

Portland Harbor: Characterizing and Managing Catch Basin and In-line Sediments

Stormwater runoff from upland sites has been identified as one of the potential sources of contamination to the Willamette River.

Evaluating and controlling discharges of contaminants via stormwater is an important consideration in source control at Portland Harbor sites.

The purpose of this fact sheet is to clarify DEQ's expectations regarding characterization and management of sediments removed from a stormwater catch basin or the stormwater conveyance system as part of a source control investigation at cleanup sites within the Portland Harbor study area.

Contaminants of interest

When removal of sediments from stormwater catch basins and conveyances is proposed, DEQ usually requires analysis of the sediments for all contaminants of interest identified for the upland site and certain risk-driving chemicals of potential concern for Portland Harbor sediments.

For each clean-out activity, DEQ project managers will provide direction on the suite of chemicals for which laboratory analysis is required. General procedures for sampling stormwater and associated sediments are specified in the Guidance for Evaluating the Stormwater Pathway at Upland Sites, updated October 2010.

DEQ project managers will determine which contaminants of interest to screen for based on available information from the site, on in-line sediment from stormwater conveyances "downstream" of the site (if the site's stormwater discharges to another stormwater conveyance system before reaching the river) and on in-river sediment adjacent to the outfall. In addition,

DEQ requires analysis of all stormwater sediment samples to include all of the phthalates and polychlorinated biphenyls, commonly

known as PCBs, listed in the Joint Source Control Strategy.

DEQ's Guidance for Evaluating the Stormwater Pathway at Upland Sites provides information and templates for developing site-specific work plans to evaluate stormwater runoff from upland sites.

Appendix E of the guidance includes a Tool for Evaluating Stormwater Data in comparison to those found at other industrial sites in Portland Harbor.

These are intended to ensure that information on stormwater discharges is collected in a consistent and thorough manner in support of the goals of the Portland Harbor Joint Source Control Strategy.

If contaminants are detected in stormwater solids at levels exceeding the contaminant screening levels listed in Table 3.1 of the Joint Source Control Strategy, DEQ may require further

sampling to identify the source and extent of contamination.

DEQ may require source control

If contaminants are detected in stormwater sediment at concentrations exceeding screening criteria, DEQ will expect implementation of best management practices or other source control measures and follow up stormwater monitoring (for instance, whole water sampling) to ensure that the source has been effectively controlled. It is likely that ongoing stormwater control measures will be necessary at most Portland Harbor upland sites to ensure that future stormwater discharges do not re-contaminate the river or sediments.

Why is this necessary?

Adequate characterization of stormwater discharges is an important step in the source control process. Properly identifying contaminants will help to ensure that effective controls are in place to prevent upland source



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contributions to both ongoing contamination and potential recontamination of the river following in-water cleanup actions.

Stormwater sediment data can provide critical information for determining if releases of hazardous substances at upland facilities have or could impact the river within Portland Harbor. This data will also help to tailor source control measures to the specific situation at a site.

DEQ is requiring PCB and phthalate screening at all sites because these contaminants have been identified as preliminary risk drivers throughout the Portland Harbor area, and because of the varied and widespread use of these substances.

Additional considerations

A proactive source control measure is to thoroughly clean sediments from stormwater conveyance lines. A work plan for such line cleaning should include sampling and analysis of both solids and wastewater generated by the cleaning process, as well as a disposal plan for all wastes.

Sediments removed from the stormwater collection system may require dewatering and additional testing to ensure appropriate disposal in accordance with applicable DEQ Solid and Hazardous Waste regulations.

Wastewater generated from line cleaning activities may not be discharged to the private or municipal stormwater conveyance system (even if the facility holds a National Pollutant Discharge Elimination System, known as NPDES, stormwater permit).

Wastewater disposal options include:
Offsite disposal by a permitted private waste management company capable of appropriate treatment and disposal; or
Discharge to the City of Portland's sanitary sewer system through a batch discharge process (see below for details).

Notification requirements

The City of Portland Bureau of Environmental Services must be notified before you begin stormwater line cleanouts if any of the following three conditions apply to your facility:

Lines are connected to a municipal stormwater conveyance system.

The city has requested notification of proposed cleaning operations in order to ensure worker safety for city and contract personnel and to verify that prohibited discharges of solids or wastewater are not made to the municipal conveyance system. A permit will be required if

cleaning or sampling activities necessitate access to the city system.

All stormwater line cleaning activities that connect to the City's conveyance system, and affiliated proposed access to city stormwater lines should be coordinated with the City's Portland Harbor Program, at 503- 823-2296.

Facility operations are covered by a General NPDES stormwater permit.

The city administers stormwater General Permits for facilities within the City of Portland through a Memorandum of Understanding with DEQ. For facilities with a General NPDES stormwater permit, notification will also allow for technical assistance and oversight from city permit managers. Contact the city's Industrial Stormwater Program at 503-823-5320.

Line cleaning wastewater will be discharged to the sanitary sewer.

Wastewater may be discharged to the city sanitary sewer system if it meets the wastewater discharge limitations established in city code Chapter 17.34 "Industrial Wastewater Discharges" AND is approved by the city's Industrial Source Control Division. However, discharges that include chemicals in toxic concentrations, visible floating solids, or substances that may cause a hazard to the city's system, personnel, or receiving waters are prohibited. Coordinate batch discharge requests with the city's Industrial Projects Section at 503 823-5320. Information and forms can also be found at the following link:
<http://www.portlandonline.com/bes/>.

Facilities with Industrial Wastewater Discharge Permits administered by the city should consult directly with their city permit managers.

For more information

If you have questions regarding Portland Harbor stormwater issues, please contact your DEQ Cleanup project manager for more information, or contact Alex Liverman, DEQ's Portland Harbor Stormwater Coordinator at 503-229-5080 or liverman.alex@deq.state.or.us

Alternative formats

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.