



State of Oregon  
Department of  
Environmental  
Quality

**Northwest Region  
Cleanup Program**  
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## Columbia Slough Sediment Project Settling Potential Cleanup Liability

### Background

In 2005, the Department of Environmental Quality (DEQ) issued a Record of Decision for the Columbia Slough that described the framework for cleanup of sediment contamination in the slough. The three primary components of the sediment cleanup approach are:

1. Pollutant source reduction
2. Specific site cleanup
3. Long-term monitoring.

There are numerous industrial/commercial facilities located along the Columbia Slough that may have contributed to sediment contamination in the slough. DEQ is actively working with a number of facilities in the Columbia Slough watershed to cleanup upland contamination, control sources of contamination to the slough, and cleanup or otherwise resolve their contribution to in-water sediment contamination. As workload permits, DEQ will ask additional facilities to complete assessment and cleanup of their facilities..

DEQ requires a thorough evaluation of all potential sources of contamination to Columbia Slough sediments. Potential sources of contamination to the slough include bank erosion, stormwater runoff, groundwater discharges and direct discharges to the slough. Site-specific cleanup will include controlling these sources to levels protective of human health and the slough environment.

Some facilities have been hesitant to conduct site-specific Columbia Slough sediment investigations due to concerns that DEQ would hold them responsible for investigation and cleanup of contamination caused by others. Investigation and cleanup of contaminated sediments associated with historical stormwater discharges to the slough from municipal stormwater systems is difficult to implement using a site-specific approach. This is because these systems receive stormwater from numerous private, commercial and industrial facilities.

### Alternative approach

DEQ has developed an alternative approach to sediment cleanup that allows parties to settle potential sediment cleanup liability with the

State without conducting in-water investigation and cleanup themselves. DEQ has developed a settlement framework that calculates a payment amount for each facility based on estimated costs that would be incurred in a sediment investigation and cleanup. Facilities would pay this amount to a State fund to be used for the necessary environmental cleanup work required in the impacted area. Each facility would still be required to complete necessary upland cleanup and associated source control measures under existing agreements with DEQ.

The settlement approach for facilities is based on a site with one private stormwater outfall to the slough. DEQ estimates a cost of \$270,000 for necessary characterization and cleanup of sediment hot spots associated with an outfall. DEQ adds a premium of 25 percent for each additional facility outfall or release mechanism to account for increased cleanup anticipated as a result of the additional discharge points. A facility with two outfalls, for example, would pay \$335,000. The assumptions DEQ used to derive the settlement amount are outlined in the table below.

The settlement approach is particularly useful for facilities that contributed contamination to the slough via a common storm water conveyance such as a City storm water line or where contamination from adjacent properties may be commingled. Establishing a settlement fund to further investigate and cleanup sediments contaminated from multiple sources will be less complicated than coordinating and evaluating independent investigations and cleanups. This in turn will provide a degree of certainty to individual facilities on the cleanup of upland properties and future marketability of these properties.

The settlements are in the form of consent judgments filed with Multnomah County Court. The settlements require the settling parties to satisfactorily complete cleanup and source control measures at their upland facilities, pay DEQ specified amounts to be used by DEQ for sediment cleanup work. In return, the settling parties would receive protections from potential lawsuits from the State or third parties for cleanup costs.

DEQ, in collaboration with Oregon Department of Fish and Wildlife, also has developed a settlement framework for potential natural resource damages caused by the impairment of the Columbia Slough beneficial uses. Each settling party has an option to pay an additional \$50,000 to address natural resource damages. The additional payments would be dedicated to habitat restoration within the slough. For parties that choose not to include the additional payment, the covenant not to sue from the State would exclude natural resource damages.

DEQ has finalized 8 settlements for sites located in the lower Slough, and is in the process of finalizing two additional settlements in the middle Slough. DEQ has collected \$1,750,000 for sediment cleanup, and an additional \$500,000 for natural resource damages.

### For more information

Copies of the completed settlements between DEQ and each of the settling parties are available at the DEQ Northwest Region Office, 2020 SW 4<sup>th</sup> Ave., Suite 400 or <http://www.deq.state.or.us/lq/cu/nwr/columbiaslough/index.htm>

To review files at DEQ's office, contact DEQ's file review coordinator at (503) 229-6729 to make an appointment.

If you are interested in pursuing a settlement of potential sediment liability for your facility, please contact DEQ Project Manager, Jennifer Sutter at (503) 229-6148 or [sutter.jennifer@deq.state.or.us](mailto:sutter.jennifer@deq.state.or.us); or DEQ Cleanup Program Manager Bruce Gilles at, (503) 667-8414 extension 55009, or [gilles.bruce.a@deq.state.or.us](mailto:gilles.bruce.a@deq.state.or.us)

### Settlement Framework Cost Factors

Activity	Unit Cost	Total Cost	Comment
Investigation Work Plan:	\$15,000	\$15,000	\$10K Draft/ \$5Kfinal
Field Investigation	\$7,000	\$7,000	2 persons * 10 hours for 2 days at ~\$100/hr plus \$2K for equipment rentals, & supplies,
Analytical Testing	\$1000/sample	\$15,000	15 samples with Standard turn-around times (includes QA/QC samples)
Data Management/Validation	\$2,000	\$2,000	Estimate.
Data Report	\$5,000	\$10,000	\$5K Draft/ \$5Kfinal
Sediment Hot Spot Removal Plan	\$10,000	\$15,000	\$10K Draft/ \$5Kfinal
Permitting/ESA	\$10,000	\$10,000	COE 404, DEQ 401, & DSL Removal-Fill (scope of ESA consultation and permit fees yet to be determined)
Mobilization Fee	\$10,000	\$10,000	Rough estimate.
Dredging	\$70/cy * 200cy	\$14,000	Assumed hot spot area at outfall of 50'x50' and 2' depth
Dewatering, bank restoration following construction	\$25,000	\$25,000	Assumes focused dredging from bank and temporary dewatering facility; post removal bank restoration work.
Transport and Disposal	\$100/ton * 300	\$30,000	Solid waste landfill; 200cy of sediment equivalent to 300 tons.
Analytical Testing	\$600/sample	\$12,000	20 confirmation samples Quick turn around on 1/2 of samples collected
Sediment Removal Report	\$10,000	\$15,000	\$10K Draft/ \$5Kfinal
DEQ Oversight	\$140/hr	\$28,000	200 hours total
Subtotal		\$208,000.00	
Contingency		\$62,000	30 percent
<b>Grand Total</b>		<b>\$270,000</b>	

Note: Does not include DEQ costs associated with settlement agreement negotiations, which would be charged to settling party.