

Cleanup Plans Available for Public Comment

Ecology Wants Your Comments!

The Washington State Department of Ecology (Ecology) invites you to comment on draft cleanup plans for the USG Highway 99 cleanup site. The site is at 7110 Pacific Highway East in Milton.

Ecology will accept comments from **July 9 through August 11, 2015** on these draft documents:

- **Agreed Order** — a legal agreement that requires USG Interiors, formerly US Gypsum, to clean up the site.
- **Remedial Investigation/Feasibility Study (RI/FS)** — describes the contamination and compares cleanup options.
- **Draft Cleanup Action Plan (CAP)** — outlines the recommended cleanup.
- **Updated Public Participation Plan** — describes the tools we will use to inform the public and gather feedback.
- **State Environmental Policy Act (SEPA) review** — describes the potential environmental impacts of the cleanup work.

The box to the right shows where to find site documents and how to submit comments.

Site Background

Before 1985, USG used the site to dispose of waste from their rock wool (see page 2) manufacturing plant in Tacoma. USG used slag, a waste from the Asarco copper smelter in Tacoma, as raw material for the rock wool. The slag contained arsenic—a toxic metal.

The waste USG buried at the site included 20,000 tons of “bag house dust” and “shot.” Both wastes contained arsenic.

USG removed waste from the site between 1984—1986 and disposed of it in a licensed landfill. However, not all the waste was removed.

Additional soil and groundwater studies showed arsenic in soil, groundwater, and sediment that exceeds the state cleanup standard. Ecology and USG are now proposing a draft cleanup plan.

Comments Accepted

July 9—August 11, 2015

Submit Comments and Questions to:

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Public Involvement Questions:

Diana Smith
Public Involvement Coordinator
Phone: (360) 407-6255
Diana.Smith@ecy.wa.gov

DOCUMENT REVIEW LOCATIONS

Milton/Edgewood Library
900 Meridian East, Suite 29
Milton, WA 98354
(253) 548-3325

Tacoma Main Library
1102 Tacoma Avenue South
Tacoma, WA 98402
(253) 292-2001

Citizens for a Healthy Bay
535 Dock Street, Suite 213
Tacoma, WA 98402
(253) 383-2429

**WA Department of Ecology
Southwest Regional Office**
300 Desmond Drive SE
Lacey, WA 98503
By appointment only:
Contact Susie Baxter
PublicDisclosureSWRO@ecy.wa.gov
(360) 407-6365

Ecology's Toxics Cleanup Website
<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=3618>

Facility Site ID #: 84531356

Cleanup Site ID #: 3618



Areas of Contamination

Site studies found arsenic in:

- **Soil** — in a broad area called the core remediation area (see page 3). Arsenic reaches up to 16 feet below ground.
- A soil **“hot spot”** — a small area with the highest levels of arsenic, located on the west side of the core remediation area. Here, arsenic in soil is in contact with groundwater.
- **Groundwater** — mostly in the core remediation area, and also extending east of Hylebos Creek. A groundwater hot spot is next to the soil hotspot.

Groundwater is water that collects, fills, and flows through open spaces between soil and sediment particles, and through cracks in rock.

This contaminated groundwater is not a threat to the drinking water supply. Water for the area is supplied by deep wells.

- **Sediment** — samples collected on the bank of the Hylebos Creek had arsenic above cleanup levels for freshwater.

Why Cleanup Matters

The USG Highway 99 site is located on Hylebos Creek, which connects to Puget Sound through the Hylebos Waterway. Cleaning up the land around the creek is an important step in making this waterway safer and healthier for humans and wildlife.

What is Rock Wool?

Rock wool is an insulating and fire-proofing material. It is made by heating rock until it is molten and blowing or spinning it into fine fibers.

Arsenic is a toxic metal. It can occur naturally in the soil or come from industrial processes. Arsenic can be harmful to human health. For more information visit:
www.atsdr.cdc.gov/toxfaqs/tf.asp?id=19&tid=3

Cleanup Plan

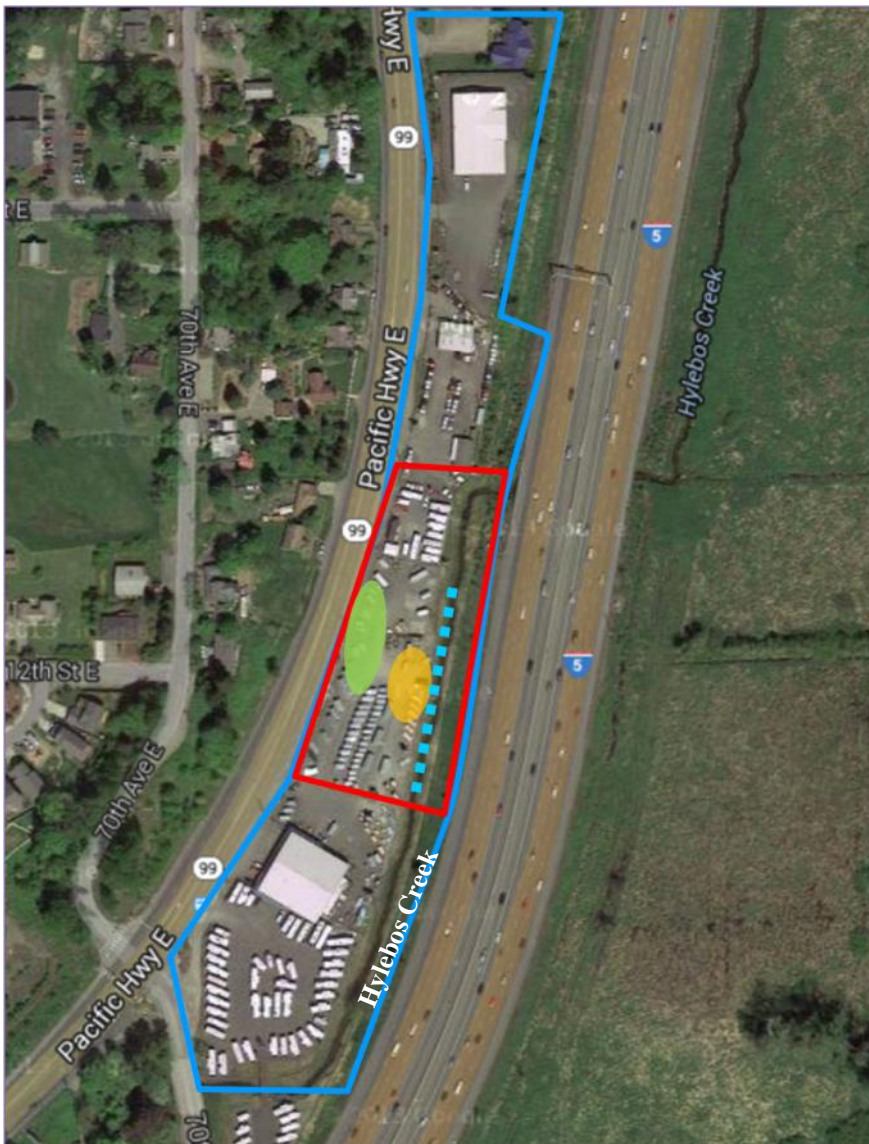
Under the draft cleanup plan, USG will:






- Study the soil hot spot to better define the area.
 - Solidify or chemically stabilize the arsenic within the soil hot spot using a cement-based mixture. This may begin with a pilot test.
 - Treat site groundwater (including hot spot) using in-situ chemical oxidation (see page 3). USG will use injection wells or trenches. They will do a pilot test.
 - Replace part of existing pavement with permeable pavement. This allows precipitation, like rainwater, to infiltrate soil and groundwater. This will help oxidize groundwater and minimize arsenic movement.
 - Monitor groundwater to ensure arsenic levels are naturally declining (called natural attenuation).
 - Remove polluted sediment from Hylebos Creek. USG will restore the area with clean sand.
 - Apply land use controls or groundwater use restrictions. The property owners will need to record an environmental covenant (EC) for their properties.
- An EC is a legal document that is attached to the property deed. It prohibits activities that may result in impacts to human health and the environment due to exposure to hazardous substances left at the site.
- Submit a monitoring plan that describes how they will monitor sediment, soil, and groundwater after cleanup to make sure cleanup levels are reached.

What Happens Next?

1. After the comment period ends, Ecology will respond to comments we received.
2. We will finalize the cleanup plans and sign the agreed order.
3. USG will do the cleanup work.

Site Map



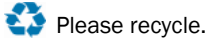
Approximate site boundary	
Core Remediation Area	
Soil hot spot	
Groundwater hot spot	
Impacted sediment	

In-Situ Chemical Oxidation (ISCO)

The cleanup plan proposes treating groundwater with ISCO. This will help speed up the natural attenuation of arsenic. Natural attenuation relies on natural physical, chemical, or biological processes to lower contamination over time.

In ISCO, a chemical called an “oxidant” is injected into groundwater, usually through wells. Then a chemical reaction happens between naturally occurring iron, oxygen, and the arsenic. This changes the arsenic to a less mobile form. Oxidants that can be used include potassium, sodium persulfate, ozone, or hydrogen peroxide.

The benefit of ISCO is it’s “in-situ”, meaning it can be done in place without excavating soil or pumping and treating groundwater. For this site, it may also reduce the ability of arsenic in the soil hot spot to leach into groundwater.



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