1037 NW Grebe Street
Seal Rock, Oregon 97376
Phone: 541.563.3529 – Fax: 541.563.4246
www.srwd.org

Seal Rock Water District

General Manager's Report:
Board Meeting – August 13, 2026

This report provides an executive-level update on district operations, source water management, staffing, and ongoing initiatives. Additional details and supporting documentation are available in the full agenda packet.

Water Treatment Plant Membrane Module Failure – July 15, 2026:

On the morning of July 15, 2026, the District experienced a significant equipment failure at the Membrane Water Treatment Plant when one of the ultrafiltration membrane modules suffered a catastrophic structural failure while the treatment plant was operating under normal conditions.

The membrane module housing ruptured unexpectedly, causing a substantial volume of water to be released into the membrane gallery. The resulting discharge exceeded the capacity of the floor drainage system and flooded portions of the treatment building, including the operations room and electrical room. Plant staff responded immediately, safely shut down the affected treatment process, isolated the damaged equipment, and began recovery efforts to minimize additional impacts to the facility.

Fortunately, no employees were working in the immediate vicinity of the membrane skid when the failure occurred, and no injuries resulted. However, the nature of the failure raises significant concerns regarding employee safety. Had an operator been standing adjacent to the membrane skid at the time of the rupture, the force of the failure and sudden release of water could have resulted in injury. Ensuring the safety of District employees remains our highest priority.

This event is particularly concerning because the ultrafiltration membrane system normally operates at pressures of less than 30 pounds per square inch (psi). Under those operating conditions, a catastrophic pressure vessel failure would not ordinarily be expected. As a result, District staff immediately initiated a comprehensive technical investigation with the project engineer, equipment manufacturer, and system integrator to determine the root cause of the failure.

The District has requested that the engineering team conduct a thorough review to determine:

- The root cause of the membrane module housing failure.
- Whether similar failures have occurred at other facilities utilizing the same equipment.
- The operating pressures and system conditions immediately preceding the incident.
- Whether pressure spikes, transient hydraulic events, valve sequencing, water hammer, or control system anomalies contributed to the failure.
- A reconstruction of the sequence of events using SCADA historian data, PLC data, and equipment diagnostics.
- Why the control system did not generate an operator alarm prior to or during the incident.
- Whether alarm setpoints functioned as intended and whether additional alarms or automatic shutdown logic should be implemented.
- What engineering or operational changes are necessary to reduce the likelihood of a similar event occurring in the future.

While the investigation continues, the affected membrane skid has been restored to service with heightened operational oversight and increased monitoring by District operators. Additional inspections of the remaining membrane modules have also been carried out to verify their integrity.

The District is committed to fully understanding the cause of this failure and implementing any corrective actions necessary to ensure the continued safety, reliability, and long-term operation of the Membrane Water Treatment Plant. Staff will continue working closely with the design engineer, equipment manufacturer, and WesTech consultants until the investigation is complete and all recommended corrective measures have been evaluated and implemented.

The Board will be kept informed as additional information becomes available, including the engineering team's findings, conclusions, and any recommended operational or capital improvements resulting from the investigation.

Water Treatment Plant/Distribution Cyber Security Threats:

Staff would like to make the Board and our customers aware of a recent joint Public Service Announcement issued by the Federal Bureau of Investigation (FBI) and the U.S. Environmental Protection Agency (EPA) regarding an increase in cyberattacks targeting Operational Technology (OT) systems used by water and wastewater utilities. The advisory identifies malicious actors targeting internet-facing Programmable Logic Controllers (PLCs), resulting in operational disruptions at utilities in multiple states.

Immediately upon receiving this notification included with this report, District staff initiated a review of our operational technology environment in coordination with our Information Technology (IT) consultant, Carezian, and our Operational Technology (OT) consultant, The Automation Group (TAG). Together, we are

evaluating our systems against the recommendations contained in the federal advisory and confirming that appropriate safeguards are in place.

Our review includes verification that:

- No PLCs or other OT devices are directly exposed to the public internet.
- Remote access to District control systems is appropriately secured through firewalls, VPNs, jump hosts, or other secure access methods.
- Strong password policies and multi-factor authentication are implemented wherever applicable.
- Firewall rules and access control lists appropriately restrict communications to authorized devices and users.
- PLC logic, configurations, and project files are protected against unauthorized modification and can be validated against known-good backups.
- Logging and monitoring capabilities are sufficient to detect suspicious activity.
- The District maintains the ability to safely operate critical facilities manually should a cyber incident impact remote monitoring or control.
- Any legacy or end-of-life OT equipment has been identified for additional protection measures or future replacement planning.

Recent developments have reinforced the importance of maintaining strong cybersecurity protections for the District's operational technology (OT) and SCADA systems. On August 7, 2026, Oregon Public Broadcasting reported that state officials confirmed an Oregon drinking-water provider experienced unauthorized access to its operational technology during a July cyber incident. The affected water system has not been publicly identified. The FBI has reported that recent attacks against water and wastewater systems in multiple states included unauthorized access to internet-connected programmable logic controllers (PLCs), in some cases resulting in the loss of monitoring and control functionality, pressure loss, and flooding. In response to these developments, the District continues to work with its IT and OT consultants, Ken Ezeh of Carszian and Gary Ginks of The Automation Group, to evaluate the District's cybersecurity posture, including remote access, PLC and SCADA security, network protections, system backups, and operational contingencies.

In addition to these technical reviews, District staff and water system operators continue to actively monitor system performance and remain on a heightened state of awareness. We are maintaining increased vigilance for any unusual network activity or operational anomalies and will continue working closely with our IT and OT consultants to reduce and eliminate risks associated with cyber threats.

At this time, the District has experienced no known cybersecurity incidents or operational impacts related to the activity described in the federal advisory. Nevertheless, we take these warnings seriously and will continue to implement cybersecurity best practices to protect the reliability, integrity, and resilience of our water system. I will keep the Board informed of any significant developments or additional recommendations resulting from our ongoing review.

Additional District Activities & Updates:

Staff/Safety Meeting: Continued emphasis on safety culture and best operational practices.
Water Conservation Coordination: Participated in discussions with the Lincoln County Water Conservation Committee.
SDAO Nominating Committee: Participated in review of applications to serve on the SDAO Board.
Newport CSA Island Annexation: Staff met with potential Bond Council regarding Newport Island annexation of properties in the South Beach City Service Area.
Drinking Water Protection Plan: Staff continue to work with Oregon Health Authority and Department of Environmental Quality on the Drinking Water Protection Plan.
Water Master Plan: Staff met with engineers to discuss progress on the development of the WMP.
Mid-Coast Water Planning Partnership: Participated in the monthly regional partnership meeting.
SDAO Legislative Committee Meeting: Participated in the SDAO legislative update.
SDAO Conference Committee Meeting: Participated in the SDAO Conference Committee.
Lincoln County Drought Committee: Participated in the Drought Committee discussion on July 28th with state and local stakeholders in the region.
SDAO Employee Recruitment Panel: Reviewed applications to fill Public Finance Associate position.
Water Treatment Plant: Attended several meetings with engineers to discuss WTP Membrane Module issues and restarting the engineers' monitoring period for the WTP operation.

SRWD continues to actively manage operational challenges, regulatory responsibilities, and infrastructure needs while maintaining our commitment to delivering safe, reliable water service to the community. Staff remain focused on continuous improvement and advancement of district goals.