Pipeline Project Schedule

Construction.............Fall 2013 to Winter 2015

Reducing impacts in your neighborhood

Street cleaning and debris

The Project’s contractors will be required to maintain a safe and clean work site and comply with Erosion Control Ordinances. To receive an Erosion Control Permit in most communities, a plan is required to keep streets and worksites free of dirt and debris.

Work hours

Hours of operation are determined by the jurisdiction where the work occurs and will be made a requirement of the construction contracts. As an example, past work has been permitted by the City of Lake Oswego from 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, unless later hours are authorized by the City Manager. Generally, no work occurs on Sundays or major holidays unless specially authorized. Night work on Highway 43 will be allowed by Oregon Department of Transportation (ODOT) 8:00 p.m. to 5:00 a.m., Monday through Saturday.

Traffic and parking

The contractor will be required to follow a Traffic Control Plan prepared in conformance with State and City regulations. The plan will designate truck routes, detours, signs, and safety measures for pedestrians and cyclists. Access will be maintained for residents, businesses and emergency vehicles at all times. In some cases, parking may be temporarily prohibited in the construction area to maintain needed access.

Project Map

Natural resources will be marked to ensure sensitive areas are avoided.

Noise control

Construction sites are typically noisy, but many steps can be taken to minimize noise. The Partnership requires that the contractor submit a Noise Mitigation Plan. This Plan will state measures to be taken, including equipment selection, timing of noise generating activities to reduce impacts, and reducing idling time of equipment to lower emissions.

Street repair

Streets that are torn up for construction will be restored and repaved according to local codes. Street conditions will be assessed before, during and after construction and appropriate restoration will be made as needed.

Water System - Construction Underway

In August 2008, the cities of Lake Oswego and Tigard formally endorsed a Partnership Agreement for sharing drinking water resources and costs. This agreement was the result of a multi-year planning effort by Lake Oswego and Tigard to meet their obligation to continue providing reliable, safe drinking water to current and future residents and businesses.

In 2013, the Partnership began construction on three new facilities and laying more than ten miles of pipeline from the Clackamas River in Gladstone through West Linn and Lake Oswego up to the Waluga Reservoir and in Tigard, along Bonita Road. New pipeline construction is planned in Gladstone, West Linn and Lake Oswego through 2015.

The following provides general information about the different types of pipeline work you may see. Project specifics will vary depending on the location.

Our Promise

The Lake Oswego Tigard Water Project team is dedicated to:
1. Minimizing impacts to residents and the environment during the construction process;
2. Constructing a fiscally responsible project within a set time frame;
3. Avoiding unplanned interruptions to water service during construction;
4. Providing timely and detailed information about the construction process;
5. Listening to citizen concerns; and
6. Working with citizens to address their needs.

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CLACKAMAS RIVER INTAKE (18 MGD)
RAW (UNTREATED) WATER PIPELINE (36" - 48" DIA)
WATER TREATMENT PLANT (18 MGD)
FINISHED (TREATED) WATER PIPELINE (24" - 48" DIA)
WALUGA RESERVOIR 2 (3.5 MG)
BONITA PUMP STATION (20 MGD)

Lake Oswego has provided fresh Clackamas River water to customers since 1969.
Construction Methods

What can neighbors expect?

Construction sites for water system projects are active places. You will likely see and hear heavy equipment like backhoes, cranes, concrete trucks and generators. Trucks may come and go delivering specialized equipment to the site, like tunneling and drilling machines; or materials like pipe and gravel.

While work is taking place, excavation and earthwork activities can create dust or mud and construction vehicles and possible road closures or detours can affect traffic. Crews will range in size from three or four to a dozen or more, depending on the type of work. Partnership staff will visit the site often to monitor construction activities, erosion control, and compliance with land use approval conditions.

Before construction starts, Partnership Project staff will hold a neighborhood meeting in your area. When construction starts, nearby neighbors will always have a point of contact to ask questions or report concerns.

Cut-and-cover trenching

Most of the new pipelines will be installed using cut-and-cover trenching construction techniques. To minimize local disruption, trenching work is done in 100 - 200 foot segments. When one segment is done, the construction operation moves to the next segment. A crew may be able to install up to 100 feet of pipeline per day, depending on a variety of factors.

Most trenching operations will take place in public streets or rights-of-way. First, the asphalt road surface will be saw cut and the asphalt will be removed. Then, trenches will be dug using backhoes and dump trucks will remove excavated dirt. Depending on soil conditions or trench depth, the sides of the trench may need to be shored. When the trench is completed, workers will lay new pipes and refill the trench with gravel backfill material.

After work is complete, the trench will be temporarily paved. Permanent pavement restoration will occur after the pipes are tested for leaks and construction is complete.

During construction, access to streets can be limited, and detours may be required. In some cases, a road might be closed temporarily, although local access would always be maintained for residents, emergency vehicles, and businesses. Detour plans must be approved by the City where the work will be performed.

Pipeline installation on Highway 43 in West Linn and Lake Oswego will occur at night, Monday - Friday between 8:00 p.m. to 5:00 a.m. Expect partial lane closures during these times.

Trenchless installation methods and drilling

New pipeline installation can also be done using trenchless methods, such as microtunneling, horizontal directional drilling, or pipe ramming. Trenchless methods are typically used to go under a busy roadway, railroad or stream—or to avoid a sensitive environmental area such as a wetland or steep slope.

Microtunneling

Microtunneling uses a specialized small boring machine that is remotely controlled from the surface to install pipes. Pipe will be installed immediately behind the boring machine. In microtunneling, there are normally no workers in the tunnel, although they sometimes may enter to repair equipment.

Microtunneling is planned under McLoughlin Boulevard (99E) in Gladstone.

Tunneling causes impacts at access shafts where a boring machine is inserted and dirt is removed. Construction will start with site preparation—fencing, grading and clearing vegetation. After a tunnel access shaft is built, much of the noticeable activity will center on removing the excavated dirt, called spoils. Trucks then transport spoils to a disposal site. Excavation and spoils removal will affect traffic as trucks come and go, and equipment will run on the site, sometimes continuously during work hours.

Pipe ramming

This tunneling technique uses a powerful, pressurized hammer to create an underground tunnel. The hammer is used periodically during the construction process (1-2 hours per day), but when in use, it can produce significant noise. Neighbors near this type of tunneling can expect a few days to a week of noisy activity during the day. Disruptive vibrations are usually limited to areas within 10 feet of the hammer. Pipe ramming may be used in some locations across the project.

Horizontal directional drilling (HDD)

Horizontal directional drilling (HDD) uses a drilling rig on the surface to install a drill pipe in a shallow underground arc. The drilling rig will bore a pilot hole and then use a reamer to enlarge the hole to the needed size. Pipe is then pulled through the hole. Directional drilling can require a large staging area so the welded pipeline can be pulled into the hole as a single piece. HDD is planned for pipe installation under the Willamette River.

For more information

Visit lotigardwater.org, call 503-697-6502 or email us at lotwater@ci.oswego.or.us for more information about the Lake Oswego Tigard Water Partnership. Connect with us on Twitter @LOTwater