

NEWTOWN CREEK SUPERFUND SITE BROOKLYN, QUEENS, NY

SUMMER 2021

REGION 2



Site Update

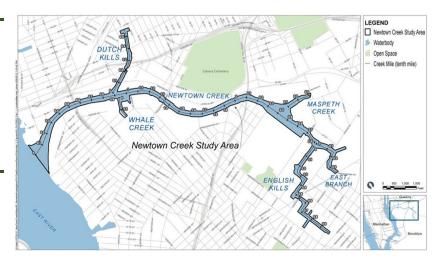
EPA is continuing its work to address contamination at the Newtown Creek Superfund site, which sits on the border of Brooklyn and Queens. The creek is a tributary of the East River and includes five branches along its 3.8-miles reach.

Site Background

Historically, Newtown Creek drained the uplands of western Long Island and flowed through wetlands and marshes. However, due to heavy industrial development and government activities from the 1800's, formerly wet areas were filled in. By the mid-1800s, the area next to Newtown Creek was one of the busiest industrial areas in New York City and during World War II the Creek was the nation's busiest waterway. Newtown Creek has been home to oil refineries, petrochemical plants, fertilizer and glue factories, sawmills, and, coal yards. In addition to the industrial use, New York City began dumping raw sewage into the water as far back as 1856. Contamination from many of these facilities has gotten into the water and the sediment in Newtown Creek. Some factories and facilities still operate along the creek.

EPA added Newtown Creek to its National Priorities List (NPL) on September 29, 2010, making it a Superfund site. Complex Superfund sites are often divided into several distinct areas called operable units (OUs).

The Newtown Creek Superfund site is being addressed as three operable units.



What is an operable unit?

During cleanup, a site can be divided into a number of distinct areas depending on the complexity of the problems associated with the site. These areas called operable units may address geographic areas of a site, specific site problems, or areas where a specific action is required.



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Operable Unit 1 (OU1) covers the water and sediment of Newtown Creek. A group of six parties that are considered potentially responsible for the contamination in Newtown Creek entered into an Administrative Settlement Agreement and Order on Consent (AOC) with EPA that requires them to do investigation and study work referred to as a Remedial Investigation (RI) and Feasibility Study (FS) under EPA oversight. Five of these parties (Phelps Dodge Refining Corporation, Texaco, Inc., BP Products North America Inc., the Brooklyn Union Gas Company D/B/A National Grid NY, and ExxonMobil Oil Corporation) have organized themselves as the Newtown Creek Group, and the sixth party is the New York City Department of Environmental Protection (NYCDEP).

The first phase of the work, which included surveys of physical and ecological characteristics of Newtown Creek, as well as sampling of surface water, surface sediment, subsurface sediment and air, began in February 2012 and was completed in March 2013. The second phase, which began in May 2014 and was completed in 2017, included further delineation of contamination in surface sediment, subsurface (deeper) sediment and surface water. The work also included investigating liquid contaminants that do not easily mix with or dissolve in water and remain in a separate phase called non-aqueous phase liquid (NAPL), sampling groundwater and creek-life, such as fish, and other sampling in support of the human health and ecological risk assessments. Additional fieldwork for the FS, including further NAPL delineation, began in spring 2017 and was completed in spring 2019, and additional fieldwork is planned, including additional groundwater sampling. EPA expects to propose a cleanup plan for OU1 (the entire creek) no sooner than 2024.

Operable Unit 2 (OU2) relates to current and reasonably anticipated future releases of hazardous substances from combined sewer overflow (CSO) discharges to Newtown Creek. Under an AOC with EPA, and with EPA oversight, NYCDEP conducted a focused feasibility study (FFS) to evaluate the impacts of hazardous substances released to the creek from CSO discharges under current and anticipated future flow conditions. A plan to address these discharges is identified in the Combined Sewer Overflow Long Term Control Plan (LTCP) for Newtown Creek, which was separately required of New York City under the Clean Water Act approved by the New York State Department of Environmental Conservation.

Following completion of the city's FFS, EPA proposed in November 2019 and finalized in April 2021 a decision that no further action is needed at this time under the Superfund program to address the volume of CSO discharges to Newtown Creek. EPA's final plan requires monitoring to ensure that the assumptions made in reaching this conclusion remain valid and, if needed, additional actions to address contamination entering the creek from the combined sewer discharges may be required.

Operable Unit 3 (OU3) refers to the evaluation of a potential interim, early action remedy that would address specific areas of contamination in the creek from miles 0 to 2. The NCG conducted an FFS under an AOC to see if an interim early action remedy for OU3 was scientifically and technically appropriate and to develop and evaluate a focused range of cleanup action alternatives for OU3.

The NCG conducted the FFS promptly and efficiently, in an acknowledgement of the fact that part of the benefit of conducting an early action would be to help inform the development of an OU1 cleanup plan. EPA's review of the technical positions underlying the OU3 early action, as well as several other technical and stakeholder concerns, did not fully support moving forward with this interim early action. Therefore, EPA determined that the selection of a remedy for this portion of the Creek should be deferred pending completion of the OU1 studies.

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