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Seal Rock Water District

General Manager's Report:
Board Meeting August 10, 2023

This report is an executive summary provided with this Board agenda to Commissioners with recommended actions if any. Detailed information, staff reports, and supporting materials are provided within the full agenda packet.

PHASE-IV BEAVER CREEK SOURCE WATER PROJECT:

Jacobs engineers and district staff met with representatives for USDA-RD on August 7th to perform the 11-month warranty walkthrough. Operators pointed out several concerns the district has experienced during the past 11 months of operation to include: various pump failures including chemical feed pump failures. Automatic valves not functioning on command or sticking open/shut. Membrane filtration skids that have been difficult to clean, restricting production.

Jacobs Lead Membrane Engineer was on site in July to evaluate individual membrane modules to determine how to effectively clean the filtration units for best performance and to maintain the health of the membranes. While we wait for a comprehensive report, the engineers did make some recommendations for adjusting cleaning protocols, which have been beneficial in extending the length of time between cleanings.

Paul Muller, Jacobs Engineering prepping a membrane module for evaluation.

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Due to raw water quality issues and an increase in organics, operators took steps to engage the State (DEQ) in an effort to have raw water on Beaver Creek tested for the presence of Hazardous Algae Bloom (HAB). Raw Water Analysis provided by DEQ includes testing for Cyanotoxins to include Cylindrospermopsin and Microcytins. The district provided two raw water samples which were both analyzed, and the results were negative, or non-detect (ND). Testing provided by DEQ is free of charge. However, if future testing includes a positive result the district would be subject to the states HAB's regulations. Results of testing are included in the board packet and will be provided in future CCR reporting.

Update on continued server failure at the WTP with notes between engineer and operators:

1. **Thurs 8/3/2023 afternoon/evening working remotely: limited HMI, no historian:**
    a. SERVER1: **Down**.
       Larry texted me and indicated very slow HMI (Human Machine Interface) operation and workstation 2 kicked him out a couple of times. I remotely connected and discovered Server 1 was offline. I opened a ticket with Dell Technical support and collected event log data from SERVER1 to plan necessary repair steps. Dell requires the owner or owner rep to first take troubleshooting steps to determine what a field tech might need to do. Scheduled to work with Dell technical support on 8/4/2023 with me at the site.
    b. SCADA UPS: **Unknown issue**.
       While talking with Larry on the phone I could hear a beeping sound which was the UPS alarm. It could not be silenced. It was online but had an unknown issue.
    c. SERVER2: **Online**.
       No problems, Plant was still operational with Server 2 in operation albeit with a very slow HMI, no Historical data collection, and limited remote access.

2. **Fri 8/4/2023 onsite 9 am-2:30 pm: limited HMI, no historian, UPS problem**
    a. SERVER1: **Down**.

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While onsite with Dell tech support on the phone I went through all the troubleshooting steps recommended by Dell and with their assistance determined a disk power supply issue. Dell will be onsite today to swap out a disk power supply board and all associated cables. They are also bringing a motherboard in the event that replacing the other items does not resolve.

    b. SCADA UPS: **Unknown issue**

Took pictures of UPS display, and reviewed manual. Determined that the UPS (Uninterruptible Power System) was operating in bypass mode (no battery backup but with passive line filtering). Called UPS tech support and waited for a reply. No response while onsite and left the site around 2:30 pm. Tech called, and we made contact around 3:30 pm. I sent photos of UPS displays. He confirmed it was operating in bypass mode but what was being shown on the display was irregular and that there was certainly an issue. He recommended turning UPS off, removing power, and bringing it back online to see if that would clear the problem.

    c. SERVER2: **Online**

Plant was still operational with Server 2 in operation albeit with a very slow HMI, no Historical data collection, and limited remote access.

3. **Sat 8/5/2023 evening working remotely: Limited HMI, no historian, UPS problem**
   a. SERVER1: **Down**
   b. SERVER2: **Online**

Received a call from Adam that they were no longer able to remote into the SCADA system. I was still able to remote in and access the HMI from the Engineering Workstation. Planned to talk with Larry Sunday morning to possibly get him remote access or to have him tell me what they would want to do operationally.

   c. SCADA UPS: **Unknown issue**

4. **Sun 8/6/2023 morning working remotely: No HMI, no historian, UPS problem**
   a. SERVER1: **Down**.
   b. SERVER2: **Down**. Received a call from Adam around 7 AM. Contacted Adam a little after 8 AM. He returned to the plant, and we discovered SERVER2 was powered off. I had him try to power it on and it would not turn on.
   c. SCADA UPS: **Unknown issue**.

5. **Sun 8/6/2023 afternoon working onsite: Limited HMI, no historian, UPS resolved**
   a. SERVER1:**Down**.
   b. Operations: I met Chris onsite at 1 PM. I was able to initiate the Lost Creek storage auto-fill sequence from the PLC program.
   c. UPS: **Operating normally.**

With both servers down I took the opportunity to attempt the UPS reset as described above (cycling power). This reset the UPS and the alarm was cleared. UPS displayed information normally. Took additional videos and photos for UPS tech support if needed. Will monitor the status of UPS going forward to see if problems return.

   d. SERVER2: **Online**.

Called Dell tech support and opened a support ticket. With their assistance, we determined the server was powering on/off repeatedly every 40-150 seconds since late Saturday evening. I took troubleshooting steps at Dell tech direction to do a cold power reset. This resolved the issue. We reviewed all event logs and no entries were pinpointing what caused the issue. Tech indicated a cold power reset resolves this type of problem about 10% of the time. Prior to restarting all of the software we ran diagnostic routines and rebooted the server 4 times to try and get the server in the same state. With it operating correctly we decided to run the software

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and monitor the operation. If no issues for the next week, Dell will close the ticket. If issues arise, I'll contact Dell.

6. **Mon 8/7/2023 morning working remotely: Limited HMI, no historian, UPS resolved**
   a. SERVER1: **Down**. Dell is scheduled to be onsite between 4 PM and 5 PM to repair.
   b. SERVER2: **Online**

      Operational this morning with no issues overnight. Plant is still operational with Server 2 in operation albeit with a very slow HMI, no Historical data collection, and limited remote access.
   c. UPS: Have not had a chance to check functional status yet.

Other notable activities for the month include:

- o Attended meetings with engineers to discuss membrane module onsite testing.
- o Met with representatives from USDA-RD and Engineers to perform the 11-month warranty walkthrough.
- o Participated in interview panel for the City of Newport's Public Works Directors Position.
- o Met with representatives from USDA-RD to provide project status reports.
- o Attended Mid Coast Water Conservation Consortium Meeting.
- o Met with property owners in the district to discuss water quality issues.
- o Attended OWRD Place-Based Planning Meetings.
- o Met with GSI Water Solutions to review progress on MC-WPP, and the Water Management and Conservation Plan, and Beaver Creek streamflow and temperature monitoring.
- o Attended SDAO Legislative Water Committee meetings.
- o Attended the Monthly Oregon Water Utility Commission (OWUC) meeting.
- o Attended the Lincoln County Drought Committee meeting.

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