

Willamette River Crossing Project

The Portland Water Bureau and McMillen Jacobs Associates are soliciting Requests for Qualifications from qualified Design-Build teams.

Portland, Oregon's water supply system has successfully met the demands of a growing city for more than 125 years. Six pipelines cross the Willamette River to deliver water to Portland's west side from the east—some are buried in soils susceptible to liquefaction, while others are suspended under transportation bridges.

Given the risk of a catastrophic earthquake in the Pacific Northwest, the Portland Water Bureau is planning to construct a seismically hardened water main buried deep beneath the Willamette River that will:

- Provide system redundancy so that existing crossings can be placed out of service for inspection, maintenance, and repair.
- Serve as a lifeline pipeline in the event that the other crossings fail during a significant seismic event.

The river crossing will consist of a large diameter welded steel pipeline constructed using Horizontal Directional Drilling (HDD) methods. Seismic design criteria and standards will be developed to ensure the river crossing pipeline will be designed to retain original strength, integrity and capacity during an earthquake.

For More Information

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Website for accessing the RFQ:
<https://procure.portlandoregon.gov/bs/>
Project Website:
www.portlandoregon.gov/water/wrx



Project Details

The river crossing is anticipated to have a length up to 4,500' and a depth up to 200' at the lowest point under the river. The pipe size will be governed by hydraulic, seismic, and HDD constructability criteria.

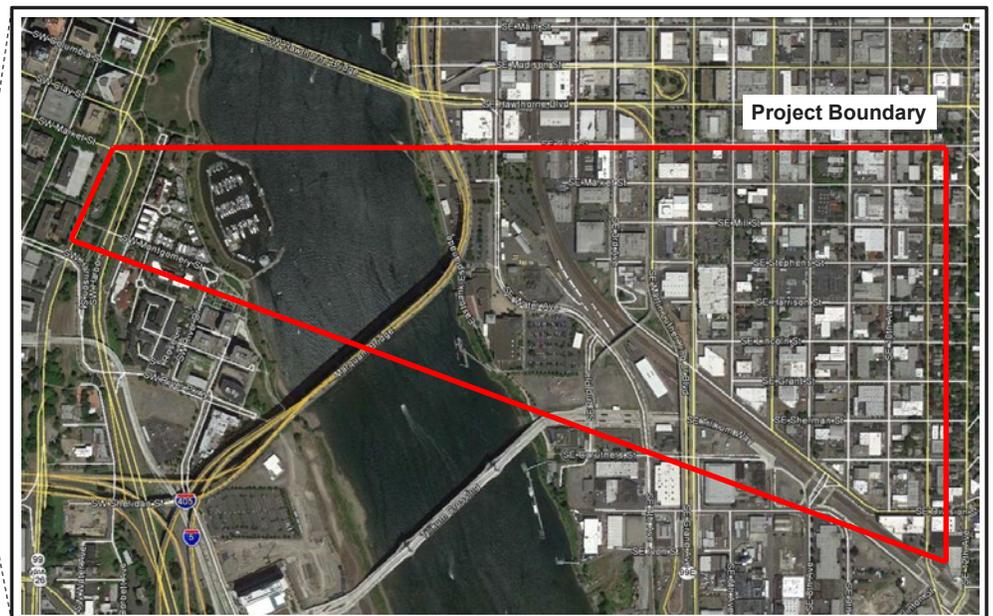
The length and width of available staging for pipe laydown, assembly, and pullback is constrained by limitations on available city street right of way such that it will be unlikely to perform HDD pullback in one uninterrupted operation. It is anticipated that multiple alignment alternatives will be capable of meeting hydraulic, seismic, and constructability criteria. Final alignment will be determined by the successful Design-Build contractor.

Besides the river crossing, the project includes variable lengths of open cut construction to connect into existing pipelines that are referred to as the west side and east side headers. Pipeline appurtenances, including isolation valves, will be required at the connection on both sides of the river. It is anticipated that combinations of pipe sizes will be feasible for the river crossing and open cut sections of the project depending on lengths and configurations.

Project Location and Alignment Corridor



Portland, Oregon

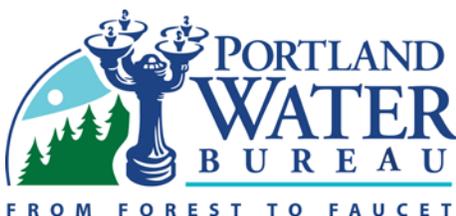


Key Project Milestones

Early April 2017:
Solicitation for the RFQ

June 2017:
Qualified firms notified

July 2017:
Request for Proposals solicitation



Nick Fish, Commissioner
Michael Stuhr, P.E., Administrator

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