

## Former Portland Gas Manufacturing – Summer 2020 In-Water Cleanup



State of Oregon  
Department of  
Environmental  
Quality

### What is Happening?

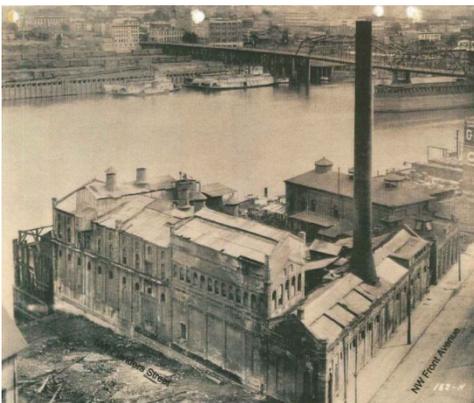
Starting in July 2020, NW Natural will begin work to clean up contaminated sediment at the former Portland Gas Manufacturing site along the Willamette River in downtown Portland. This work will address historical contamination resulting from gas manufacturing operations along the west bank of the river from the mid-1800s to early 1900s.

Cleanup activities will include removal of some contaminated sediment, capping with clean sand and gravel and enhanced natural recovery. Activated carbon will be added to a portion of the cap to increase effectiveness. Work will be completed using barges and small boats in an area between the Steel and Burnside Bridges, offshore of Tom McCall Waterfront Park.

Access to the work area will be limited during cleanup, including navigational restrictions for recreational boaters and other river users. A portion of the seawall walking path adjacent to the work area will be closed. Work will take place starting in early July and likely extend through September.

Excavated sediment will be transported to landfills for disposal. Once cleanup work is completed, long-term monitoring will occur to confirm the integrity of the sediment cap and natural recovery of the cleanup area.

### Background



Historic image of PGM along the Willamette River.

The former Portland Gas Manufacturing, or PGM, site consists of five city blocks located along the west bank of the Willamette River between NW Davis and Glisan Streets in downtown Portland. From approximately 1860 to 1913, the manufacture of gas from

coal, carbureted water and oil occurred on-site. Manufactured gas was used, among other things, to fuel the first street lamps in downtown Portland.

Following closure, gas manufacturing operations were relocated downriver to the Gasco site in Linnton. PGM structures were dismantled or demolished at various times between 1913 and the 1940s. Portions of the site, including one of the main plant building, collapsed into the river during construction of the Willamette River seawall between 1928 and 1930. The site was subsequently filled and redevelopment continued with roadway and bridge access ramp construction in the 1940s. A portion of Waterfront Park was built over the easternmost portion of the site (east of NW Naito Avenue) beginning in 1974, while the western site property (west of NW Naito) was redeveloped with commercial buildings and parking starting in the 1970s.

### Nature of Gas Plant Contamination

Wastes associated with manufactured gas plants can include volatile organic compounds (VOCs), semi-volatile organic compounds (sVOCs), metals and cyanide.

### Previous Site Investigation

Beginning in 2009, NW Natural completed a series of investigation efforts to determine the nature and extent of contamination associated with historical gas plant operations. NW Natural completed work under DEQ's Voluntary Cleanup Program, with oversight by agency technical staff.

Multiple phases of sampling were completed in both upland and in-water areas, identifying contamination in groundwater (upland) and sediment (in-water).

Sediment investigation was completed in 2009, 2011, 2012 and 2014, including sediment coring and contaminant analysis, porewater testing, seepage meter measurements, geophysical surveys and diver observations of riverbed conditions.

In-water investigation has identified contamination in sediment adjoining the former site. Contamination is generally highest in buried

### Cleanup Program

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historical deposits, with the exception of a thin surficial deposit of tar-like material found offshore of the former manufacturing block. VOCs, SVOCs, metals and cyanide have been detected above risk-based screening values.

Upland investigation identified groundwater contamination, including benzene and naphthalene, below the surface, notably in the range of 65 to 75 feet below ground. Contamination is confined to groundwater near the river.

### DEQ Selection of Cleanup Plan

Once the nature and extent of contamination was determined, risk assessment and remedy selection reports were developed, addressing both human and ecological health. In 2017, DEQ selected a cleanup plan for the site consisting of (a) removal of shallow tar-like material and high-concentration sediments, (b) in-place treatment of sediments using sand covering with activated carbon, and (c) natural recovery of lower risk areas with or without sand cover enhancements. The remedy, presented in DEQ's July 2017 Record of Decision, was selected after public notice and comment by the public, tribal representatives and EPA. Between 2018 and 2020, design work and permitting were completed. With design completed and necessary permits in place, cleanup work can begin.

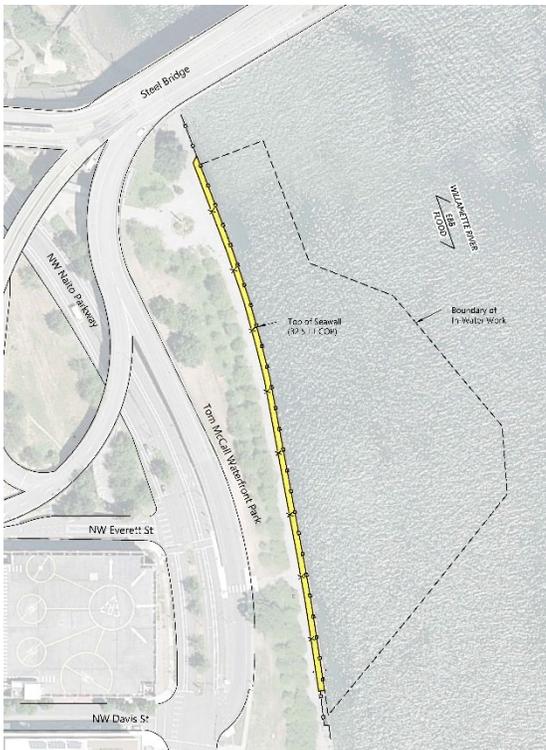


Figure of in-water work and riverfront path closure areas.

### Cleanup Work Specifics and Next Steps

Work will begin with establishing a work perimeter around the in-water cleanup area in early July, including booms and navigation warning aids. Once barge-mounted equipment and water quality controls are in place, sediment removal will be performed within silt curtains in a two-phase process (1) debris removal and (2) dredging of contaminated sediment and tar-like material. Granular activated carbon mixed with clean sand and gravel will be placed over deeper sediment contamination remaining in place, with overlying rock armoring in one area. Clean sand, some with activated carbon, will also be placed outside of the dredging area to enhance natural recovery of the river bottom. Some recovery is already occurring through natural deposition of upriver sediment.

Long-term maintenance and monitoring is required to confirm that the cleanup plan remains protective of public health and the environment.

### Where can I find Additional Information?

File information related to the site and cleanup work is available online at <https://ordeq.org/PGMcleanup>. In-person review is possible by appointment at the DEQ Northwest Region Office at 700 NE Multnomah Street, Suite 600, in Portland. To schedule an appointment please contact the Environmental Cleanup file specialist at (503) 229-6729.

DEQ is planning to update this fact sheet on a regular basis. If you have any questions, please contact the interim DEQ Project Manager, Daniel Hafley, (503) 229-5417, [hafley.dan@deq.state.or.us](mailto:hafley.dan@deq.state.or.us).

Further information on the PGM site can be found through DEQ's Environmental Cleanup Site Information database searching online for: "DEQ Portland Gas #1138."

### Alternative formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us).