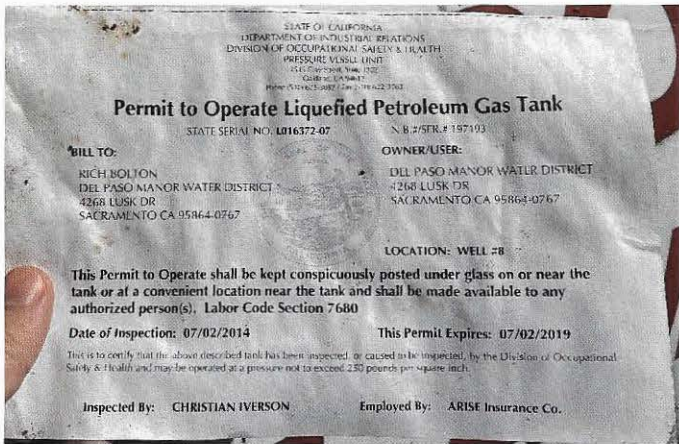
DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing**

20-07	<u>HYDROPNEUMATIC TANKS</u>
	<p>Location: Wells #2, #3, #4, and #5</p> <p>Issue: In 2014, the District received a hydropneumatic tank (non-jurisdictional) inspections from Arise, as indicated in the attached reports. The purpose of these inspections was to determine the operability of the tanks and to recommend actions that would preclude catastrophic failure.</p> <p>Included in the 2014 ACWA/JPIA Risk Assessment Report dated August 1, 2014, was recommendation 14-01. This recommendation was trying to ascertain what actions the District would be taken to address the recommendations provided by Arise 2014 reports.</p> <p>JPIA received a response to the 14-01 recommendation on September 3, 2014. In this response, Debra Sedwick, District General Manager at the time, stated the "Action not feasible or practical at this time. Our Master Plan calls for replacement or elimination of tanks as we replace wells. Cost is prohibitive now."</p> <p>During the 2019 & 2020 JPIA Risk Advisor visits, none of the following recommended actions had taken place.</p> <p>Recommendation: Please provide a timeline for addressing these recommendations or removing the hydropneumatic tanks from service.</p> <p>Corrective actions should consider the following best practices:</p> <ul style="list-style-type: none"> • A pressure relief valve (PRV) should be installed that relieves at or below the tank's maximum designed operating pressure. PRVs should be tested annually and replaced every five years. If the PRV is installed with an isolation valve, lockout/tagout procedures should be used to keep the valve locked in the open position for normal tank operations. • Tanks without an ASME manufacturer data plate should be structurally evaluated by a registered engineer, to determine the maximum operating pressure and measuring the wall thickness of the tank, if it is to remain in-service. • The minimum allowable head and shell thickness indicators on ASME tanks must be compared to the thickness readings provided by the Arise inspector. Operations for tanks with thickness readings less than the minimums should be discontinued or modified as determined by an ASME-qualified engineer. <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p><i>Picture of Well #3 in 2015</i></p> </div> <div style="text-align: center;">  <p><i>Picture of Well #4 in 2020</i></p> </div> </div>
	Response:



DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing**

<u>20-08</u>	<u>ELECTRICAL HAZARD</u>
	<p>Location: Well #4</p> <p>Issue: Electrical wires connected to the compressor on top of the hydropneumatic tank are exposed.</p> <p>Recommendation: Electrical connections need to be inside an appropriately rated junction box.</p> 
	Response:
<u>20-09</u>	<u>CONTROL OF HAZARDOUS ENERGY</u>
	<p>Location: Well #8</p> <p>Issue: Pump controls not correctly locked out and tagged out (LOTO).</p> <p>Recommended Solution(s): Ensure the lock on the pump control panel is a unique lock and place a tag with this lock explaining who placed the lock, contact information, and either expected completion date of the work or date the LOTO was applied. (See attached LOTO guidance)</p>  <p><i>Sign inside cabinet</i></p>  <p><i>Please note, the cabinet door on the right was locked prior to this picture being take.</i></p>
	Response:


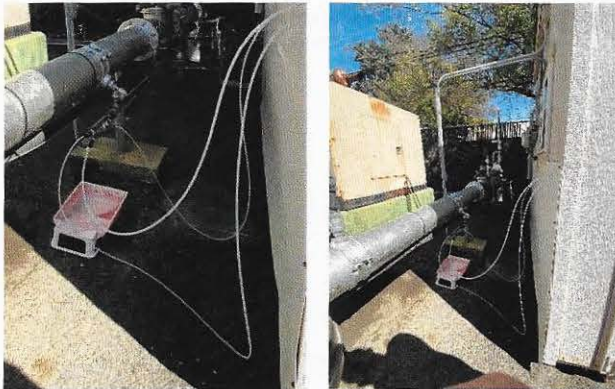
DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing**

20-10	<u>CONTROL OF HAZARDOUS ENERGY</u>
	<p>Location: Well #8</p> <p>Issue: The gate valve is not locked out or correctly tagged out.</p> <p>Recommended Solution(s): Use an appropriate lockout procedure, device (i.e., valve cover or chain), unique identifiable lock, and appropriate tag to lockout the valve. This will prevent the unintended opening of the valve, while service and testing are being performed.</p>  <p>Response:</p>
20-11	<u>PERMIT</u>
	<p>Location: Well #8</p> <p>Issue: Liquid Propane Tank: Cal/OSHA permit expired.</p> <p>Recommended Solution(s): JPIA will coordinate a represented from Hartford to meet with a District staff and conduct the required inspection. Afterword, Hartford will file the appropriate paperwork with the state to issue a new permit.</p>  <p>Response:</p>

DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing**

<u>20-12</u>	<p data-bbox="256 289 509 317"><u>PHYSICAL HAZARD</u></p> <p data-bbox="256 323 472 350">Location: Well #8</p> <p data-bbox="256 354 1430 382">Issue: Liquid Propane Tank: flexible hose connecting the tank to the hard-line is fraying and can fail.</p> <p data-bbox="256 386 1263 413">Recommended Solution(s): Replace the line with an appropriately rated flexible line.</p> <div data-bbox="555 443 1156 947"></div> <p data-bbox="256 982 391 1010">Response:</p>
<u>20-13</u>	<p data-bbox="256 1108 380 1136"><u>SIGNAGE</u></p> <p data-bbox="256 1140 472 1167">Location: Well #8</p> <p data-bbox="256 1171 927 1199">Issue: The liquid propane tank is missing safety signage.</p> <p data-bbox="256 1203 1430 1262">Recommended Solution(s): Its recommended to add an NFPA 704 (NFPA diamond) signs with the appropriate rating numbers. Health = 2, Flammability = 4, and Reactivity = 0</p> <div data-bbox="587 1287 1123 1686"></div> <p data-bbox="256 1722 391 1749">Response:</p>

DEL PASO MANOR WATER DISTRICT**Date of Visit: March 11, 2020****Advisor: Thor Benzing**

20-14	PHYSICAL HAZARD
	<p>Location: Well #8</p> <p>Issue: Currently, there are two shut off valves between the liquid propane tank and the motor. One located under the tank and the other within the emergency generator housing. However, there is no automatic shut off valve that can be triggered if there is a leak, and no staff is present.</p> <p>Recommended Solution(s): Install a leak alarm with an auto valve shut off.</p> <div data-bbox="558 506 1162 814">  </div>
	Response:
20-15	<p>SLIP, TRIP, FALL</p> <p>Location: Well #8</p> <p>Issue: Trip and access hazard due to chemical feed tubes.</p> <p>Recommended Solution(s):</p> <p><i>Option 1:</i> Extend the main feed line into the building and have the chlorine manifold connection inside the building. This will eliminate the fall hazard and contain any future spills within the building.</p> <p><i>Option 2:</i> Elevate the feed tubes, so they are no longer a trip hazard and restrict access to the eyewash station if an operator is on the east side of the tubes. This could be accomplished by rerouting the tubes up and over with the electrical conduit. Additionally, remove the paint roller pan as secondary containment. If there is a concern for a leak, place appropriately designed secondary containment around and/or below the feed tube connection.</p> <div data-bbox="552 1333 1162 1719">  </div>
	Response:

DPMWD Well JPIA Inspection Safety Findings & Ranking

Attachment 2

Hazard Level Definition

1= Imminent employee and/or public safety danger

2= Serious potential safety hazard

3= Non-serious safety or equipment hazard

Hazard Level	Finding #	Well #	Hazard Category	Finding Description	JPIA Recommended Solution(s)	DPMWD Comments
1	20-01	7	Physical Hazard	Unauthorized entry into a vault that has been determined to be a Permit-Required Confined Space as prescribed by Cal/OSHA. Entry cannot be completed for any reason without serious risk of injury or death.	Option 1: Eliminate the hazard by moving all required operations out of the vault. or Option 2: Contract all entries to an appropriate contractor who has the capability of performing Cal/OSHA compliant permit-required confined space entry.	DPMWD is evaluating options to meet safety standards
1	20-02	7	Chemical Hazard	Sodium Hypochlorite is stored in the confined space well vault with no ventilation. Besides the chlorine hazard, there is a risk of displacing the available oxygen in the space. Either or both can create an immediately dangerous to life or health condition within the space. In addition, an emergency eyewash station is needed at this site due to staff exposure risk to Sodium Hypochlorite when filling.	Install emergency eyewash station. And Option 1: Move the Sodium Hypochlorite storage out of the vault. or Option 2: Test the space and ventilate the space prior to any entry as prescribed in recommendation 20-01 "Option 2".	See above
2	20-03	7	Signage	The permit-required confined space not correctly labeled as prescribed by Cal/OSHA.	Install signage to the vault lid "DANGER PERMIT-REQUIRED CONFINED SPACE DO NOT ENTER"	Signage installed
2	20-04	2, 3, 4, 5	Signage	The hydropneumatic tanks are permit-required confined spaces and are not correctly labeled as prescribed by Cal/OSHA.	Install signage to each tank "DANGER PERMIT-REQUIRED CONFINED SPACE DO NOT ENTER"	Signage installed
3	20-05	7	Physical Hazard	Damaged bollards around vault and equipment. This damage has compromised the protection the bollards provide to the site and personnel.	Replace the bollards and place high visibility extensions over the new bollards.	DPMWD is evaluating options to meet safety standards
1	20-06	4	Safety Equipment	Eyewash not Cal/OSHA compliant and in wrong location	Relocate and install new compliant eyewash to area next to chemical hazard.	As a temporary measure the eye wash has been realigned & a permanent shower/eye wash options are being evaluated by staff
1	20-07	2, 3, 4, 5	Hydropneumatic Tanks	In 2014, the DPMWD received a hydropneumatic tank inspection from Arise. The purpose of the inspection was to determine the operability of the tanks and to recommend actions that would preclude catastrophic failure. In 2014, JPIA recommended actions for the DPMWD to take to address the findings of the Arise inspection. During the 2019 and 2020 JPIA Risk Assessments, none of the recommendations had taken place.	(1) A pressure relief valve should be installed that relieves at or below the tank's maximum designed operating pressure. (2) Tanks without an ASME manufacturer data plate should be evaluated by a registered engineer to determine the maximum operating pressure and measuring the wall thickness of the tank, if it is to remain in-service. (None of the tanks have data plates.) (3) The minimum allowable head and shell thickness indicators on ASME tanks must be compared to the thickness readings provided by the Arise inspector. Operations for tanks with thickness readings less than the minimums should be discontinued or modified as determined by an ASME-qualified engineer.	DPMWD is coordinating with JPIA & SSWD
2	20-08	4	Electrical Hazard	Electrical wires on compressor on top of hydropneumatic tank are exposed.	Install wiring into correct NEMA junction box.	DPMWD to coordinate with SSWD & hire a contractor if necessary
1	20-09	8	Control of Hazardous Energy	Pump controls electrical panel not correctly locked out and tagged out (LOTO) per Cal/OSHA requirements.	Install LOTO on panel as required.	DPMWD to coordinate with SSWD
1	20-10	8	Control of Hazardous Energy	Gate valve not locked/tagged out to physically prevent water from this well entering the distribution system.	Install chain and LOTO handle of gate valve. SSWD staff secured the valve with chain and lock to physically isolate the well from the distribution system.	DPMWD to coordinate with SSWD
2	20-11	8	Permit	Propane tank: Cal/OSHA Permit to Operate has expired.	JPIA will coordinate a representative from Hartford to meet with SSWD staff and conduct the required inspection. Following, Hartford will file the appropriate paperwork with the state to issue a new permit.	DPMWD will coordinate with SSWD & JPIA
2	20-12	8	Physical Hazard	Propane tank: Flexible hose connecting the tank to the hard-line is fraying and can fail.	Replace the line with an appropriately rated flexible line.	DPMWD to coordinate with SSWD
3	20-13	8	Signage	Propane tank does not have NFPA hazard diamond signage in place.	Install NFPA diamond sign on the tank with numbers - HEALTH = 2; FLAMMABILITY = 4; REACTIVITY = 0	Signage on order and will install once received

2	20-14	8	Physical Hazard	No automatic shutoff valve on propane line between tank and generator.	Install a leak alarm with an automatic shutoff valve on propane line between tank and generator.	DPMWD will coordinate with SSWD
1	20-15	8	Slip, Trip, Fall	Chemical lines block access to eyewash and are trip hazard and do not have containment.	Relocate chemical lines up above conduit, allowing a safe path to eyewash and add containment tubing if there is a concern for a leak.	DPMWD will coordinate with SSWD

Agenda Item: 5

Date: May 1, 2020

Subject: Groundwater Facility Assessment

Staff Contact: Dan York, SSWD General Manager

Recommended Committee Action:

Review the Del Paso Manor Water District (DPMWD) Groundwater Facility Assessment Findings & Ranking list and recommend taking appropriate action as noted in Attachment 1.

Background:

Following the Sacramento Suburban Water District (SSWD)/DPMWD 2X2 Ad Hoc Committee meeting on March 2, 2020, SSWD staff visited DPMWD well sites and took pictures and documented the Groundwater Facility sanitary conditions. There were universal issues along with some specific well site conditions that were noted.

At the April 6, 2020, SSWD/DPMWD 2X2 Ad Hoc Committee meeting, SSWD staff presented findings of the Groundwater Facility Assessment, which included descriptions of issues observed along with pictures taken on site. DPMWD Director Marissa Burt (Director Burt) requested SSWD's General Manager Dan York (GM York) recommendations on how to prioritize repairing issues outlined in the presentation. She further recommended DPMWD staff create a checklist to present to the DPMWD Board as repairs were made. She suggested SSWD staff review the checklist to approve completed repairs. GM York expressed that he could assist DPMWD staff with preparing the list.

Discussion:

SSWD staff reviewed the Groundwater Facility Assessment Findings. This Groundwater Facility Assessment was performed by SSWD Operations staff as part of scheduled well runs. Thus, it focuses on DPMWD's online sources (Wells 2, 4, 6B, and 9) and does not address issues that may be present at DPMWD's offline facilities (Wells 3, 5, 7, and 8). SSWD staff ranked the hazard level for each finding, provided a description, and recommended solutions. This was consolidated in a spreadsheet (see Attachment 1).

SSWD staff recommends resolving all groundwater facility findings. The hazard level ranking will help prioritize the workload.

Fiscal Impact (DPMWD):

A financial assessment has not been performed to date.

Strategic Plan Alignment:

Goal A: Provide a High Quality Reliable Water Supply by Ensuring it is Sustainable, Clean, and Safe

Goal B: Optimize Operational and Organizational Efficiencies

Attachment:

1 - DPMWD Groundwater Facility Assessment Findings & Ranking

DPMWD Groundwater Facility Assessment Findings & Ranking

Hazard Level Definition

- 1= Imminent safety or public health danger
2= Serious potential sanitary, safety, or operational hazard
3= Less urgent safety or maintenance issue

Attachemnt 1

Hazard Level	Finding #	Well #	Finding Category	Finding Description	SSWD Recommended Solution(s)	DPMWD Comments
1	GW-20-01	2, 4	Chemical Safety	<u>Non-compliance with emergency eyewash/shower requirements</u> - There are eyewash units installed on the hydropneumatic tanks. These eyewash units do not meet Cal-OSHA requirements because they are not properly accessible and they do not have safety showers incorporated. At Well 2, other appurtenances on the hydropneumatic tank could pose a hazard if attempting to use the eyewash unit. At Well 4, the eyewash unit is level with chemical injection less than 12" away. The caps on the eyewash unit are sun-damaged and shrunk, requiring force to remove them.	These facilities should be taken offline and the chemical should be removed. The facilities should remain offline until this issue is resolved. The existing eyewash units need to be replaced with dedicated, accessible emergency eyewash/shower stations that are compliant with Cal-OSHA requirements.	Look into installing eye wash & shower.
1	GW-20-02	2, 4, 6B, 9	Chemical Safety	<u>Lack of secondary containment</u> - There is no double-containment on any of the pressurized tubing that is used to feed sodium hypochlorite. Thus, staff operating the facilities are at high risk for chemical exposure. At Well 9, open containers are used to collect sodium hypochlorite leaks that frequently occur.	The sodium hypochlorite feed systems need to be rebuilt with double-containment tubing installed.	Agreed, looking into it.
1	GW-20-03	6B, 9	Chemical Safety/ Environmental Hazard	<u>Sodium hypochlorite leaks and risk of chemical release</u> - The double-walled tank for sodium hypochlorite has been compromised by installing a drain valve at bottom of the tank, through both walls. Leaks have occurred, shown by build-up on the tank appurtenances. There is a risk of the valve breaking off, which would immediately release the entire contents of the tank. This risk poses a severe environmental hazard. If the chemical release is not contained on site, it could potentially discharge into the creek next to Well 6B or onto the school property next to Well 9.	The existing sodium hypochlorite tank needs to be replaced with an uncompromised, double-walled tank with no drain valve installed.	Agreed, looking into it.
1	GW-20-04	2, 4	Electrical Safety	<u>Arc flash hazard</u> - The 480V panels do not have any arc flash warning labels, indicating that they have not been assessed for arc flash hazard.	A trained electrician with the appropriate arc flash PPE will need to deenergize the facilities. The facilities should remain offline until this issue is resolved. A qualified electrical contractor will need to perform an arc flash hazard assessment, perform corrections/modifications as needed, then post the appropriate warning labels.	Yes, will coordinate with SSWD on performing arch flash hazard assessment
1	GW-20-05	2	Electrical Safety	<u>Improperly secured electrical cables</u> - Electrical cables are strung across the tank and draped in the air presenting hazards.	The unpermitted generator and associated cabling need to be removed from this facility. If not, DPMWD needs to apply for an operating permit.	DPMWD needs to decide which wells will be prioritized for backup power needs and will then work to install a permitted backup powered generator.
1	GW-20-06	4	Electrical Safety	<u>Exposed utility power line</u> - The power lines on the pole for this facility had damaged insulation, leaving the 480V wires exposed.	SSWD staff requested that DPMWD staff notify SMUD. It has now been corrected.	Repaired
1	GW-20-07	2	Water Quality	<u>Chlorination system not in service</u> - The chlorination system was found isolated at the injection assembly, though the well was online. Well 2 has an unresolved history of raw water total coliform positive samples and DDW required DPMWD to ensure it was continuously chlorinated.	SSWD staff went to restore the chlorination system into service and found the assembly broken in multiple locations. SSWD staff performed immediate repairs and the chlorination system is now back in service. Due to the repeated total coliform positive sample results, a sample should be collected and analyzed as a Most Probable Number (MPN) to evaluate the severity of the total coliform issue. Based on this result, the well may need to be taken out of service until it has been superchlorinated and flushed and it renders total coliform negative sample results.	DPMWD will coordinate with SSWD on appropriate sampling testing.
1	GW-20-08	2, 4	Water Quality	<u>Pump bases in unacceptable condition</u> - The base of the pipe entering the pump base has a seal that is no longer secure or sealed. The pump bases have an extensive amount of debris collected. When the well turns off, contaminants from this area can potentially be drawn into the well. Contaminated rainwater could also enter the well.	Due to the public health risk, these facilities should be taken offline and remain offline until this issue is resolved. The pump bases need to be thoroughly cleaned and sealed so that they are water-tight.	DPMWD has addressed this issue and will coordinate inspections with SSWD

Hazard Level	Finding #	Well #	Finding Category	Finding Description	SSWD Recommended Solution(s)	DPMWD Comments
1	GW-20-09	8	Water Quality	<u>Source with water quality issues not physically isolated from system</u> - Motor oil was used instead of dripper oil, causing the well to be placed in off due to water quality concerns. The gate valve on the discharge piping was not locked out to physically prevent water from this well entering the distribution system.	SSWD staff secured the valve with chain and lock to physically isolate the well from the distribution system. The well must remain physically isolated until this water quality issue is resolved.	Addressed
2	GW-20-10	4	Chemical Safety	<u>Leaking sodium hypochlorite injection point</u> - There is a leak on the injection system causing corrosion on the piping below. A rag was present to absorb drips.	The chemical injection point needs to be rebuilt. The hydropneumatic tank may need to be isolated and depressurized to perform the repair.	Parts on order. DPMWD to coordinate with SSWD on proper repairs
2	GW-20-11	6B, 9	Chemical Safety	<u>Sodium hypochlorite leaks</u> - Chemical fittings and pumps have evidence of leaks, shown by build-up. Rags are used to absorb chemical drips.	The sodium hypochlorite feed systems need to be rebuilt to replace any failed parts and install double-containment tubing.	Repairs have been made. DPMWD will coordinate with SSWD on double containment installation process.
2	GW-20-12	6B	Chemical Safety	<u>Improper sodium hypochlorite containment</u> - The chemical pump used to remove the off-gas from the sodium hypochlorite feed system discharges into an open bucket.	The sodium hypochlorite feed system should be reconfigured to prevent off-gassing and remove the need for the de-gas pump and associated bucket.	DPMWD will coordinate with SSWD.
2	GW-20-13	6B	Chemical Safety	<u>Potential for incompatible chemical reaction with sodium hypochlorite</u> - Lubricant spray has been kept on top of sodium hypochlorite dosing pump, and there is evidence of leaks where the tubing connects to the PVC piping. Sodium hypochlorite is known to react violently with organic materials, so it may have an adverse reaction if in contact with this petroleum-based product.	No chemicals should be stored in the sodium hypochlorite room, except for sodium hypochlorite.	Addressed
2	GW-20-14	9	Cross Connection Control	<u>Failed backflow prevention assemblies</u> - Both of the backflow prevention assemblies are leaking from the relief valves, indicating they have failed.	The backflow prevention assemblies need to be repaired and retested by a certified backflow prevention assembly tester.	DPMWD will coordinate repairs with SSWD
2	GW-20-15	4	Electrical Safety	<u>Exposed 120V wiring</u> - Electrical wires on compressor on top of hydropneumatic tank are unsecured.	Install wiring into a proper NEMA junction box.	DPMWD will coordinate repairs with SSWD
2	GW-20-16	2	General Safety Concern	<u>Overhead hazards</u> - There are cables and barbed wire through the middle of the facility.	The barbed wire running across the interior of the facility needs to be removed. The unpermitted generator and associated cabling need to be removed.	Barbed wire has been removed
2	GW-20-17	2, 6B	Sanitary Concern	<u>Improper vent height</u> - The air release valve vents do not meet the minimum required 36" from ground surface, per American Water Works Association Standard C512-04 and Manual M51 (2001).	The vent piping needs to be replumbed so that it is at least 36" above the ground surface.	Well 2 has been raised. Well 6 is still pending
2	GW-20-18	2, 4	Water Quality	<u>Aged sodium hypochlorite</u> - The 5-gallon carboys of sodium hypochlorite were last filled on December 17, 2019. These facilities have limited runtime and the chemical is over 120 days old. Per the American Water Works Association Manual M20, undesirable by-products are formed as sodium hypochlorite degrades. There are water quality risks associated with by-products (such as chlorate) added to the water supply and the reduced strength of the disinfectant (which could lead to bacteriological vulnerability).	Sodium hypochlorite should be titrated on a regular basis to monitor when the chemical needs to be replaced or rotated. SSWD staff have found the typical life of the chemical is 30 to 90 days, depending on the storage and environmental conditions. If sodium hypochlorite has degraded and can no longer be used, it must be properly disposed of as hazardous waste.	Addressed
2	GW-20-19	4	Water Quality	<u>Sodium hypochlorite injection point is on the hydropneumatic tank</u> - The water in the tank could short circuit and not be adequately disinfected.	The existing chemical injection needs to be removed and plugged. The discharge pipe upstream of the hydropneumatic tank will need to be tapped to install a new chemical injection point. Piping modifications may be necessary to accommodate a new chemical injection point.	Parts on order. DPMWD to coordinate with SSWD on proper repairs
3	GW-20-20	6B	Compliance Concern	<u>Improper sample port</u> - The raw water sample port is barbed. Raw water sample ports shall not be threaded (or barbed), per Title 22, Chapter 16, California Waterworks Standards – Article 3: Water Sources §64560.	The barbed fitting should be replaced with copper tubing.	DPMWD to coordinate with SSWD on proper installation
3	GW-20-21	2, 4, 6B, 9	Cross Connection Control	<u>Improper hose bibb connections</u> - All hose bibbs at the facilities are missing atmospheric vacuum breakers. Some of the hose bibbs have caps which can be easily removed. Installing atmospheric vacuum breakers on hose connections is a best practice for potable water districts concerned with preventing backflow and back-siphoning conditions. DDW will typically require this if identified during an inspection.	Atmospheric vacuum breakers will need to be installed on all hose bibb connections.	Addressed
3	GW-20-22	2, 4, 9	Documentation	<u>Poor recordkeeping/documentation</u> - Well 6B has a paper log on-site but the other online facilities do not. At Wells 2 and 4, flow meter readings are written by hand on the side of the hydropneumatic tanks.	SSWD set up and has been maintaining a binder with well run logs on paper for all four online wells. However, the ultimate solution is to record the data electronically into a system designed for future reference and reporting, similar to SSWD's Production Data Capture system.	Data is recorded by SCADA system. Initiating new documentation procedures

Hazard Level	Finding #	Well #	Finding Category	Finding Description	SSWD Recommended Solution(s)	DPMWD Comments
3	GW-20-23	2, 4	Electrical Safety	<u>Improperly secured conduit fittings</u> - Electrical conduit fittings are held together using tape.	Trained staff or an electrician need to make the appropriate repairs so the tape can be removed.	DPMWD will coordinate with SSWD
3	GW-20-24	9	General Safety Concern	<u>Overhead hazards at eye level</u> - Unistrut installed on the wall near the sodium hypochlorite tank poses a risk for injury.	The Unistrut should be relocated to prevent potential injury.	Unistrut has been removed
3	GW-20-25	2	General Safety Concern	<u>Restricted path of travel with overhead hazard</u> - There is a cable hanging down that interferes with an individual's path of travel to the wellhead. There is no room to travel on the other side of the tank.	The unpermitted generator and associated cabling needs to be removed.	Addressed above
3	GW-20-26	2	General Safety Concern	<u>Air compressor on hydropneumatic tank is operated manually</u> - A ladder is left continually on site so DPMWD staff can turn the air compressor on and off manually during the business day.	The air compressor should be replaced with a unit that operates automatically based on the water level.	Part is on order. DPMWD will coordinate installation with SSWD
3	GW-20-27	2	Operational Concern	<u>Improper air buffer in hydropneumatic tank</u> - The hydropneumatic tank is 90% full of water, so there is insufficient air buffer. The sight tube is warping from UV damage. The air charge in the tank is used to absorb system shock and reduce water hammer.	The air compressor needs to be repaired or replaced to ensure proper air buffer. The sight tube needs to be replaced.	See above
3	GW-20-28	2, 4, 6B, 9	Preventive Maintenance	<u>Lack of preventive maintenance</u> - The motor oil is discolored, indicating it is overdue to be changed. The motor screens need to be cleaned to allow for proper air flow. Preventive maintenance is critical in maximizing the life of the equipment and reducing failures.	Staff or a pump contractor will need to perform preventive maintenance tasks at each facility, including changing the oil, cleaning, and lubricating the motor.	Staff will develop a preventative maintenance plan. Ken to coordinate with SSWD
3	GW-20-29	9	Sanitary Concern	<u>Stagnant water collected</u> - The eyewash station bowl was assembled incorrectly. The rubber gasket was installed above (instead of below) the bowl and it currently dams up the water from draining, causing biological growth in the bowl.	The eyewash station gasket needs to be reinstalled properly and the bowl needs to be thoroughly cleaned.	Addressed
3	GW-20-30	2, 4, 6B, 9	Signage	<u>Lack of facility signage</u> - There are no signs on the fencing that would allow for facility identification or emergency contact information.	Signs should be posted on the gates at each facility. The text should include the DPMWD's name, facility identification number, a "No Trespassing" notice, and a 24-hour phone number to contact in the event of an emergency.	DPMWD to discuss with SSWD
3	GW-20-31	4	Signage	<u>Lack of chemical identification</u> - On the sodium hypochlorite storage container that holds the 5-gallon carboy, there is an excessively weathered "corrosive" hazard decal, with no chemical identifier label.	Replace the existing decal with a new label that contains the chemical identifier and meets Globally Harmonized System requirements.	Labels are on order and will be replaced

Issues resolved as of April 24, 2020.

Note: This Groundwater Facility Assessment was performed by SSWD Operations staff as part of scheduled well runs. Thus, it focuses on DPMWD's online sources (Wells 2, 4, 6B, and 9) and does not address issues that may be present at DPMWD's offline facilities (Wells 3, 5, 7, and 8).

Agenda Item: 6

Date: May 1, 2020

Subject: Del Paso Manor Water District Environmental Compliance Assessment

Staff Contact: Dan York, SSWD General Manager

Recommended Committee Action:

No Action Required – Informational Item.

Discussion:

This report summarizes selected water quality and environmental compliance concerns primarily from 2018 through the first quarter of 2020 for the Del Paso Manor Water District (DPMWD). Sacramento Suburban Water District (SSWD) Environmental Compliance staff have included references to specific regulations and the regulatory agencies charged with enforcement of the issues discussed. The sources of information forming the basis of the concerns includes the following:

- Publicly available water quality data in the State Water Resources Control Board, Division of Drinking Water's (DDW) database
- The 2019 DDW Compliance Inspection Report (CIR) for DPMWD dated, January 28, 2020
- The DPMWD 2018 Annual Report to the Drinking Water Program
- DPMWD well site visits
- DPMWD's 2018 Consumer Confidence Report (CCR)
- Available/unavailable hazardous materials permits issued by Sacramento County Environmental Management Department (SCEMD) and emergency generator permits issued by Sacramento Metropolitan Air Quality Management District (SMAQMD)

Compliance concerns that pertain to one or more facilities and the system overall is included as Attachment 1.

Maintaining a proactive approach to complying and adhering to applicable regulatory requirements, and ensuring that Public Water System (PWS) staff have a working relationship with regulatory agencies are critical elements in the operation of a PWS. They are also key points in maintaining the trust and support of customers.

Fiscal Impact (DPMWD):

Fiscal impact is unknown at this time.

Strategic Plan Alignment:

Goal B: Optimize Operational and Organizational Efficiencies

Attachment:

1 – Summary of Environmental Compliance Concerns

Summary of Environmental Compliance Concerns

The following represents a partial list of concerns by well site that do not appear to have been adequately addressed or correctly reported to regulatory agencies, customers, or both. Compliance concerns that pertain to one or more facilities or the system overall are also discussed. It is important to note that compliance with regulatory requirements is ultimately the responsibility of the permit holder of the Public Water System (PWS).

WELL 2

The monitoring result from a sample collected at Well 2 in February 2018 shows iron was detected (440 µg/L), thereby exceeding the secondary maximum contaminant level (MCL) of 300 µg/L. Unless usage of the source is discontinued, according to Title 22, Division 4, Chapter 15, Article 16, §64449(c)(2 and 3), the exceedance triggers quarterly monitoring for three quarters. Compliance with the secondary MCL is determined by averaging the initial sample result with the next three quarterly sample results. If a violation has occurred (the average of the four consecutive quarterly samples exceeds the secondary MCL), the PWS is required to notify DDW by the 10th day of the following month within which the sample result is reported by the laboratory. It is unclear if the requisite reporting to DDW occurred. The following is a summary of iron sampling results reported to date from Well 2.

DATE	IRON (µg/L)	COMMENTS
2/28/2018	440	Previous result = 700 µg/L (8/18/2016)
5/11/2018	290	
8/7/2018	530	
12/11/2018	660	Four quarter average = 480 µg/L ¹ Secondary MCL = 300 µg/L
3/13/2019	720	
6/19/2019	950	
8/7/2019	< 100	2019 running annual average = 583 µg/L
2/11/2020	< 100	

1. Notification required to DDW by January 10, 2019.

WELL 3

As was the case at Well 2 in 2018, the monitoring result from a sample collected at Well 3 in 2018 shows iron was detected (940 µg/L) significantly above the 300 µg/L Secondary MCL. However, 1,2,3-Trichloropropane (1,2,3-TCP) was previously detected in August 2017 and May 2018 at concentrations of 18 and 33 nanograms per liter (ng/L), respectively. Both results are well over the 1,2,3,-TCP Primary MCL of 5 ng/L. It appears as though DPMWD elected not to perform the voluntary Confirmation Sampling for 1,2,3-TCP in accordance within the seven-day window following laboratory notification, as specified in Title 22, Division 4, Chapter 15, Article 5.5, §64445.1(c)(1). According to the 2019 DDW CIR, it wasn't until June 6, 2018, that the permitted status of Well 3 was changed from Active to Standby. While any usage of Well 3 at this time is unadvisable, the permitted status as a Standby source limits its usage to short-term emergencies. Title 22, Division 4, Chapter 15, Article 2, §64414(c) states the following, "A Standby source shall

be used only for short-term emergencies of five consecutive days or less, and for less than a total of fifteen calendar days a year.”

The nitrate sample was probably collected to meet Standby well monitoring requirements. It is unclear why additional 1,2,3-TCP samples, or the iron sample discussed above were collected in 2018. It is also unclear where the water produced during those and the nitrate sampling events was discharged. Serving the water to the public without specific authorization from DDW may put customer's health at risk and result in DPMWD receiving a notice of violation from DDW with a requirement to notify the public. Water discharged to the storm drain system would be a violation of the Clean Water Act. Water produced from any additional sampling performed at Well 3 would require containerization and discharge to the sanitary sewer. A temporary discharge permit from the Sacramento Regional County Sanitation District (SRCSD) is required prior to any discharge to the sewer. The following lists the most recent monitoring reported to DDW for Well 3.

CONTAMINANT	DATE	RESULT	COMMENTS
1,2,3-TCP	8/29/2017	18 ng/L	Primary MCL = 5 ng/L
1,2,3-TCP	5/11/2018	33 ng/L	
Nitrate	9/11/2018	2.6 mg/L	
1,2,3-TCP	12/11/2018	18 ng/L	
Iron	12/11/2018	940 µg/L	Secondary MCL = 300 µg/L

WELL 4

Similar to Wells 2 and 3, Well 4 showed an iron Secondary MCL exceedance (420 µg/L) in 2018. It is unclear why quarterly monitoring for iron was initiated in 2018 as the most recent iron sample collected before that was in August 2016 (440 µg/L). Regardless, as indicated in the discussion for Well 2, compliance with the secondary MCL is determined by averaging the initial sample result (that exceeds the MCL) with the next three quarterly sample results. If a violation has occurred (the average of the four consecutive quarterly samples exceeds the Secondary MCL), the PWS is required to notify DDW by the 10th day of the following month within which the sample result is reported by the laboratory. It is unclear if the requisite reporting to DDW occurred. The following is a summary of iron sampling results reported to date from Well 4.

DATE	IRON (µg/L)	COMMENTS
2/28/2018	180	
5/11/2018	420	First exceedance, Secondary MCL = 300 µg/L
8/7/2018	810	
12/11/2018	650	
3/13/2019	1600	Four quarter average = 870 µg/L ¹
6/19/2019	880	
8/6/2019	< 100	2019 running annual average = 783 µg/L
2/11/2020	< 100	

1. Notification to DDW required by April 10, 2019.

WELL 5

Similar to Wells 2, 3 and 4, Well 5 showed a Secondary MCL exceedance (490 µg/L) for iron in 2018. It is unclear why quarterly monitoring for iron was initiated in 2018 as the most recent iron monitoring before that was in August 2016 (@ 410 µg/L). Regardless, as indicated in the

discussion for the previous wells, compliance with the secondary MCL is determined by averaging the initial sample result (that exceeds the MCL) with the next three quarterly sample results. If a violation has occurred (the average of the four consecutive quarterly samples exceeds the secondary MCL), the PWS is required to notify DDW by the 10th day of the following month within which the sample result is reported by the laboratory. It is unclear if the requisite notification to DDW occurred. The following is a summary of iron sampling results reported to date from Well 5.

DATE	IRON (µg/L)	COMMENTS
2/28/2018	110	
5/11/2018	490	First exceedance, Secondary MCL = 300 µg/L
8/7/2018	400	
12/11/2018	960	
3/13/2019	2000	Four quarter average = 963 µg/L ¹
6/19/2019	1200	
8/6/2019	410	2019 running annual average = 1143 µg/L
2/11/2020	900	

1. Notification to DDW required by April 10, 2019.

WELLS 6B and 7

Based on a review of recent water quality data in DDW's database, there are no apparent water quality concerns associated with Wells 6B or 7.

WELL 8

The monitoring result from a sample collected at Well 8 on August 13, 2019, shows tetrachloroethylene (PCE) was detected at a concentration of 13 µg/L, thereby exceeding the Primary MCL of 5 µg/L. According to Title 22, Division 4, Chapter 15, Article 5.5, §64445.1(c)(5), notification to DDW is required within 48 hours from receipt of the laboratory report. Unless usage of the source is discontinued, §64445.1(c) allows the water supplier to collect one or two additional samples within seven days of laboratory reporting to confirm the initial result. If the result is confirmed, §64445.1(c)(5)(A) requires that monthly sampling be performed for six months. It further indicates that if the average of the initial result and the six monthly results exceeds the MCL, the system is in violation of the MCL. Based on the available data, it does not appear that the notification to DDW, optional confirmation sampling, or required monthly sampling were performed.

Because available data indicates that the water from Well 8 exceeds the primary MCL for PCE, water pumped from the well cannot be pumped into the distribution system or into the storm drain system. As indicated in the discussion for Well 3, serving the water to the public without specific authorization from DDW may put customer's health at risk and result in DPMWD receiving a notice of violation from DDW with a requirement to notify the public. Water discharged to the storm drain system would be a violation of the Clean Water Act. Water produced from any additional sampling performed at Well 8 would require containerization and discharge to the sanitary sewer. A temporary discharge permit from the SRCSD is required prior to any discharge to the sewer.

A recently received laboratory report indicates that DPMWD staff collected a sample on February 11, 2020, for analysis of PCE and total petroleum hydrocarbons – diesel range (TPH-D). The PCE result (1.3 µg/L) came back significantly less than that of the sample collected in August 2019.

No TPH-D was detected. It is unclear why the PCE or TPH-D sample was collected or what the results are intended to represent. According to the laboratory report, the DDW engineer was forwarded a copy of the report; however, the results are not currently in DDW's database. The following table shows notable water quality data from Well 8 since 2016.

CONTAMINANT	DATE	RESULT	COMMENTS
PCE	6/21/2016	1 µg/L	This result triggers quarterly monitoring. Not done
PCE	8/13/2019	13 µg/L	This result triggered 48 hour notification to DDW and quarterly monitoring. Not done
Hexavalent Chromium	8/14/2019	8.8 µg/L	Unclear why this sample was collected. The MCL was rescinded on Sep 11, 2017. The result is well above historic results (4.1 - 4.2 µg/L)
PCE	2/11/2020	1.3 µg/L	Unclear why this sample was collected or what it is intended to represent
TPH-D	2/11/2020	< 50 µg/L	Unclear why this sample was collected or what it is intended to represent

WELL 9

Similar to Wells 2, 3, 4, and 5, Well 9 showed a Secondary MCL exceedance (430 µg/L) for iron in 2018. However, unlike the other wells, no quarterly monitoring for iron was performed. Based on the information available in DDW's database, only one other iron sample has been collected at Well 9 to date (August 7, 2019, < 100 µg/L). Regardless, as indicated in the discussion for the previous wells, compliance with the secondary MCL is determined by averaging the initial sample result with the next three quarterly sample results. If a violation has occurred (the average of the four consecutive quarterly samples exceeds the secondary MCL), DDW is required to be notified by the 10th day of the following month within which sample result is reported. It is unclear why the quarterly monitoring was not conducted at Well 9.

ALL SITES

Environmental compliance concerns for the system overall and each individual well site not discussed previously include:

- Discharges to waters of the U.S.
- Storing amounts of hazardous materials greater than or equal to Reportable Quantities
- Operation of emergency generators
- Information required in the Consumer Confidence Report

NPDES Discharges

All point source discharges to Waters of the U.S. require a National Pollutant Discharge Elimination System (NPDES) permit. The State Water Resources Control Board (SWRCB) has an NPDES permit for water purveyors that specifically covers the various discharges performed in the day-to-day operation of drinking water systems. It is unknown if DPMWD has a valid NPDES permit.

If DPMWD does not have an NPDES permit, its small size allows it to apply for one discussed above, or an individual, system-specific low-threat NPDES permit. Depending on the type of NPDES permit chosen by DPMWD, the issuing agency is either the SWRCB or the Regional Water Quality Control Board. Fines associated in excess of \$10,000 for unpermitted discharges or violations of NPDES permit conditions (including violations of the Clean Water Act) are not uncommon.

Hazardous Materials Requirements

Hazardous Materials Business Plans (HMBPs) are required for any business, utility, government agency, etc. that uses, stores, or has containerized volume to store hazardous materials at or above "Reportable Quantities." Reportable Quantities are as follows: for liquids (55 gallons), for solids (500 pounds), and for compressed gases (200 cubic feet). HMBPs are site-specific; therefore, DPMWD is required to have a HMBP for each of its facilities that stores (or has the available volume to store) Reportable Quantities of hazardous materials. DPMWD has Reportable Quantities of hazardous materials at several facilities; however, none of them have HMBPs.

Upon receipt and approval of an HMBP, the local permitting agency (Sacramento County Environmental Management Department [SCEMD]) issues an invoice for an annual Hazardous Materials Permit (HMP). The following are DPMWD facilities that require HMBPs/HMPs: Every DPMWD well site or facility with a sodium hypochlorite tank having a capacity greater than or equal to 55 gallons, Well 2 (diesel fuel tank of emergency generator), Well 8 (propane fuel tank for emergency generator). Facilities with more than eight 60-pound bags of concrete or asphalt patch must also be included in the HMBP. SCEMD typically refers cases involving significant hazardous materials violations to the District Attorney.

Air Quality Requirements

The California Air Resources Board (CARB) has specific requirements for the operation of emergency generators. The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the local agency that administers CARB regulations (in addition to their own) via a permitting process. DPMWD has a natural gas emergency generator at Well 6B in addition to two other generators discussed above. However, only the propane and natural gas-powered generators have SMAQMD permits. The diesel-powered generator at Well 2 is unpermitted. SMAQMD penalties resulting from operating an emergency generator without a permit or violating a permit condition typically range from \$10,000 to \$20,000.

Customer Water Quality Reporting

The Consumer Confidence Report (CCR) is required to be prepared by the PWS and delivered to customers every year by July 1. The CCR guidance lists basic requirements about reporting water quality data, most notably: if a well was used to provide water to customers, the laboratory data must be included. If it was not used to provide water, the laboratory data should not be included. Other specific requirements address: reporting MCL violations, what data to include, presenting data, labelling columns in the data tables, how to calculate averages, report ranges, etc. Those requirements also state that PWSs must include additional information about MCL violations. The 2018 DPMWD has problems in all those categories. Significant among them are that the DPMWD 2018 CCR does not accurately calculate the range of 1,2,3-TCP detections (ND

– 33 ng/L), or the average amount detected. In fact, based on the “1,2,3-TCP Update” in the 2018 CCR, the data from Well 3 should not have been included in the table. In addition, the DPMWD 2018 CCR does not include correct or specific information required about the secondary MCL iron violations at Wells 2, 4, 5, and 9. Because of various reasons, including insufficient and improper monitoring at some wells, those violations and the PCE violation at Well 8 must be reported in DPMWD’s 2019 CCR for any of those wells that were used to provide water to customers in 2019.

Summary

The preceding summary discusses some of the water quality and environmental compliance concerns in the DPMWD observed by SSWD Environmental Compliance staff. At this time, it is unclear why DDW staff did not initiate enforcement of the drinking water regulations cited in the discussions of the individual well sites. The Executive Summary of DDW’s 2019 Compliance Inspection Report (2019 CIR) indicates there have been water quality exceedances and new deficiencies since the last inspection but does not elaborate. The Chemical Monitoring section of the 2019 CIR lists four Secondary Maximum Contaminant Level (Secondary MCL) violations for iron. They are at Wells 2, 3, 4, and 5. It is also unclear why the 2019 CIR does not address the 13 µg/L PCE result from the sample collected at Well 8 in August 2019. Based on the available data, no Confirmation Sampling was performed in accordance with the regulations following the initial detections of 1,2,3-TCP at Well 3, or PCE at Well 8. Furthermore, there is no indication that the requisite monthly sampling was performed following the initial detections. In response to the iron violations, DDW may do one or more of the following: require treatment, require removal of the well(s) from service, or grant a waiver if customers deem the water quality acceptable.

The presentation of data and the reporting inaccuracies in DPMWD’s 2018 CCR do not adhere to DDW’s CCR guidance. As discussed previously, a review of the data indicates there were reportable MCL violations for iron at Wells 2, 4, 5, and 9 (Well 3 was re-permitted as Standby) that should have been included and discussed in the 2018 CCR. Inaccuracies involving reporting and data presentation also affect DPMWD’s customers. One of the primary purposes of the CCR is to accurately convey information about water quality to customers. Inaccurate and incomplete information may provide customers with a false sense of security. It may also make them less willing to increase funding to address problems that they do not know exist. Furthermore, serving water in excess of a Primary MCL increases the risk of litigation by customers who may believe they have been harmed.

Regardless of the responsive actions by DDW, compliance with drinking water requirements remains the responsibility of the agency holding the water supply permit. It is not DDW’s function or responsibility to operate the PWS in accordance with State and Federal drinking water regulations. It is important to note that DDW does not provide comprehensive daily oversight of PWSs. PWS management and staff are responsible for the maintenance and operation of the system. The PWS is also responsible to know what other environmental compliance requirements pertain to the operation of the system. Not having the requisite NPDES permit, HMPs, SMAQMD permits, and any other permits that may be required has the potential to:

- Put the PWS in violation of Local, State, or Federal regulations
- Endanger employees, customers, or the environment
- Expose the PWS to significant financial penalties
- Lose the trust and confidence of customers

Agenda Item: 7

Date: April 27, 2020

Subject: Water Industry Affiliations

Staff Contact: Dan York, SSWD General Manager

At the April 6, 2020, meeting of the Sacramento Suburban Water District (SSWD) and Del Paso Manor Water District (DPMWD) 2x2 Ad Hoc Committee, DPMWD Director Marissa Burt (Director Burt) requested SSWD General Manager Dan York to review the list of affiliations DPMWD are members of, and provide information on the benefit to their district. Director Burt provided the following affiliations and their annual dues:

- American Water Works Association – Annual Dues \$433
- Association of California Water Agencies – Annual Dues \$6,305
- California Rural Water Association – Annual Dues \$777
- California Special District Association – Annual Dues \$5,896
- Regional Water Authority – Annual Dues \$6,081
- Sacramento Area Water Works Association – Annual Dues \$900
- Sacramento Groundwater Authority – Annual Dues \$17,583
- Water Forum Successor Effort (WFSE) – N/C, paid for by cities and counties

Agenda Item: 8

Date: April 28, 2020

Subject: Training and Mentoring Opportunities

Staff Contact: Dan York, SSWD General Manager

Recommended Board Action:

No Action Required – Discussion Item.

Background:

On April 23, 2020, SSWD Director Robert Wichert requested to add a training/mentoring item to the May 4, 2020, agenda.

Discussion:

This item is to open discussion on training and mentoring opportunities between Sacramento Suburban Water District and Del Paso Manor Water District. Collaborating between the two water districts by providing training and mentoring opportunities can be mutually beneficial. Opening this item for discussion will allow both districts to share how they can help each other and provide training and mentoring opportunities.

Fiscal Impact:

This is for discussion purposes so there is no fiscal impact.

Strategic Plan Alignment:

Goal B: Optimize Operational and Organizational Efficiencies