

**MINUTES OF THE ENGINEERING SERVICES COMMITTEE MEETING
OF THE RAINBOW MUNICIPAL WATER DISTRICT
DECEMBER 6, 2017**

1. **CALL TO ORDER** – The Engineering Services Committee Meeting of the Rainbow Municipal Water District on December 6, 2017 was called to order by Vice Chairperson Stitle at 3:00 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028. Vice Chairperson Stitle presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

Present: Member Stitle, Member Taufer, Member Brazier, Member Ratican, Member Robertson, Member Marnett, Alternate Nelson

Also Present: General Manager Kennedy, Associate Engineer Powers, Engineering Technician Rubio, Interim Engineering Manager Gerdes.

Absent: Member Prince, Alternate Kirby.

There were no public members present.

4. **SEATING OF ALTERNATES**

Mr. Nelson was invited to take a voting seat.

5. **ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

There were no changes.

6. **PUBLIC COMMENT RELATING TO ITEMS NOT ON THE AGENDA**

There were no public comments.

COMMITTEE ACTION ITEMS

*7. **APPROVAL OF MINUTES**

A. November 1, 2017

Motion: Approve the minutes as altered.

Action: Approve, Moved by Member Brazier, Seconded by Member Marnett.

Vote: Motion passed (summary: Ayes = 5, Noes = 0, Abstain = 2).

Ayes: Member Brazier, Member Taufer, Member Ratican, Member Marnett, Member Nelson.

Abstain: Member Stitle, Member Robertson.

8. WATER CIP UPDATE

Mr. Powers summarized the current water CIPs as follows:

- **Bonsall Basin Desalter:** Mr. Kennedy said one of the current challenges of the Bonsall Basin Desalter project was that earlier studies showed a considerable volume of recoverable water based on projections of total water use of up to 25K AF yearly; although currently projections are down to 14K AF yearly. He pointed out securing water rights was an added issue. He said the goal was to work with all involved (water authorities, land owners, tribes) and come to an agreement, prior to investing additional funds. Discussion ensued.
- **Gird / Monserate Hill:** There was a design change to take care of the environmental issues. Staff currently reviewing the final design. Mr. Kennedy said staff was considering installing a bridge similar to the one installed at Moosa Crest.
- **Ascot Meadows Pressure Reducing Stations (PRS):** Replacement of existing PRS. Design has been finalized and easement obtained from the HOA. Project ready to be bid out for construction.
- **VVV PRS:** There are three total PRS. One was installed by operations staff and two are pending.
- **Water Condition Assessment:** Consultant working on the risk assessment, which will provide a list of the top priority pipeline replacements. Mr. Kennedy mentioned the District was working with the budget and finance committee and Raftelis to ensure appropriate project planning and execution.
- **Knottwood Way:** Near completion, waiting on record drawings prior to close out.
- **Rainbow Heights Pump Station Rehabilitation:** 100% design and scheduled to bid out in January 2018.
- **Moosa Crest Pipeline:** Design change order was approved by the Board on 12/5/17.
- **New PRS:** Will begin work when the other high priority PRS are installed. Mr. Kennedy noted pressure control and regulation are important to maintain. He pointed out pipes do not last as long in higher pressure areas.
- **SDCWA Emergency Pump Stations:** Permanent pumps will replace temporary pumps leased during SDCWA shutdowns. The locations are currently being reviewed.
- **Weese:** Awaiting 60% submittal for review.

9. WASTEWATER CIP UPDATE

Mr. Powers summarized the current wastewater CIPs as follows:

- **Highway 76 Upsized District Sewer Pipeline:** Contractor is currently completing the punch list items for project close out.

- Sewer System Flow Monitoring: Reviewing the best method to obtain flow monitoring data. Obtaining flow monitoring data would allow the District to maintain the wastewater system better, detect leaks, and review pump performance.
- Sewer Outfall: Project on hold for equalization basin alternative feasibility.
- Lift Station 1: Lift Station replacement alternatives currently under review by Staff.

10. DISCUSSION ABOUT METER REPLACEMENT AND METER RIGHTSIZING

Mr. Powers provided a presentation on how the District was tackling water losses. He described the issues of water loss stating that in the early days of the District the cost of large meters were not much higher than the smaller meters because the cost only included the meter and not the capacity, as a result customers chose to install oversized meters instead of the appropriate size for their agricultural needs. He said the cost of water at the District has increased significantly over the years due to the increases on imported water, causing a large number of growers to move out of the District. He mentioned water losses are occurring due to more homes replacing the groves and using less water through oversized meters which are not registering the low flows. He pointed out the drought and water conservation have created lowered demands. He discussed the following points:

- Large mechanical meters have less accuracy at low flows
- Large meters and low consumption lead to high apparent losses
- Customers claimed that installing smaller meters cost them an asset
- The capacity fee structure needed a change

Mr. Kennedy said with the new capacity rate structure the fixed fee would have a variable component based on a peaking usage multiplier, where large capacity users would pay more and small users would pay less regardless of the meter size. He mentioned meters do not over read normally meters would under read. He said there is a significant revenue loss from inaccurate meters. He pointed out the revenue recovered from the water loss would pay for the meter replacements. Discussion ensued.

Mr. Powers stated based on the sample of meters tested for accuracy using AWWA guidelines it was determined that 6.4% of flow was not being captured due to meter inaccuracies. He said the potential revenue enhancement of replacing 1-inch, 1.5-inch and 2-inch meters on average increase accuracy by 4.4%, with an approximate annual revenue recovery of \$904,563. Discussion ensued.

Mr. Powers summarized the presentation by discussing the reduction of apparent losses as follows:

- Customer meter inaccuracies are the largest contributor to water losses at the District.
- Expect to recover 737 AF/yr
- Reduce apparent losses 70%
- Reduce total water losses 45%

Mr. Kennedy mentioned the District has been working with ABM a company that funds energy efficient projects and are compensated out of the savings. He stated ABM would be presenting an investment grade audit with projections on the meter replacement analysis. He said it would also include replacing meters, downsize oversized meters, install new customer shut off valves, install new boxes, and remove all District regulators. He said the District would be notifying the

customers of the regulator removals and providing a onetime offer to replace the regulator downstream of the meter on the condition the customer would take on the responsibility of the regulator. Discussion ensued.

Mr. Kennedy asked the committee's opinion regarding moving the pressure regulator to a separate box or to place it in with the meter box.

Mr. Robertson recommends adding the two boxes. Mr. Kennedy agrees with Mr. Robertson, although he said on the other hand one box was most cost effective, installing the second box would be faced with many variables.

Mr. Marnett suggested installing another box with another pressure regulator at the customer's cost. Mr. Kennedy mentioned the District was several months away from making a decision.

Mr. Robertson and Ms. Brazier left the meeting at 4:53 p.m.

11. DISCUSSION AND POSSIBLE ACTION TO APPOINT 2018 COMMITTEE OFFICERS

Agenda item was postponed for the next Engineering Committee Meeting.

12. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT SCHEDULED ENGINEERING SERVICES COMMITTEE MEETING

The following agenda items were suggested for the next Engineering Committee Meeting:

- HDR Condition Assessment
- ABM

13. ADJOURNMENT

Motion: To adjourn the meeting.

Action: Approve, Moved by Member Nelson, Seconded by Member Stitle.

Harry Stitle, Committee Vice Chairperson

Dawn M. Washburn, Board Secretary