

Drinking Water State Revolving Fund



City of Pasco

Columbia River Water Supply Project

In 2015, the City of Pasco used a Drinking Water State Revolving Fund loan to replace an existing intake on the Columbia River. The city treats water from the Columbia River at its membrane filtration plant adjacent to the river, and it needed to replace the existing intake to address seasonal intake clogging due to milfoil, an invasive aquatic plant.



Old intake pumps in foreground, new intake near buoys in Columbia River.

Milfoil exists throughout the Columbia River system and sometimes clogs recreational areas and intakes along the river. To address the clogging issue, the city periodically shuts down the 6-million-gallon-per-day (MGD) treatment plant and hires a professional diver to remove milfoil from the intake. This mode of operation is time intensive, costly, and dangerous due to in-water work.

The city elected to install a new intake with a mechanical cleaning system, which eliminates the need for in-water work. The project started with a 30-foot diameter, 85-foot-deep caisson constructed near the existing river intake. Next, they

installed a new intake by micro-tunneling from the caisson to the river. Two new pumps reside on top of the caisson slab, each with a capacity rating of 5.5 MGD to match the city's water treatment plant and provide redundancy.

The new pumps and controls are in a safer location than older intake pumps—securely housed in an enclosed, locked structure. The city can expand the pump house for additional pumps to meet future needs. The size of the new intake matches the treatment plant capacity and the intake has fish screens. The older intake will remain in service for the City of Pasco Irrigation District to use, if needed, or for use as a back up to serve the water treatment plant.

Using a \$6.8 million DWSRF construction loan, Pasco completed the new intake and pump house facility.



New pumps on top of caisson slab.

Public health and environmental benefits

City of Pasco can provide safe and reliable drinking water with the intake structure and avoid costly plant shut downs to address intake-clogging events. The new intake is easier to clean and equipped with a proper fish screen.