

Water Quality Permits For Metal Mining Activities



State of Oregon
Department of
Environmental
Quality

Background

The Oregon Department of Environmental Quality requires water quality permits for mining operations on all private and public lands in Oregon. Water quality permits limit the amount of pollution a facility is allowed to discharge.

Metal mining activities include prospecting and mining (placer or hard rock/lode) and processing of metal ores using hand and power equipment.

Required water quality permits include:

- **Wastewater permit:** All metal mining operations, except hand panning, must have a wastewater permit to properly manage wastewater that discharges to land or waterways. There are different wastewater permits for different activities. Operations that discharge to waterways must have a National Pollutant Discharge Elimination System permit, and operations that discharge to land must have a Water Pollution Control Facility permit.
- **Stormwater permit:** Metal mining operations must also have a stormwater permit to properly manage stormwater runoff that may flow from the mining site into Oregon waterways.
- **Additional requirements:** Depending on activities, 401 water quality certification and septic maintenance may also be required.

Wastewater permits

1. General permit for discharge to waterways

The general National Pollutant Discharge Elimination System 700-PM permit authorizes discharges from small suction dredges for recovering precious metals or minerals from stream bottom sediment. This permit covers mobile sources for valid stream locations state-wide and applies to siphon/gravity suction dredges. This permit also covers discharges from in-water, non-motorized equipment, such as a hand sluice box, mini rocker box, or hand suction device, without submitting a permit application or fees. Highbanker/power sluice and combination suction dredges/highbanker discharges are not authorized under this permit.

2. Individual permit for discharge to waterways

An individual National Pollutant Discharge Elimination System permit is for metal mining activities that discharge to waterways and don't qualify for a general permit or have special circumstances. Activities requiring an individual

permit include combination highbanker/suction dredges machines; and the use of chemicals such as cyanide or flocculants.

3. General permit for discharge to land

The general Water Pollution Control Facility 600 permit is for metal mining and non-chemical ore processing activities not exceeding 10,000 cubic yards per year that discharge wastewater to land. The general permit is inapplicable for mining activities operating or discharging wastewater below the ordinary high water level of state waters.

4. Individual permit for discharge to land

DEQ requires an individual Water Pollution Control Facility permit for operations that discharge wastewater to land that do not qualify for a general permit or process more than 10,000 cubic yards of ore per year or use chemicals for processing.

401 water quality certification

Mining activities below a stream's ordinary high-water designation must also submit a joint permit application to both the U.S. Army Corps of Engineers and Oregon Department of State Lands, which will respond in writing about whether an additional permit is required. If the Corps requires a permit, the owner or operator must also apply for DEQ's 401 water quality certification, likely in addition to a State Lands removal-fill permit.

Stormwater permits

1. Industrial stormwater general permit

The general National Pollutant Discharge Elimination System 1200-Z permit is required for operations in the Standard Industrial Classification Code 10 ([SIC 10](#)) when stormwater may contact mining materials or waste. This permit also covers stormwater discharges from certain construction activities, so miners may not be required to also register under the general 1200-C construction permit.

2. Construction stormwater general permit

The general National Pollutant Discharge Elimination System 1200-C permit is for

Water Quality

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construction activities that will disturb one or more acres with potential stormwater runoff to waterways or conveyance systems (such as a catch basin, storm drain, ditch, pipe, culvert). Construction activities include clearing, grading, excavation and stockpiling.

Mercury collection

Using mercury to extract precious metals (such as gold and silver) from ore is *not* authorized under DEQ's water quality permits. The process of adding mercury to ore concentrate, creating mercury-precious metal amalgam to separate from fines/slime, then burning the amalgam to drive off mercury and leaving the precious metal is harmful to human health and the environment. Mercury exposure by ingestion, absorption through skin, and vapor inhalation causes nerve and brain damage. Releasing mercury to the environment can result in fines of thousands of dollars. Performing this activity and mismanaging hazardous waste may be an environmental crime.

DEQ and many local hazardous waste programs accept mercury and mercury-containing devices from Oregon residents **free of charge**. If miners have collected incidental mercury from mining activities (such as suction dredging, off-stream sluicing), please dispose through the free mercury collection program. Visit <http://bit.ly/DEQ-Mercury> or call 1-800-732-9253 to learn more about these services.

Septic sewage removal and disposal

DEQ prohibits discharge of sewage onto the ground or into waterways.

Sewage at temporary operations must be removed from the mining site and properly disposed of by the miner or a licensed sewage disposal service. If a miner uses a bag system, portable toilet, recreational vehicle toilet or other mobile device, sanitary waste must be hauled away and properly disposed. DEQ regulations prohibit dumping solid human waste into garbage bins and landfills. Sewage from holding tanks in RVs can be properly disposed at a RV dump station often free of charge.

Permanent operations must have septic systems that meet state regulations. Learn more at <http://bit.ly/DEQ-Septic>

Reporting Complaints

To report complaints on metal mining activities, please call the Oregon State Police Call Center at 1-541-776-6111 or send an email to osp.scc@state.or.us.

For more information

For more details on water quality permits for metal mining activities, visit: <http://bit.ly/DEQ-Metal-Mining>.

Related mining authorities

Metal mining operations in Oregon may also need to contact local, state and federal authorities to meet additional requirements, including:

- Oregon Department of State Lands: See <http://www.oregonstatelands.us/DSL/PERMITS/index.shtml> or call 503-986-5200, Salem.
- Oregon Department of Fish and Wildlife: See Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources at <http://www.dfw.state.or.us/lands/inwater/> or call 503-947-6200, Salem.
- Oregon Water Resources Department: See <https://www.oregon.gov/OWRD/pages/index.aspx> or call 503-986-0900, Salem. DEQ-DC1
- Oregon Department of Geology and Minerals Industries: See <https://www.oregon.gov/DOGAMI/Pages/index.aspx> or Call 541-967-2039, Albany.
- Oregon Parks & Recreation Department: See <https://www.oregon.gov/OPRD/Pages/index.aspx> or call 503-986-0733, Salem.
- U.S. Army Corps of Engineers: See <http://www.nwp.usace.army.mil> or call 503- 808-4373, Portland.
- U.S. Forest Service (Region 6): Call the district ranger for the national forest where you want to mine or see <http://www.fs.fed.us/geology>.
- U.S. Bureau of Land Management: See <http://www.blm.gov/or/index.php> or call 503- 808-6008, Portland.

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.