



**FALLBROOK PUBLIC UTILITY DISTRICT
MEETING OF THE ENGINEERING & OPERATIONS COMMITTEE**

AGENDA

**MONDAY, SEPTEMBER 18, 2023
11:00 A.M.**

**FALLBROOK PUBLIC UTILITY DISTRICT
990 E. MISSION RD., FALLBROOK, CA 92028
PHONE: (760) 728-1125**

THIS MEETING WILL BE HELD AT THE ABOVE DATE, TIME, AND LOCATION AND MEMBERS OF THE PUBLIC MAY ATTEND IN PERSON AT THE DISTRICT OFFICE LOCATED AT 990 E. MISSION RD., FALLBROOK, CA 92028. FOR THE CONVENIENCE OF MEMBERS OF THE PUBLIC WHO DO NOT WISH TO ATTEND IN PERSON, FALLBROOK PUBLIC UTILITY DISTRICT PROVIDES A MEANS TO OBSERVE AND PROVIDE PUBLIC COMMENTS AT THE MEETING VIA WEB CONFERENCE USING THE BELOW CALL-IN AND WEBLINK INFORMATION. PLEASE NOTE THAT IN THE EVENT OF TECHNICAL ISSUES THAT DISRUPT THE ABILITY OF MEMBERS OF THE PUBLIC TO VIEW THE MEETING OR PROVIDE PUBLIC COMMENTS THROUGH THE WEB CONFERENCE OPTION, THE MEETING WILL CONTINUE.

Join Zoom Meeting

<https://us06web.zoom.us/j/83741957441?pwd=f5J5I3cPflvacQlq4VjHlYVQelWoQo.1>

MEETING ID: 837 4195 7441

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PUBLIC COMMENTS: Members of the public may submit public comments and comments on agenda items in one of the following ways:

SUBMIT COMMENTS BEFORE THE MEETING:

- By emailing to our Board Secretary at leckert@fpud.com
- By mailing to the District Offices at 990 E. Mission Rd., Fallbrook, CA 92028
- By depositing them in the District's Payment Drop Box located at 990 E. Mission Rd., Fallbrook, CA 92028

All comments submitted before the meeting by whatever means must be received at least 1 hour in advance of the meeting. All comments will be read to the Committee during the appropriate portion of the meeting. Please keep any written comments to 3 minutes.

REMOTELY MAKE COMMENTS DURING THE MEETING: The Committee Chair will inquire prior to Committee discussion if there are any comments from the public on each item.

- Via Zoom Webinar go to the "Participants List," hover over your name and click on "raise hand." This will notify the moderator that you wish to speak during oral communication or during a specific item on the agenda.
- Via phone, you can raise your hand by pressing *9 to notify the moderator that you wish to speak during the current item.

MAKE IN-PERSON COMMENTS DURING THE MEETING: The Committee Chair will inquire prior to Committee discussion if there are any comments from the public on each item, at which time members of the public attending in person may make comments.

THESE PUBLIC COMMENT PROCEDURES SUPERSEDE THE DISTRICT'S STANDARD PUBLIC COMMENT POLICIES AND PROCEDURES TO THE CONTRARY.

If you have a disability and need an accommodation to participate in the meeting, please call the Board Secretary at (760) 999-2704 for assistance.

I. PRELIMINARY FUNCTIONS

CALL TO ORDER / ROLL CALL

PUBLIC COMMENT

II. ACTION / DISCUSSION------(ITEMS A-C)

- A. RECOMMENDATION FOR E&O APPROVAL FOR ROOF REPAIR/REPLACEMENT AT MAIN OFFICE BUILDING
- B. CHLORINE SCRUBBER REPLACEMENT
- C. WATER RECLAMATION PLANT OPERATIONS

III. ADJOURNMENT OF MEETING

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DECLARATION OF POSTING

I, Lauren Eckert, Executive Assistant/Board Secretary of the Fallbrook Public Utility District, do hereby declare that I posted a copy of the foregoing agenda in the glass case at the entrance of the District Office located at 990 East Mission Road, Fallbrook, California, at least 72 hours prior to the meeting in accordance with Government Code § 54954.2.

I, Lauren Eckert, further declare under penalty of perjury and under the laws of the State of California that the foregoing is true and correct.

September 15, 2023
Dated / Fallbrook, CA

/s/ Lauren Eckert
Executive Assistant/Board Secretary

M E M O

TO: Engineering & Operations Committee
FROM: Kevin Collins, Purchasing/Warehouse/Fleet Supervisor
DATE: September 18, 2023
SUBJECT: Recommendation for E&O Approval for Roof Repair/Replacement at Main Office Building

Description

This project is for the complete replacement and repair of the roof at the main office building. The roof is over 27 years old and has seen the end of its useful life expectancy. Due to the age and condition of the roof, numerous leaks have begun to appear over the past few years. These leaks jeopardize other aspects of the building and require significant repair, driving up costs to maintain the facility in order to keep it safe and inhabitable for staff.

Purpose

A complete inspection was performed on the FPUD roof in December of 2022 to prepare for the FY 24 project. As a result of that inspection, it was determined that the following items need to be fully repaired or replaced:

- Replacement of bad plywood (35 sheaths estimated)
- Replacement of underlayment (all)
- Replacement of tiles (350 estimated)
- Coverboard and membrane install (entire roof)
- Metal flashing replacement (all)
- Gutter replacement (as needed)
- All vents and solar tubes replaced
- New and existing fascia repair
- Bird stop and drip edge install (all)
- TPO Boot Install on all pipes/vents
- Misc items (caulk, termination bars, stainless steel bands, stucco and drywall repair, paint, etc)

In addition, due to the leaks, the main support beams above Engineering and Accounting have sustained wood rot and will need to be repaired or replaced based on the analysis of a structural engineer that is being provided by the winning bidder.

An RFP was advertised to potential bidders in the Union Tribune on August 5th and August 6th, 2023. From that advertisement, a total of five bids were received. Of those, two bids

were deemed responsive and responsible. The low bid for this project was provided by Bishop, Inc. in the amount of \$393,898.00.

Budgetary Impact

The work will be completed within the Board authorized budget of \$400,000 for this project within the overall administrative CIP.

Recommended Action

The Engineering and Operation Committee recommend that the FPUD Board of Directors approve a contract with Bishop, Inc. in the amount of \$393,898.00.

M E M O

TO: Engineering & Operations Committee
FROM: Carl Quiram, Operations Manager
DATE: September 18, 2023
SUBJECT: Chlorine Scrubber Replacement

Purpose

To replace the 31-year-old chlorine scrubber at the Water Reclamation Plant.

Background

Chlorine gas is the most efficient way of disinfecting water because it is 100% chlorine whereas sodium hypochlorite is 12.5% chlorine so it takes a much larger chemical storage and supply system. Due to the danger that chlorine gas presents to operators and the public, there are several overlapping safety features to contain a chlorine spill. The district keeps up to date and current on the Standard Operating Procedure (SOP) related to handling the chlorine system. Operators are required to wear a full-faced SCBA mask and gloves and follow a buddy system with a rescuer outside to enter the room to change or do maintenance on a gas cylinder. There are gas monitors inside the room, with displays at the room entrance, so that operators can confirm there is no chlorine released into the room before they enter. There are also Halogen Valves on all open containers. These valves are designed to automatically close if a leak is detected. In addition, FPUD has an automatic scrubbing system designed to evacuate any spilled chemical in the room and direct it through a chemical scrubber to neutralize the chlorine gas.

On October 11, 2022, during a routine exchange of the scrubber medium it was discovered that the fiberglass tank was heavily corroded. From that moment on, the District stepped up testing and monitoring the system. At no time was the system not performing in accordance with its O&M manual.

Analysis

At that time, the District started the process of planning and budgeting for the replacement. In this fiscal year's capital improvement budget there is \$300,000 allocated to this project. District staff, in an attempt to be thorough, began to evaluate other disinfection systems, such as, sodium hypochlorite liquid, on-site chlorine generation and dry scrubbers. Below is a discussion of each of the options:

Wet Scrubber Replacement – Though this is a cheaper purchase price, there are drawbacks to wet scrubbers. Wet scrubbers require the purchase and storage of caustic soda (hazardous) to neutralize the chlorine gas.

Dry Scrubber – A dry scrubber works the same as a wet scrubber with the exception of the neutralizing media. A dry scrubber is filled with a non-hazardous media that is designed to neutralize the chlorine gas. There is no liquid chemical storage needed.

Onsite Generation – With onsite generation the system would use water, salt and a large amount of energy to create sodium hypochlorite on site. The size of the WRP is too small to make onsite a viable option. During consideration of this option the District also considered sizing a system that could provide the sodium hypochlorite for both WRP and SMGTP but that would become more expensive and create operational challenges. Also, speaking to peers that use this system they have been having a hard time keeping a dependable supply of salt delivering to their facility.

Conversion to liquid sodium Hypochlorite – Though this is the overall cheapest purchase price, there are drawbacks with the storage and cost of sodium hypochlorite. Since the percent chlorine is so much lower than gas we would need considerable more chemical to provide the same treatment making this option more expensive.

The financial results of this analysis are summarized in Attachment 1. Once we receive direction from the Board to move forward the district would hire a designer to design the site for the new scrubber. The project would then go out to bid for construction/installation.

Recommended Action

Staff recommends that the Board of Directors authorize staff to pursue the replacement of the current wet scrubber with a new dry scrubber, prepare a bid package that will come back to the Board for award.

Attachment A – Options Table

Attachment A

Scrubber Replacement Options				
	Wet	Dry		Gas to
	Scrubber	Scrubber	Onsite	Bleach
	\$ 280,000			
		\$ 518,000		
		\$ 354,200		
		\$ 301,700		
			\$ 990,400	
				\$ 387,660
Annual O&M Cost Estimates				
Operation	\$ 70,000	\$ 50,000	\$ 120,000	\$ 147,000
Maintenance	\$ 7,000	\$ 5,000	\$ 20,000	\$ 5,000
Total 10 YR Cost				
	\$ 1,050,000	\$ 851,700	\$ 2,390,400	\$ 1,907,660