

Early quake warning system expands to Oregon, Washington

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An early warning system for earthquakes has been expanded to Oregon and Washington, joining California in testing a prototype that could give people seconds or up to a minute of warning before strong shaking begins.

The system isn't ready to issue public quake warnings yet, according to the U.S. Geological Survey, which has been working with university partners to develop the ShakeAlert system.

But this version allows early adopters in Oregon and Washington to begin using the early signals to figure out what they need to do in the event of an [earthquake](#). Such pilot projects are helping to make the system more reliable and pave the way for broader use.

Officials with USGS, the University of Washington and others held a news conference Monday in Seattle to announce the system's roll out across the U.S. West Coast. California has been testing the production prototype since early 2016.

Even a few seconds of advanced notice can help people to duck and cover or cities to slow trains, stop elevators or take other protective measures, agency officials say.

In Washington state, a Seattle area firm RH2 Engineering has signed on as a pilot user to test the system to prevent water tank spills, The Seattle Times reported (bit.ly/2pmAqX8). The firm develops municipal water

and sewage plants and hopes to use the system to be able to close valves in the event of an earthquake.

"The advantage of earthquake [early warning](#) is that it gives us forewarning that the shaking will occur, and we can be sure the valve is fully closed by the time the shaking starts," the firm's Dan Ervin told the newspaper. The company is working on software and hardware to process the [warning](#) signals and automatically close valves.

The early warning system detects earthquakes using a network of ground motion sensors. The amount of warning time depends on distance from an earthquake's epicenter. Locations very close to the epicenter may not get any warning, but others farther away could get anywhere from seconds to minutes.

The University of Oregon is working with the Eugene Water & Electric Board, Oregon's largest public electric and [water](#) utility service, to install sensors on its hydroelectric facilities, canals and [water treatment plant](#), the Daily Astorian reported.

The USGS says it will cost \$38.3 million in capital investment to complete the ShakeAlert system so that it can begin issuing alerts to the public. It will cost about \$16.1 million each year to operate and maintain it.

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