

A Resilient Water Supply System

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

Critical Need for Infrastructure Protection

The [Oregon Resilience Plan](#) provides guidance for reducing risk 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. This is because most water systems were designed and built without the knowledge we now possess regarding the magnitude of potential earthquakes in our area. Without significant improvements, the region's water systems 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 disaster so that water service can be restored quickly and our communities can achieve recovery sooner.

Advanced Engineering Design Will Limit Damage

Technical approaches will be used to strengthen the pipelines, water tanks, and other infrastructure along the 30+ mile route, decreasing the likelihood of cracking or breaking that can result from earthquakes. In areas along the route where the soil is likely to liquefy due to the shaking from an earthquake, special precautions are being taken, including in some places locating the pipeline at a depth below where this kind of geologic hazard would affect the pipe.

Robust Water Treatment Maintains Water Quality

During major storm events, more debris and silt wash from the watershed into the Willamette River. Though this can result in very turbid river water, the water 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 high rate clarification, granular activated carbon filters and ozone to produce high-quality drinking water.



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

Learn More

OurReliableWater.org

503-941-4570

info@ourreliablewater.org

Our Future Water Supply

Tualatin Valley Water District (TVWD) and the City of Hillsboro are partnering to develop the mid-Willamette River at Wilsonville as an additional water supply source.

There is enough water for today—but steps need to be taken now to have an adequate supply to meet future demands and provide greater reliability.