

# Water System Presentation for Feb. 21, 2026

## Water System Replacement Planning to Date

Presented by: Jim Segaar, Water System Program Manager

### Initial inputs to planning

The Board of Directors has been discussing the state of the water system for more than a decade. Two documents have been often referenced:

- Water System Assessment - 2013, Pace Engineering
  - Recommended widespread work on the system
  - None of the recommendations have been implemented

- Annual Reserve Study - mandated
  - 2025 - Recommends reserves of \$1.5 million
  - Work identified would replace the water main pipes throughout the system
    - Also replace specific equipment
  - Special Assessments were approved to:
    - Fund some initial work
    - Build reserves to fund major work.
  - To date we have reserves of: Capital: \$140,000
    - General: \$95,000

Some initial replacement work was undertaken in 2023 and 2024 focused on the Transmission Line from Well #3 to the Reservoir. Pipe was replaced from Well #3 in Cottonwood Meadow to Aspen Lane in Green Meadow. Total cost was \$144,000 for about 1,000 feet of pipe.

The Board identified the need for an overall plan for the Water System to be more systematic and proactive with work going forward. I began working with Board in late 2024. People involved included:

- Kris Borgias - subject matter expert about the water system
- Pete Soderquist - subject matter expert about the water system
- Doug Hale - current water system manager
- Mark Ryan - government funding research
- Laron Eakins - private funding research
- Bob Rohde - earlier research into government funding
- Jason Williams, Dick Nova, Jim Ginn - Board members
- Jim Segaar - program manager

Our initial analysis led to creation of a plan to replace water main pipes throughout the system over a period of years. Our first plan prioritized work based on: Single point of failure analysis, number of homes potentially impacted by various failures, and lead time required to make repairs/replacement.

Since that initial analysis we have continued to do research and learn more about the water system with the intent of modifying and improving that first plan. This modification is still underway. We have identified the following additional drivers for work going forward:

**Leakage - State Law:** The Water Use Efficiency Act of Washington State specifies that water systems should leak no more than 10 percent of the water they pump, allowing up to 20 percent leakage under certain circumstances. In recent years our system has leaked as much as 75 percent of the water pumped. Leaks have been fixed for years when they can be located. Currently the system leaks between 30 and 50 percent of the water pumped, depending on a number of factors. The state gave the Association until 2017 to meet the 10 percent target. In recent years the Board adopted a 20 percent target for leakage. To date we have never met that target.

**Leakage - Cost:** Pumping water requires electricity, and produces wear and tear on pumps and other equipment. When we pump water back into the ground through leaks in the pipe it increases the cost of electricity and the wear and tear on the system. These costs are relatively low at this point, but are ongoing and could increase over time.

**Reliability:** Repairs to the water system can require that the system be turned off. When major leaks occur, these outages may not be scheduled, and water can be turned off for hours or days with little or no notice. It is the desire of the Board to limit the length and number of system outages, and to have those outages planned to the greatest extent possible. During one recent pipe replacement project water was turned off with only hours notice and residents were without water for several days.

**Age of the System:** Engineers who have evaluated the water system have recommended that the water pipes be replaced in the next 15 years. They predict that more leaks are inevitable due to the age and quality of the system. Leakage history indicates that some pipes in the system were not installed correctly, reducing their useful life significantly.

**Water Quality:** The water system provides high quality, safe water to the entire Association, and has for many years. Every time repairs are required the potential exists to contaminate water. Leaks can also cause contamination of water. By minimizing the number of times that we dig into the system we can minimize the chances of contamination.

## Where we are today

**Engineering Design** - While working with contractors to obtain estimates for first projects we identified the need for further engineering work to:

- Evaluate/update the overall design of the system
- Provide requirements detailed enough for contractors to estimate
- Provide basis for managing the quality of work done in the future.

The Board approved doing this engineering work, which is underway. The first deliverable is an Alternatives Analysis. A first draft was received in January 2026. Revisions have been requested and are nearly complete. The engineers' initial recommendation is to replace water main pipes in next 10 to 15 years. Engineering Design work is in progress.

**Overall Approach** - We are reworking our overall approach based on additional information. We are considering alternatives that may lower cost and limit the extent of work required.

**Leak Detection** - We are determining where the remaining leakage in the Transmission System is located. Currently staff is focused on determining if there is a large leak between Well #2 and Well #3. Leak detection will continue throughout the system.

## **Process for Moving Forward**

### **Establish/maintain a working group:**

Kris Borgias - subject matter expert about the water system  
Pete Soderquist - subject matter expert about the water system  
Doug Hale - current water system manager  
Sally Eckert - communication  
Dick Nova, Jim Ginn - board members  
Jim Segaar - program manager

### **Improve communication with home owners:**

We have added some background information to the website. We plan to provide regular updates to owners via email and the website.

### **Engineering:**

Complete the engineering work already underway.

### **Funding:**

Public funding does not look promising. Bob Rohde researched federal programs and found they would raise costs significantly. Mark Ryan researched the most promising State of Washington program and determined using it would add significant costs to the project. Mark's findings are as follows:

- Cost of a \$3 million loan over 20 years is \$2,421 per lot per year
- Substantial upfront costs exist just to apply
- Cost of doing work would be about 30% higher due to state requirements.

Laron Eakins researched private funding sources. He determined that private funding is cost prohibitive due to current interest rates.

From Laron: "I would agree that if the project can be done incrementally, funded through regular special assessments, it would be the best approach. It may be worth noting to the group that, should we experience a failure, larger emergency assessments and/or higher-cost financing may be necessary."

### **Overall approach:**

Formulate a new approach that balances:

- Funding over time
- Replace sections of pipe that currently are leaking
- Install additional meters and valves to better identify leaks and manage the system
- Prioritize future work based on what is leaking/broken

### **Goal:**

Present a new overall approach and funding plan to home owners as a multi-year package for approval - independent of the operating budget. Timing TBD.