

Appendix G. Seismic Infrastructure Policy

I. **BACKGROUND:**

PWB intends to meet the goals and requirements for public water systems stated in the 2013 Oregon Resilience Plan, Section 2013 of America’s Water Infrastructure Act of 2018, and the Oregon Health Authority, Drinking Water Services (OHA-DWS), requirements for master plans of water systems with 300 or more connections (OAR 333-061-0060 (5)). To meet these goals and requirements, it is the policy of PWB to implement the strategies in the 2017 Water System Seismic Study (WSSS), and the 2018 Seismic Implementation Plan (SIP) along with any future updates to these documents. These policies are designed to meet the Target State of Recovery (TSoR) required as part of OHA-DWS, which require the water system backbone system to be 80% to 90% operational within 24 hours following a Cascadia Subduction Zone (CSZ) earthquake and the distribution system to be 80% to 90% operational within two weeks following a CSZ earthquake.

II. **SEISMIC POLICY:**

1. All new or existing water system infrastructure assets designated by the Portland Water Bureau as critical backbone pipeline elements are required to be designed (new assets) to meet the desired performance goals (TSoR). Backbone elements include conduits, transmission mains, and key distribution mains.
2. All non-backbone pipelines, 6 inch or greater, in areas of high liquefaction hazard areas with a permanent ground deformation (PGD) greater than 6 inches, are required to be designed (new assets) to meet the desired performance goals (TSoR).
3. New pipeline assets identified in 1 and 2 above shall include earthquake forces in design of welded steel pipe, use Earthquake Resistant Ductile Iron Pipe (such as Kubota Genex), or other as approved by PWB to meet the desired performance goals.
4. All new structures and components shall be designed in accordance with best practice at the time of design, including the most current version of the Oregon Structural Specialty Code (OSSC) and the Portland Water Bureau standards.

An ARC GIS web map has been placed on the City of Portland website to determine the ground movement characteristics of all sites within the City of Portland.

These requirements will be in effect at time of recording of this Rule.