



Otter Creek Sediment Cleanup Complete

Otter Creek and Confluence Sediment Cleanup

Toledo and Oregon, Ohio

November 2021

Cleanup possible through GLRI

The Otter Creek Sediment Cleanup project was made possible through the **Great Lakes Restoration Initiative (GLRI)**.

GLRI is the largest investment in the Great Lakes in two decades. Sixteen federal departments or agencies are working together on five priorities:

- Cleaning up Great Lakes Areas of Concern;
- Preventing and controlling invasive species;
- Reducing nutrient runoff that contributes to harmful/nuisances algal blooms;
- Restoring habitat to protect native species; and
- Laying the foundations for future restoration actions with education and outreach.

The GLRI's **Great Lakes Legacy Act**, or GLLA – under which the Otter Creek work was done – provided up to 65 percent of the cost of sediment cleanup with a non-federal entity contributing the balance. Legacy Act partnerships have cleaned up 24 sites in six Great Lake states and remediated 4.3 million cubic yards of contaminated sediment.

For more information on the project visit:

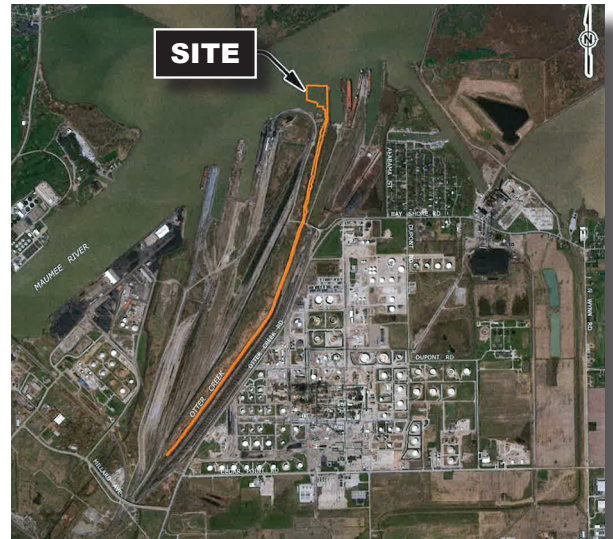
www.epa.gov/great-lakes-aocs/otter-creek-legacy-act-cleanup

The U.S. Environmental Protection Agency, along with federal and non-federal partners, removed contaminated sediment from Otter Creek in Oregon, Ohio. Sediments in the lower 1.7 miles of Otter Creek and its confluence within Maumee Bay were contaminated with elevated levels of polycyclic aromatic hydrocarbons (PAHs), and diesel range organics (DROs). Otter Creek is located within the Maumee Area of Concern (AOC).

Between 2006 and 2019, EPA conducted investigations and surveys along the creek to identify the project limits based on the distribution of contaminants.

Cleanup approach

Approximately 50,400 cubic yards of contaminated sediment was removed from the creek and its confluence within Maumee Bay by hydraulic dredging (This amount of sediment would fill three football fields to a height of 10 feet). Hydraulic dredging involves using a vacuum-type device to remove sediment by suction. The dredged sediment was pumped through a submerged pipeline to the nearby Toledo-Lucas County Port Authority's confined disposal facility, where it will remain indefinitely.



A one-foot sand cover mixed with organic material was placed in the creek after dredging to provide a barrier to any remaining residuals. Habitat improvements were installed on the lower reach of the creek to create opportunities for fish and other aquatic species to rest and forage for food.

Cleanup objective and goals

The cleanup objective for the site was to reduce potential harm from exposure to chemicals accumulated in the sediment. The goals were to reduce PAH and DRO exposure to organisms and fish that live and feed on the bottom of the creek, and to reduce associated toxicity below levels of concern.



Frequently Asked Questions

What is a confined disposal facility?

A Confined Disposal Facility (CDF) is a structure that is specifically engineered to contain dredged material. A dike is built above the high-water level and sediment is placed behind it. Sediment from Otter Creek was placed at a specific area at the CDF where similar sediments have historically been placed.

How was sediment transported to the confined disposal facility? Will the sediment cause an odor?

The pipeline carrying the contaminated sediment to the confined disposal facility was submerged and floated depending on its location. No, the sediment will not cause any odor as the contaminants are bonded to the sediment and will remain at the port's CDF indefinitely.



When was the cleanup plan completed?

- CDF Modifications - November 2020
- Hydraulic Dredging - March - June 2021
- Sand Cover Placement - July - August 2021
- Habitat Improvements - August 2021
- Project Completion - August 2021

What habitat improvements were installed?

Habitat structures were installed on the lower 0.5 miles of the creek to support fish and other aquatic species. Willows were also planted adjacent to the structures to reduce erosion and enhance habitat.

How was the cleanup plan chosen?

The cleanup plan was chosen from among a set of alternatives, or cleanup options, developed in the feasibility study. The alternatives were evaluated based on considerations like effectiveness in reducing contaminant levels, technical feasibility, and cost.

Whats next for Otter Creek?

Freshwater mussels will be repopulated within the creek in spring of 2023 by relocating mussels from a nearby source. USEPA will also be monitoring the site by completing various studies over the next several years to measure the effectiveness of the clean-up.