

DIAMOND ALKALI SUPERFUND SITE/PASSAIC RIVER CLEANUP

ESSEX, BERGEN, HUDSON, AND PASSAIC
COUNTIES, NEW JERSEY



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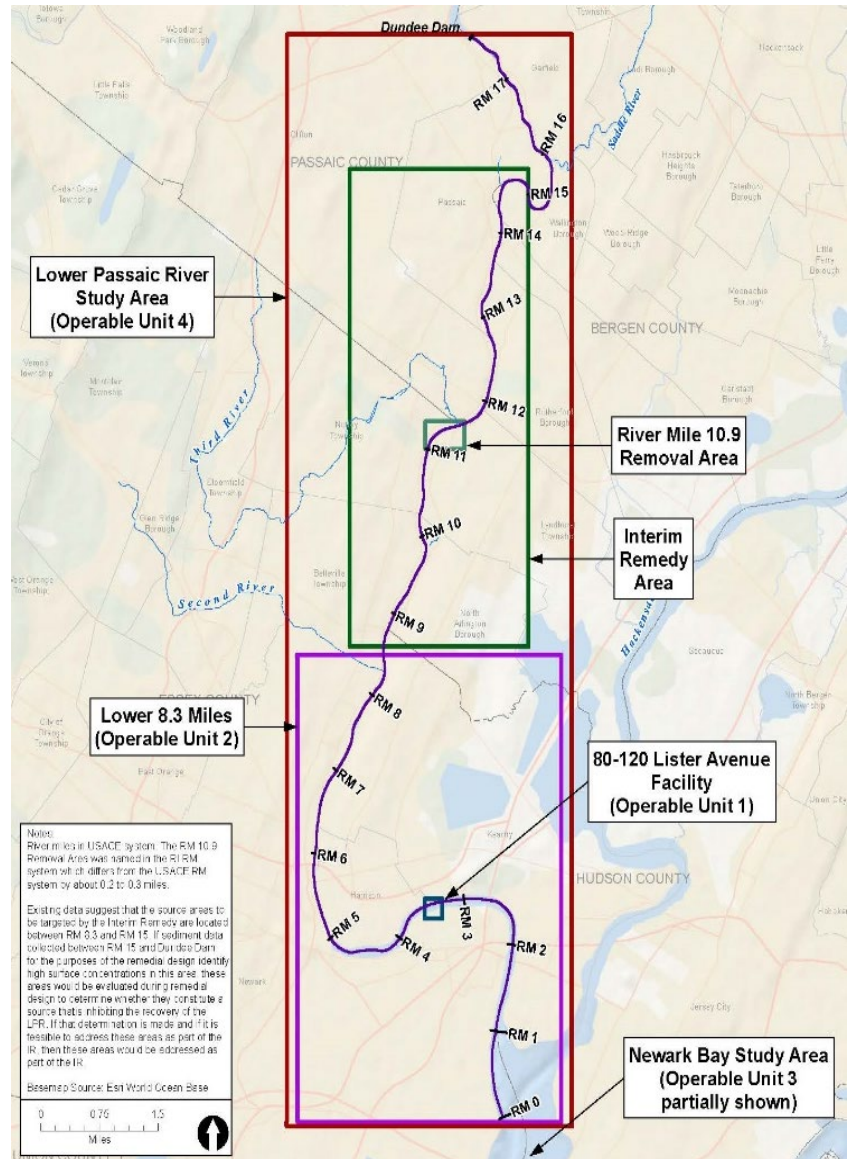
Overview

The Lower Passaic River was heavily polluted by industrial activities that left behind dioxin, polychlorinated biphenyls (PCBs), and other toxic contaminants in the river's sediment. The U.S. Environmental Protection Agency (EPA), in coordination with federal and state partners, is overseeing cleanup actions to address this contamination under its Superfund program. The ongoing cleanup of this river is very complex, and EPA has divided the Diamond Alkali Superfund site into four parts, called Operable Units.

Operable Unit 1 (OU1) is a former herbicide manufacturing facility at 80-120 Lister Avenue in Newark, NJ. Operations at this facility, including manufacturing the herbicide known as "Agent Orange," contaminated soil on the facility property and sediment in the river. At the time that EPA selected the cleanup for OU1, there was no viable option for off-site disposal of the contaminated soil and debris, so the cleanup called for this material to be placed within a specially-designed containment cell, which included a cap and underground walls called slurry walls that impede or stop groundwater flow, as well as a flood wall. This work was completed in 2001. It also included a groundwater collection and treatment system, which is currently operating. Containing the contaminated soil and debris is considered an interim cleanup and EPA is currently looking at technologies that can be considered for a final cleanup plan. EPA anticipates proposing that final cleanup plan in the fall of 2024.

Under EPA oversight, the potentially responsible party (PRP), Occidental Chemical Corporation, performed the cleanup for OU1, and is operating and maintaining the former manufacturing facility.

Operable Unit 2 (OU2) is the lower 8.3 miles of the Passaic River, from the river's mouth at Newark Bay to approximately the boundary between the City of Newark and Belleville Township.



EPA finalized a plan to clean up this stretch of the river in 2016. This plan includes some dredging and placing a cap over the bottom of the river, bank-to-bank, to isolate the contaminated sediment from the rest of the river system.

Under the cleanup plan, up to 3.5 million cubic yards of sediment will be dredged from the river before the cap is installed, to ensure the cap does not make flooding worse. The cleanup will also accommodate the federally authorized navigation channel in the 1.7 miles of the river closest to Newark Bay. The sediment dredged from this part of the river will be treated at a specially-designed sediment processing facility and then disposed of off-site at licensed disposal facilities.

Occidental Chemical Corporation is currently doing the engineering work needed to design this complex work in the lower 8.3 miles of the Passaic River, and EPA anticipates that engineering work will be completed in the beginning of 2024. Once it is completed, it will take a few years to build a facility to treat the sediment and water dredged out of the river, followed by approximately six to eight years to perform the dredging and capping. EPA expects the cleanup to be performed and funded by the PRPs.

Operable Unit 3 (OU3) is Newark Bay. Occidental Chemical Corporation, under EPA oversight, is currently doing a comprehensive study called a remedial investigation and feasibility study (RI/FS) to examine the nature and extent of contamination and options for addressing it. EPA approved the report that lays out the results of the investigation in May 2022 and anticipates the feasibility study will be submitted for EPA review in 2024. EPA expects to use this information to propose a cleanup plan for this OU in 2025.

Operable Unit 4 (OU4) is the entire 17-mile tidal portion of the Passaic River, from the river's mouth at Newark Bay to Dundee Dam in Garfield, NJ.

In September 2021, EPA finalized an interim cleanup plan for the upper 9 miles of the Lower Passaic River that calls for addressing specific areas of sediment that serve as sources of contamination to the rest of the river and to the food chain. The cleanup plan includes dredging and capping areas of the riverbed as well as areas at depth that may become exposed through erosion. The dredged materials will be processed at one or more sediment processing facilities for off-site disposal at licensed disposal facilities.

After the interim cleanup has been completed, EPA will sample and measure the progress towards meeting the cleanup goals that are still being developed, in consultation with the New Jersey Department of Environmental Protection (NJDEP) and decide if any further work is needed. EPA will document a final cleanup plan in a Record of Decision.

EPA is currently overseeing the Occidental Chemical Corporation's engineering work needed to design the cleanup in the upper 9 miles. The design and construction phases are each expected to take about three to four years to complete. EPA is working to ensure that the cleanup is performed and funded by the parties responsible for releasing hazardous substances into the river, and that the work is performed under EPA oversight.

Once these various river and bay cleanups have been completed, it will still be many years before the levels of contamination in fish and crabs have decreased to levels that are considered safe to eat.

Site History

In the early 1980s, dioxin-contaminated soil was discovered at the former Diamond Alkali manufacturing facility at 80-120 Lister Avenue, Newark, NJ. EPA and NJDEP initiated emergency cleanup work, and in 1984, EPA added the site to the National Priorities List. An interim cleanup for OU1 was completed in 2001. EPA and NJDEP found contaminants in the sediment of the Passaic River in 1984 and continued investigating the river in the 1990s. In the early 2000s, EPA expanded the study to address the 17-mile Lower Passaic River, and in May 2007, EPA signed an agreement with a group of potentially responsible parties known as the Cooperating Parties Group (CPG) to complete the 17-mile study, under EPA oversight.

During the 17-mile study, the sediment of the lower 8.3 miles was found to be a major source of contamination to the rest of the river and Newark Bay, leading to EPA selecting a cleanup plan for OU2. In addition, Tierra Solutions, Inc. (Tierra), on behalf of Occidental Chemical Corporation and with EPA oversight, dredged sediment with very high levels of dioxin contamination from the Lower Passaic River adjacent to the 80-120 Lister Avenue facility in 2012. In 2014, the CPG, under EPA oversight, dredged and capped a highly contaminated mudflat at river mile 10.9 on the east bank of the river in a park near Lyndhurst, NJ.

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