

**MINUTES OF THE ENGINEERING SERVICES COMMITTEE MEETING
OF THE RAINBOW MUNICIPAL WATER DISTRICT
JANUARY 3, 2018**

1. **CALL TO ORDER** – The Engineering Services Committee Meeting of the Rainbow Municipal Water District on January 3, 2018 was called to order by Chairperson Prince at 3:00 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028, Chairperson Prince presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

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

Also Present: General Manager Kennedy, Associate Engineer Powers, Engineering Manager Kirkpatrick, Eng. Tech Rubio.

Absent: Alternate Kirby, Interim Engineering Manager Gerdes.

There was one public member present: Mr. Spencer (HDR, Inc.)

4. **SEATING OF ALTERNATES**

There were no seating of alternates.

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

There were no changes to the agenda.

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

There were no public comments.

COMMITTEE ACTION ITEMS

*7. **APPROVAL OF MINUTES**

A. December 6, 2017

Approval of minutes was deferred to next month's meeting.

8. **UPDATE ON LILAC FIRE ACTIVITIES**

Mr. Kennedy provided Lilac Fire Perimeter maps delineating the areas affected by the Lilac fires. He said the fire spread quickly causing loss of power and evacuation of the District, although the District's generator maintained the power until it was regained. He mentioned all the vehicles were also relocated. He pointed out staff ensured all the tanks had enough water. He said the Emergency Operations Command (EOC) was activated and two Incident Commanders were assigned to ensure there was 24 hour coverage.

Mr. Kennedy provided the following information and lessons learned:

- Rancho Monserate Mobile Home Park was experiencing pressure issues due to the large flows of water focused in the area. District staff increased the pressure to ensure constant high flows, although tragically many homes were lost.
- There were 8 mainline breaks and many customer line breaks. Unfortunately, one house was flooded due to a mainline break costing the District approximately \$60K. The mainline would be moved to a new location pending replacement design.
- Mainline breaks were mostly caused by water hammer. Local fire fighters were aware of the high water pressures in the area, but fire fighters from out of state were not.
- There were no District structures lost.
- Learned not to use natural gas backup generators, due to the gas being shutoff.
- The structure of the EOC could use improvement with training and preparation of crew turn arounds, backup personnel from other agencies, setup a TV in a larger room with SCADA/GPS systems.
- Easements, previously covered in brush were cleaned by the fire and should be marked out and maintained.

Mr. Kennedy said the lessons learned and required improvements would be addressed. Discussion ensued.

9. HDR CONDITION ASSESSMENT UPDATE

Mr. Spencer the consultant from HDR, provided a presentation regarding the water pipeline investment program report. He pointed out the District owns about \$400M in water main infrastructure with a finite life that deteriorates over time reducing service levels. He said age alone was not an accurate correlator to assess the condition of the water mains. He mentioned evolving from an age base program to a performance and condition base program to ensure wise investments. He said ultimately the program goal was to cost effectively sustain desired service levels out into the future. He continued, in order to achieve the goals of the program the following steps would be required:

- Optimizing collection of the right data
- Determining the appropriate reinvestment level
- Focus those investments to get the most bang for the buck
- Developing a staff owned program, not a static project

Mr. Spencer said in order to understand the condition of the District's system, historic break data was digitized, consolidated and cleansed to support data driven decision making and to forecast breaks. He continued the data was also used for various investment scenarios to find an appropriate balance between service levels and affordability for the customers. He said included in the current proposed rate structure was a gradual increase of half a million a year over the next six years to maintain a sustainable investment level, and allowing time to replace the water mains. Discussion ensued.

Mr. Spencer said developing the risk model would assist in prioritizing the sustainable investment level. He pointed out about 60% of the system has never experienced a break and data shows that 40% of all breaks occurred on only 5% of the system. He also mentioned 80% of the historic breaks were on 20% of the water mains by length, which indicates that a small cohort of water mains were responsible for most of the breaks. He said focusing on a small portion of the system would yield more return on investment.

Mr. Spencer explained the reasons some pipes were deteriorating faster than others. He said there were two primary reasons. The first was due to deficient contractor work especially at the joints and the second reason was due to pipe characteristics causing some to deteriorate faster, especially with a combination of high pressure and soil corrosivity. Discussion ensued.

Mr. Spencer discussed the prioritizing of investments and the development of a risk map based on the water main analysis. He pointed out that these projects for pipeline replacement would require internal commitment to execute at the most cost-effective method. Mr. Kennedy said the District would have to develop a clear plan and target the most critical areas. He mentioned starting with the following: checking pressure areas, environmental impact report, project planning, placing pipes in better places, etc. Discussion ensued.

Mr. Kennedy said the District was reserving funds, although the rates would need to be increased to cover the cost of this project. He mentioned he would inform the Board that the Engineering Committee reviewed the report and had no objections.

Mr. Prince asked that future savings be factored into the report. Mr. Kennedy replied some numbers can be put together, although it would be difficult to predict the future. Mr. Spencer stated the industry has struggled with a strictly financial model to get a true return on investment for water main infrastructure. He said it was difficult to predict breaks and even more difficult was quantifying the value of the breaks. Discussion ensued.

10. ABM UPDATE

Mr. Kennedy stated that 35 radio reads were installed last month in Brookhills and 250 more units would be installed in Vista Valley and Rainbow Hills.

11. DISCUSSION AND POSSIBLE ACTION TO APPOINT 2018 COMMITTEE OFFICERS

Mr. Kennedy said there was an opportunity to select a new Chairperson and Co-Chairperson. Mr. Robertson said he was content with the current appointees and recommends no change

Motion: *Leave appointees as status quo.*

Action: *Approve, Moved by Member Robertson, Seconded by Member Stitle*

Vote: *Motion carried by unanimous vote (summary: Ayes = 7).*

Ayes: *Member Prince, Member Stitle, Member Brazier, Member Taufer, Member Ratican, Member Robertson, Member Marnett.*

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

The following agenda items were suggested:

- HDR Feedback
- AMI Update
- Gird to Monserate Update
- Lift Station 1 Replacement
- Development Update

Mr. Kennedy said one of the Board member's recommended including Operations information in one of the committees. He suggested expanding the Engineering Committee to include Operations information, which would be reviewed and addressed as an admin code change.

13. ADJOURNMENT

Motion: To Adjourn the meeting.

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

The meeting adjourned at 5:15 p.m.

Timothy Prince, Committee Chairperson

Dawn M. Washburn, Board Secretary