

- EVMWD BOARD ACTION
 APPROVED
 APPROVED AS AMENDED
 DENIED
 CONTINUED
-

MINUTES
ENGINEERING AND OPERATIONS COMMITTEE
Regular Meeting
February 4, 2019

The Regular Engineering and Operations Committee Meeting was held at 31315 Chaney Street, Lake Elsinore, California.

Director Present:

Harvey Ryan
Jared McBride

Staff Present:

John Vega, General Manager
Brian Macy, Assistant General Manager – Eng./Ops.
Robert Hartwig, Assistant General Manager- Business Services
Terese Quintanar – District Secretary/Administrative Services Supervisor
Jason Dafforn, Director of Engineering and Water Resources
Parag Kalaria, Water Resources Manager
Tim Collie, Water Operations Manager
Matthew Bates, Engineering Manager
John Manhard, Facilities Manager
Dennis McBride, Wastewater Operations Manager
Andrea Kraft, Engineering Project Coordinator
Greg Morrison, Government Relations Officer

CALL TO ORDER

Director Ryan called the meeting to order at 3:30 p.m.

PUBLIC COMMENTS

The meeting was opened to public comments and there were none.

1. **Department Employee Recognition Program – Going the Extra Mile Award** - Ms. Kraft described the Program, developed by staff to relay appreciation and value. Christina Bachinski is this month's GEM winner.

2. **Amendment No. 1 to the Professional Services Agreement for Engineering Design Services for the Diamond Regional Sewer Lift Station and Dual Force Mains** – The proposed Diamond Regional Sewer Lift Station (DRSLS) and Dual Force Mains (DFM) previously referred to as the Lakeshore Regional Lift Station, will be located at the western end of Malaga Road near the Lake Elsinore Diamond Stadium. The purpose of

the project is to construct one lift station that will ultimately eliminate the use of four existing lift stations.

On March 22, 2018, the Board of Directors approved a Professional Services Agreement with Carollo Engineers, Inc. (Carollo), to perform Engineering Design Services for the Project in the amount of \$1,645,079.

The Notice to Proceed was issued to Carollo on March 26, 2018 with design completion by September 30, 2019.

Due to timing changes of development activity in the area, staff has recognized the need to evaluate existing District facilities to ensure they can accommodate the future development. Additionally, staff has identified that other lift stations need to be downsized due to sewer flow diversion to DRSLs.

Staff requested a cost proposal from Carollo and negotiated the final amount of \$97,041 to perform the work.

Staff plans to present this item at the February 25, 2019 Board of Directors Meeting to recommend approval of Amendment No. 1 to the Professional Services Agreement with Carollo Engineers, Inc. in the amount of \$97,041 which, brings their total contract amount to \$1,742,210. This item, including overhead of \$4,852.00, totals \$101,893.00.

Flows from the Sports Park Complex were taken into consideration for the plan. If that project does not occur, the first phase of the project will need to process lower flows. Staff needs to properly size the pumps. Director Ryan asked about phases. Mr. Dafforn reported that the initial phase is in the 2MGD range. The second phase will need the ability to downsize pumps for lower flow, if needed. The first phase will accommodate existing flows and what we can divert. Pumps will be added as we go. B1 and B2 Lift Stations, along with Summerly will be going away. B1 and B2 needs a segment of pipe installed that needs to handle the flow. This is part of the analysis. The connection fees to be paid by the Sports Complex offsets the costs of this work.

- 3. Public Works Contract with M. Brey Electric, Inc. For the Baker and Bryant Reservoir Electrical Service Project** – The District is continually evaluating alternatives to enhance water quality within the potable water system. One of the most successful ways the District has found is to add mixing systems directly within the reservoir. This Project involves installation of electrical service connections for both reservoirs.

Due to the site characteristics of the Baker Reservoir, the District utilized Southern California Edison (SCE) to prepare the construction plans. The design was completed in July 2018.

On January 23, 2018, the General Manager approved a Professional Services Agreement for Engineering and Design Services with Kennedy/Jenks Consultants, Inc. for the Bryant Reservoir. Design was completed in April 2018.

The Bryant Reservoir project was originally advertised for bid in June 2018 through PlanetBids; however, the single bid received on July 5, 2018 was 275% higher than the engineer's estimate. Staff rejected all bids and elected to package the Baker Reservoir and Bryant Reservoir as one project.

The combined project was advertised for bid on November 21, 2018. The bid opening was held on December 17, 2018 with one (1) bid received by the deadline.

Staff performed a detailed review of the bid documents and checked references. Based on staff's analysis, M. Brey Electric, Inc. was determined to be the lowest, responsive, and responsible bidder.

Staff plans to present this item at the February 25, 2019 Board of Directors Meeting to recommend award of a Public Works Contract with M. Brey Electric, Inc. in the amount of \$310,853.10. This item, including overhead of \$17,343.00, program management services (215 hours) of \$36,000.00, as well as staff time & fringe benefits (76 hours) of \$12,663.00, totals \$376,859.10.

The original bid was \$185,000 for the Bryant Tank. Director Ryan asked what the original budget amount is for both tanks. Mr. Bates answered that \$400,000 in FY 11/12 and \$400,00 in FY 12/13 is for projects such as this, so it could be done in phases. This work is to provide electrical services to the project. There were complications with Edison that caused the project to have a significant delay. Answering a question from Director McBride, Mr. Vega explained that operators need to operate the tanks at particular levels in order to keep water moving, to avoid water quality problems. The mixers allow tanks to be filled to capacity while keeping the water moving to avoid water quality issues.

4. **Professional Services Agreement with Arcadis U.S., Inc. for the Regional Water Reclamation Facility Upgrades and Expansion Project for Construction Management Services** - The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) require the planning and implementation of expansion activities to prevent the plant from operating at or above capacity when a treatment plant is determined to be within four years of reaching its design capacity. The Regional Water Reclamation Facility (RWRF) is currently operating at about 75% of capacity, and planned

development in the region will increase wastewater generation and plant influent flow. The RWRf expansion project will increase the average daily capacity to 12.0 MGD to accommodate the increased flows and includes a new UV system and an additional liquid treatment train.

The RWRf is located in the City of Lake Elsinore. The RWRf Upgrades and Expansion Project involves two separate construction projects. The SCADA construction project (# 75945) will include modification to the DCS controls for the existing treatment plant, the Upgrades construction project (# 75946) will include reliability and redundancy features to upgrade the existing 8.0 Million Gallons per Day (MGD) plant, including a new secondary clarifier. The design for upgrades project will be completed by the first quarter of 2019. The project will then be ready for public bidding to acquire a general contractor to begin construction. Construction for the upgrades project is expected to last 12 months.

The Expansion project (# 75947) will add 4 MGD of capacity and include new Membrane Bioreactor (MBR) and UV systems and an additional liquid treatment train. The project design for expansion project will be completed by the first quarter of 2020. Construction for the expansion project is expected to last 22 months.

Although work for the Expansion project will not commence until 2020, on July 9, 2018, the District solicited proposals to support construction oversight for all three phases of the Project. On August 31, 2018, 3 proposals were received by the deadline from the following firms:

- Arcadis U.S., Inc.
- Black & Veatch Corporation
- Jacobs Project Management Co.

On September 28, 2018, staff met internally to review the proposals and recommended interviews as the next step in the evaluation process. On October 10, 2018, all three firms were interviewed with questions related to scope, team involvement, and fee. Staff re-evaluated the proposals and interview responses. Based on firm qualifications, experience, and project understanding, staff concluded that Arcadis U.S., Inc. is most qualified.

Staff plans to present this item at the February 25, 2019 Board of Directors Meeting to recommend award of a Professional Services Agreement with Arcadis U.S., Inc. in the amount of \$9,468,722.00. This item, including overhead of \$149,688.00, totals \$9,618,460.00.

Director Ryan asked about the loan and principal forgiveness. We will also submit a request for qualifying equipment for the GPR and also for the expansion portion as well. All the projects are SRF funded. To answer a question by Director McBride, as part of the Master Plan, when we reach 75% of capacity, the Regional Board requires us to plan for the next phase

of expansion. We went through the exercise in 2016 and the decision was to upgrade to 4 MGD. All sewer flows will eventually flow to the Regional Plant. There will not be expansions at any of the other facilities. There are three tasks: upgrading controls, instruments and equipment replacements, and the 4 MGD expansion. The design will be completed in late 2020 and total completion in late 2022, for a total of \$170M. Ms. Armstrong explained funding for maintenance versus expansion costs, and that the capacity fee can only pay for growth related projects. The Capacity Fee is based on a 25-year Master Plan. General discussion followed regarding our efforts to balance debt funding and rate-payer funded costs.

5. **Pre-Selection Purchase Agreement with Evoqua Water Technologies for Furnishing Mempulse® Membrane Bioreactor System for the Regional Water Reclamation Facility Upgrades & Expansion - Package 2** – EVMWD is undergoing a project to expand and upgrade the Regional Water Reclamation Facility (RWRF) in two phases. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) require the planning and implementation of expansion activities to prevent the plant from operating at or above capacity when a treatment plant is determined to be within four years of reaching its design capacity. The RWRF is currently operating at about 75% of capacity, and planned development in the region is expected to increase wastewater generation in the District's service area and ultimately increase plant influent flows.

The RWRF Upgrades and Expansion Project involves two separate construction projects. The Upgrades Project will provide reliability and redundancy improvements to the existing plant while upgrading the control system. The expansion project will add 4 million gallons per day (MGD) of capacity.

The RWRF is located in the City of Lake Elsinore. The RWRF expansion project will increase the average daily capacity from 8.0 to 12.0 MGD and include new Membrane Bioreactor (MBR) and UV systems and an additional liquid treatment train. The design for upgrades project will be completed by the second quarter of 2019. The project will then be ready for public bidding to acquire a general contractor to begin construction. Construction for the upgrades project is expected to last 12 months. The project design for expansion project will be completed by the first quarter of 2020. Construction for the Expansion project is expected to last 22 months.

To achieve the increased capacity of the RWRF, expansion project includes the construction of a 4 MGD MBR treatment train (Train C). There are multiple MBR systems available on the market. Each has design features that are unique to the equipment manufacturer. Trying to

accommodate all manufacturers during design can lead to additional change orders and schedule delays during construction.

The pre-selection of the MBR equipment allows the coordination required to properly design the MBR facilities and avoid changes during construction while ensuring the District receives competitive bids and confirmed pricing for the equipment. The equipment will be purchased by the selected contractor after the bidding process which is anticipated around last quarter of 2020.

The associated Request for Proposals (RFP) was advertised on August 30, 2018. Two proposals were received by bid closing on October 29, 2018. Bid proposals were evaluated based on capital costs, life cycle (20 year) costs, system configurations and operation, manufacturers' experience and references, and product support. Through the evaluation process, Evoqua's proposal ranked highest.

Staff plans to present this item at the February 25, 2019 Board of Directors Meeting to recommend approval of a Pre-Selection Purchase Agreement with Evoqua Water Technologies for the Pre-Selection of MemPulse® Membrane Bioreactor Systems. This item will be included in the construction bid anticipated to be published late in 2020. At that time, the cost of the equipment in the amount of \$2,290,002 will be incorporated in the award of the construction contract.

6. **Purchase Agreement with Technology International, Inc. for an Oil-Less Rotary Screw Compressor** – On August 8, 2018, staff advertised a request for bids for purchase and delivery of a 50-HP oil-less rotary screw compressor. This compressor will be used to pump air into the Canyon Lake Water Treatment Plant intake area to improve water quality and algae control to assist in THM reductions.

One bid was received by the deadline of August 17. Staff carefully reviewed the bid from Technology International, Inc. and determined they are a responsive, responsible bidder.

Staff plans to present this item at the February 25, 2019 Board meeting to recommend approval of a Purchase Agreement with Technology International, Inc. in the amount of \$58,765.

7. **Integrated Resource Planning Project Update (IRP)**- In April 2015, staff identified local resources that could be leveraged to reduce our dependence on imported water. In 2016, IEC was chosen to oversee the project, including Flagler, Palomar, Lee Lake, Warm Springs, Canyon Lake Master Plan and SARCUP. Since that time, the contract has been amended once. Mr. Dafforn presented information regarding ongoing and completed projects. He explained that staff will be requesting a second

amendment for \$1,490,600 to cover project management needs over the next two years. Director Ryan asked for the ratio of the cost of IEC compared to project costs, and review of needs of hiring permanent staff versus keeping project management consultants. Staffing recommended is based on long term needs of CIP projects for years to come. Director Ryan asked to see the overall costs per asset compared to the ROI (Wells for example). Director McBride requested more information of staff and consultant costs versus project costs.

8. Engineering Department Performance Measures and Project Updates

Mr. Kalaria reported that there are 31 Capital Improvement Projects underway. We have two project management firms working with us: Carollo and IEC. Palomar Well No. 2 Drilling Phase 2 commenced in January and should be completed by April. Samples are needed for Phase 3 design, to be completed in June 2019. Lee Lake Wells (formerly the Barney Lee Wells) Geotech work is done along with preliminary DWSAP submittal for the Lee Lake Wells (formerly the Barney Lee Wells). CEQA process is in progress. The Groundwater Basin study for the Warm Springs Basin wells is complete. Staff is seeking property agreement for this at this time. Mr. Kalaria reported on the Regional Water Reclamation Facility Expansion and Upgrades Project. Bids for the Horsethief Canyon Water Reclamation Facility Expansion and Upgrade project will be due shortly after February 28th. Staff anticipates the completion of the LE Outfall Channel in May 2019. Director McBride asked if staff will do some kind of outreach to announce completion of this project and if the City will be part of that.

Mr. Bates continued by reporting on several other projects underway. There are no change orders this quarter.

9. Operations Department Performance Measures – Mr. Manhard reported on mechanical maintenance for wells, reservoirs, WWTP, WTP, and other tasks. Planned work is at 60%. Site visits are necessary at facilities because there is a lot of information that cannot be relayed electronically. Staff checks for vandalism, leaks, chemical dosing for odors, homeless property and equipment use, etc. He explained various areas where staff is trained, such as confined space, arc flash, and others. In all areas, planned labor takes up approximately 88% of staff's time.

10. Consider Items for Board Review – None at this time.

11. Discuss Future Agenda Items – None at this time.

12. Other – None.

13. Adjournment at 5:30 p.m.