ENGINEERING AND OPERATIONS COMMITTEE

September 28, 2020 - 2:30 PM
31111 Greenspot Road, Highland, CA 92346

In an effort to prevent the spread of COVID-19 and in accordance with Governor Newsom’s Executive Order N-25-20 and N-29-20, this meeting is being conducted via teleconference. There will be no public location for attending this meeting in person. Members of the public may listen and provide public comment telephonically.

Anyone wishing to join the meeting may do so using the following information:

DIAL: 1-209-425-5876 and enter CONFERENCE ID: 862 515 637#

You may also join by clicking HERE to connect and participate in the Microsoft Team Meeting

AGENDA

CALL TO ORDER
PLEDGE OF ALLEGIANCE
PUBLIC COMMENTS
NEW BUSINESS

1. Approval of Minutes July 27, 2020
2. Operations Update on In-house Water Main Projects
3. Engineering Updates for September 2020

ADJOURN

PLEASE NOTE:

Pursuant to Government Code Section 54954.2(a), any request for a disability-related modification or accommodation, including auxiliary aids or services, that is sought in order to participate in the above-agendized public meeting should be directed to the District Clerk at (909) 885-4900 at least 72 hours prior to said meeting.
Ms. Van Meter called the meeting to order at 2:30 p.m. and Mr. Noelte led the flag salute.

PRESENT: Directors: Smith, Coats
ABSENT: Martha Duran, Sr. Administrative Assistant

STAFF: Jeff Noelte, Director of Engineering and Operations, Patrick Milroy, Operations Manager; Brenda Van Meter, Administrative Assistant; Shayla Antrim, Sr. Administrative Assistant; Christi Koide, Sr. Administrative Assistant

GUEST(s): None

PUBLIC COMMENTS
There being no written or verbal comments, the public participation section was closed.

APPROVE THE DECEMBER 2, 2019 ENGINEERING AND OPERATIONS COMMITTEE MEETING MINUTES
The minutes for December 2, 2019 were approved by unanimous roll call vote, and by means of necessity as presented.

Operations Update - East Trunk Sewer Transfer to EVWD

Mr. Milroy, Operations Manager, presented a report regarding the transfer and responsibility of the East Trunk Sewer Main line that is in the District’s service area. Mr. Milroy gave an overview of the Settlement Agreement that was executed in November 2017. He noted that the connection is a large high flow sewer main, which is a key asset to add to the District’s network and will deliver flows to the Sterling Natural Resource Center. Mr. Milroy shared that the sewer totals 33,000 linear feet and flows in a north to south fashion starting on Mountain Avenue. He illustrated a map showing the location of the line that ends in the south west portion of the District on Waterman Avenue and 6th Street. Mr. Milroy shared that District staff recently performed 24,000 linear feet of video inspection on the trunk line with diameters ranging in size from 10-inches to 24-inches. He reported that on July 16, 2020, a contractor specializing in large diameter CCTV completed inspection of the interior and the remaining 9,000 feet of sewer line that were too large for District
equipment to video inspect. Director Coats inquired as to the cost of the contractor and Mr. Milroy replied that the cost was approximately $9,800.

ENGINEERING UPDATES

Sterling Natural Resource Center (SNRC)

Mr. Noelte presented information regarding the activity at the Sterling Natural Resource Center. He addressed the concrete placement for the Influent Pump Station, Aeration Basins, Membrane Tanks and UV Channels and noted they were complete. Mr. Noelte shared that the electrical conduit and yard piping were currently being placed and provided exhibits.

East Surface Water Treatment Plant (SWTP) Evaluation

Mr. Noelte stated that the Board had received the findings from the East Surface Water Treatment Plant Evaluation on October 2019 related to the three recommended alternatives for providing an additional 4 MGD of water supply capacity. He discussed that staff conducted a more detailed life cycle cost analysis of the East SWTP and New Groundwater Wells. Based on this analysis showing the two alternatives having similar life cycle costs, a preliminary design report will be prepared for the East SWTP to provide more realistic cost estimates to inform the decision-making process. This effort has a budget of $175,000 in the current fiscal year.

Monitoring for Pressure Spikes in Distribution System

Mr. Noelte reported that the District purchased and deployed five pressure gauges capable of measuring pressure 128 times per second. These devices allow for a high-rate monitoring of pressure spikes in our distribution system. He stated that common causes of pressure spikes are rapid opening or closing of valves and the starting or stopping of pumps. Mr. Noelte explained that a cloud-based vendor system is being utilized to collect and analyze the pressure data.

APPROVE SCHEDULE FOR MEETINGS

Operations and Engineering recommended the committee continue to meet the fourth Monday of every other month. The calendar was approved as presented and approved by unanimous roll call vote.

ADJOURN

The meeting adjourned at 3:07 p.m.

David Smith
Governing Board Member

Ron Coats
Governing Board Member
To: ENGINEERING AND OPERATIONS COMMITTEE
From: General Manager/CEO
Subject: Operations Update on In-house Water Main Projects

RECOMMENDATION:

This report is provided to the Engineering and Operations Committee for its information only.

BACKGROUND / ANALYSIS:

Maintaining the water distribution system is a top priority to ensure reliable water service to District customers. Identifying old water mains with significant leak history is important for budget forecasting and scheduling of replacements. Undersized water mains are also important to identify and plan for upgrades to improve the water delivery in the system.

During the planning stages of fiscal year 2019-20 Field Service Staff identified six cul-de-sacs with undersized 3-inch PVC water mains and no fire hydrants. Del Norte Place, Del Norte Circle, Lomita Place and Val Mar Circle all intersecting with Rockford Ave. Also, Yuma Drive south of Piedmont Drive and 28th street east of Seine. Barton Ave south of Baseline Street has a 4-inch steel water main with a long leak history running under homeowners’ driveways and through front lawns on the far west side of the street with no curbing. All the streets fit the category of undersized main with a recorded leak history and being problematic. In the past these types of projects would go out to bid for a contractor to replace the water mains. Last year it was determined best to have in-house staff address these water main projects. Newer staff will gain knowledge of water main installation procedures from more experienced employees, benefiting the District long term.

Once the budget was approved in-house water mains projects became a group effort. The Engineering department began providing drawings, Operations obtained parts and Public Affairs began preparing notification letters for customers. After the coordination was done field crews started construction.

In 2019 Field Crews installed over 1500 linear feet of new 6-inch ductile iron pipe and six new fire hydrants, completing six individual streets. Barton is the last street with the 4-inch steel main and is 963 feet long with replacement starting at the beginning of 2020. The water main and two new fire hydrants was completed in mid-March, but the entire job was incomplete. Due to COVID this project was put on hold and not finished. Even though the water main was installed crews still need to replace the water service lines that serve the homes. Then make the proper connections to the new water main which makes it active and last abandon the old water main.
At the beginning of September Field crews started replacing the services on Barton and anticipate completion towards the end of the month. The final step of completion will be re-paving the road.

District staff is proud of the accomplishments, takes pride in completing projects to enhance the District’s infrastructure. These water main projects offer value to the District and the community we serve.

**AGENCY GOALS AND OBJECTIVES:**

Goal and Objectives IV - Promote Planning, Maintenance and Preservation of District Resources

b) Enhance Planning Efforts that Respond to Future Demands

**REVIEW BY OTHERS:**

This agenda item has been reviewed by engineering and the executive management team.

**FISCAL IMPACT**

Funds were budgeted in Fiscal Year 2019-20.

Respectfully submitted:

Patrick K. Milroy
Operations Manager

**ATTACHMENTS:**

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<tr>
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<tr>
<td>In-House Water Main Project Presentation</td>
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IN-HOUSE WATER MAIN PROJECTS

September 28, 2020
EAST VALLEY WATER DISTRICT

DEL NORTE PLACE

DEL NORTE PLACE
150 L.F. OF MAIN
(126 L.F. OF 3" PVC - 24 L.F. OF 4" PVC)
8" X 4" TEE: 1 EA.
4" GATE VALVE: 1 EA.
4" X 3" REDUCER: 1 EA.
SERVICE LATERALS: 5 EA.
FOOTHILL ZONE
DEL NORTE CIRCLE

DEL NORTE CIRCLE
150 L.F. OF MAIN
(128 L.F. OF 3" PVC - 22 L.F. OF 4" PVC)
8" X 4" TEE: 1 EA.
4" GATE VALVE: 1 EA.
4"X 3" REDUCER: 1 EA.
SERVICE LATERALS: 5 EA.
FOOTHILL ZONE
LOMITA PLACE

333 L.F. OF MAIN
(309 L.F. OF 3” PVC - 24 L.F. OF 4” PVC)
8” ACP X 4” PVC TEE: 1 EA.
4” GATE VALVE: 1 EA.
4” X 3” REDUCER: 1 EA.
SERVICE LATERALS: 8 EA.

FOOTHILL ZONE
VAL MAR CIRCLE

379 L.F. OF MAIN
(355 L.F. OF 3" PVC - 24 L.F. OF 4" PVC)
8" ACP X 4" PVC TEE: 1 EA.
SERVICE LATERALS: 9 EA.
4" GATE VALVE: 1 EA.
FOOTHILL ZONE
EAST VALLEY WATER DISTRICT

ROCKFORD AVENUE
EAST VALLEY WATER DISTRICT

ROCKFORD AVENUE
ADDITIONAL IN-HOUSE WATER MAIN PROJECTS
YUMA DRIVE

3/4" METERS = 9 EA.
3" PVC MAIN = 295 L.F.
4" MAIN = 24 L.F.
4" G.V. = 1 EA.
4 X 3 REDUCER = 1 EA.
3 X 22.5 VERTICAL OFFSET = 1 EA.
3" PIPE CHANGE = 1 EA.

FOOTHILL ZONE
28TH STREET

246 L.F. OF MAIN
(221 L.F. OF 3" PVC - 25 L.F. OF 4" PVC)
SERVICE LATERALS: 7 EA.
8" ACP X 4" PVC TEE: 1 EA.
4" GATE VALVE: 1 EA.
CANAL ZONE
BARTON STREET

EAST VALLEY WATER DISTRICT

BARTON STREET

963 L.F. OF MAIN
(894 L.F. OF 4" D&W - 69 L.F. OF 6" ACP)
8" X 6" TEE: 1 EA.
6" GATE VALVE 1 EA.
6" X 4" REDUCER: 1 EA.
4" B.O. ASSEMBLY: 2 EA.
SERVICE LATERALS: 30 EA.

LOWER ZONE
EAST VALLEY WATER DISTRICT

BARTON STREET
BARTON STREET
To:  ENGINEERING AND OPERATIONS COMMITTEE
From:  General Manager/CEO

Subject:  Engineering Updates for September 2020

RECOMMENDATION:

This report is provided to the Engineering and Operations Committee for its information only.

BACKGROUND / ANALYSIS:

Updates are provided below for three items that Engineering staff are working on.

Sterling Natural Resource Center:
- The structural shells of the Administration and Operations Buildings are nearly complete.
- The three bio-trickling filter vessels for the odor control system have been installed.
- The base slab for the Main Electrical Building has been constructed.
- Much of the yard piping has been completed.
- The below slab piping for the Biosolids Building has been constructed.
- Aeration piping has been installed in the Aeration Basins.
- Construction progress photos are shown in Exhibit 1.

Water Tank Rehabilitation:
- Plant 108 Reservoir: the 90% bid package for the safety upgrades and coating rehabilitation has been completed.
- Plant 143 Reservoir: consultant services have been engaged to develop a bid package for cleaning this tank and to evaluate the long-term management of the curtain baffle system inside the tank.
- Plant 120 Forebay: after being out of service for a few years due to sand production from the associated well, a condition assessment of this tank has been conducted to identify repairs needed to put back in service.

Plant 134 Granular Activated Carbon (GAC) Project:
- Design-build teams have toured the facility as the proposal phase wraps up for this project.
- The fundamental properties of GAC that makes it an effective treatment technology are illustrated in Exhibit 2.
Respectfully submitted:

Jeff Noelte
Director of Engineering & Operations

AGENCY GOALS AND OBJECTIVES:

Goal and Objectives I - Implement Effective Solutions Through Visionary Leadership

a) Identify Opportunities to Optimize Natural Resources

Goal and Objectives IV - Promote Planning, Maintenance and Preservation of District Resources

a) Develop Projects and Programs to Ensure Safe and Reliable Services
c) Dedicate Efforts Toward System Maintenance and Modernization

REVIEW BY OTHERS:

This agenda item has been reviewed by the executive management team.

FISCAL IMPACT

There is no fiscal impact associated with this agenda item.

ATTACHMENTS:

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<tr>
<td>Exhibit 1 / Exhibit 2</td>
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Exhibit 1: SNRC Photos

Operations Building

Administration Building South Wall
Exhibit 1 continued

Administration Building Roof

Odor Control Vessels
AGENDA DATE: September 28, 2020
SUBJECT: ENGINEERING REPORT FOR SEPTEMBER 2020

Exhibit 1 continued

Main Electrical Building slab rebar

Main Electrical Building concrete slab
Exhibit 1 continued

48” RAS Piping

Biosolids Building Underslab Piping
Aeration Piping
Exhibit 2: Granular Activated Carbon (GAC)
Exhibit 2 continued

Pore structure of activated carbon