

Willamette Water Supply

Our Reliable Water Future

A resilient Water Supply System

Natural disasters such as earthquakes, severe storms, flooding, and droughts can affect drinking water supplies, thereby threatening health and safety as well as the region's economy. Creating a clean and reliable water supply system that is resilient against these risks is of utmost importance to Willamette Water Supply Partners.

Critical Need for Infrastructure Protection

The Oregon Resilience Plan provides guidance for reducing risks and improving recovery in the event of a major earthquake. The plan indicates that a major earthquake would seriously compromise our region's water systems. Most water systems were designed and built before engineers had a good understanding about the magnitude of potential earthquakes we could experience. Without significant improvements, the region's water system will experience thousands of leaks and breaks; many reservoirs and treatment plants may be damaged, some beyond repair.

The Willamette Water Supply System is being designed to withstand the impacts of a large earthquake or other natural disasters so that water service can be restored quickly, and our communities can recover sooner.

Advance Engineering Design Will Limit Damage

Pipelines, water storage tanks, and other infrastructure along the 30+ mile route were designed using advanced engineering techniques to strengthen infrastructure, decreasing the likelihood of cracking, or breaking during an earthquake. In areas along the route where the soil is likely to liquefy due to shaking from an earthquake, special precautions are being taken, including locating the pipeline in some places at the depth below where this kind of geological hazard would affect the pipe binder.

Robust Water Treatment Maintains Water Quality

During major storm events, more debris and silt will wash from the watershed into the Willamette River. Though this can result in very dirty water, the treatment plant will continue to produce water exceeding drinking water standards. This is accomplished through a series of state-of-the-art treatment processes such as a high rate clarification, granular activated carbon filters, and ozone to produce high-quality drinking water.

Our Future Water Supply

The WWSP is a partnership between Tualatin Valley Water District, the City of Hillsboro and the City of Beaverton to develop the mid-Willamette River at Wilsonville as an additional water supply source and will be paid for by those ratepayers. This new system, when operational in 2026, will provide a reliable water supply for the region while also helping water system operators balance supply during times of drought or other supply interruptions, and recover more quickly after a large natural disaster.



Crews assess infrastructure damaged from an earthquake in California. Advanced construction techniques used for the Willamette Water Supply will limit damage and help to maintain critical services to water customers during emergencies. *Photo: Carlos Avila Gonzalez, The San Francisco Chronicle*

Learn More

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