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EPA Newtown Creek website:
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Site Background

Newtown Creek is a tidal arm of the New York-New Jersey Harbor Estuary, and forms the northwest border of Brooklyn with the southwest border of Queens in New York City. The creek is a tributary of the East River and includes five branches (or tributaries) along its 3.8-mile reach. Historically, Newtown Creek drained the uplands of western Long Island and flowed through wetlands and marshes. However, due to heavy industrial development and governmental activities dating from the 1800's, formerly wet areas have been filled, Newtown Creek has been channelized, and its banks have been stabilized with bulkheads and rip rap. This historic development resulted in changes in the nature of Newtown Creek from a natural drainage condition to one that is governed largely by engineered and institutional systems.

In the mid-1800s, the area next to the creek was one of the busiest industrial areas in New York City. The banks of Newtown Creek were lined with industrial facilities including more than 50 oil refineries, as well as petrochemical plants, fertilizer and glue factories, sawmills, and lumber and coal yards. Newtown Creek was crowded with commercial vessels, including large boats bringing in raw materials and fuel and taking out oil, chemicals, and metals. In addition to the industrial pollution that resulted from all of this activity, the city began dumping raw sewage directly into the water in 1856. Currently, factories, warehouses, and municipal facilities including the Newtown Creek Wastewater Treatment Plant, still operate along the creek. Various contaminated sites along the creek have contributed to the contamination in the creek.

Newtown Creek Superfund Site

On September 29, 2010, Newtown Creek was added to the National Priorities List (NPL) making it a Superfund site. During remedial investigation and cleanup, complex sites may be divided into several distinct areas or subjects to make the CERCLA investigations, studies, and response actions more efficient. These areas or subjects, called operable units (OUs), may address geographic areas, specific problems, or medium (e.g., groundwater, soil) where a specific action is required.



Figure 1: Newtown Creek



In May 2017, EPA established a task force to restore the Superfund program to its rightful place at the center of the Agency's core mission to protect health and the environment.

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Initially, the Newtown Creek study area was addressed as one operable unit; however, two additional operable units were recently added.

Operable Unit 1 (OU1)

This operable unit includes the entire Study Area, defined as the waters and underlying sediments of Newtown Creek. A 2011 Administrative Settlement Agreement and Order on Consent (AOC) between EPA and six respondents including 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 (five private entities who have organized as the Newtown Creek Group, or NCG), and the New York City Department of Environmental Protection (NYCDEP), requires the respondents to perform a Remedial Investigation (RI) and Feasibility Study (FS) for the site under EPA oversight. The Phase 1 work, which included surveys of physical and ecological characteristics of Newtown Creek, as well as sampling of surface water, surface sediments, subsurface sediments and air, began in February 2012 and was completed in March 2013. The Phase 2 work, which began in May 2014 and completed in 2017, included, but was not limited to, further delineation of surface sediments, subsurface sediments and surface water, as well as the investigation of non-aqueous phase liquid (NAPL), groundwater and other sampling in support of the human health and ecological risk assessments, such as biota sampling. An additional phase of fieldwork for the FS, including ebullition studies and further NAPL delineation, began in Spring 2017 and was completed in Spring 2019. EPA expects to propose a cleanup remedy for the entire Study Area no sooner than 2023.

Operable Unit 2 (OU2)

OU2 relates to current and reasonably anticipated future releases of hazardous substances from combined sewer overflow (CSO) discharges to the Study Area. Under an EPA administrative order and with EPA oversight, NYCDEP implemented a focused feasibility study (FFS). The objective of the FFS was to evaluate the impacts of hazardous substances released and anticipated releases to the Study Area from CSO discharges under current and reasonably anticipated future flow conditions as identified in the NYSDEC-approved Combined Sewer Overflow Long Term Control Plan for Newtown Creek. Following completion of the FFS, on November 21, 2019, EPA publicly released a Proposed Plan outlining its preferred approach for addressing the volume of CSO discharges to the Creek. Following a public comment period which commenced on November 21, EPA will issue a Record of Decision (ROD) to document the Agency's selection of a remedial action to address volume control of CSO discharges to the creek.

Operable Unit 3 (OU3)

OU3 refers to the evaluation of a potential interim, early action remedy that will address creek miles 0 to 2 of the Newtown Creek Study Area. With EPA oversight, NCG respondents are currently conducting an FFS pursuant to an administrative consent order. The objectives of this FFS are to confirm whether an interim early action remedy for OU3 is appropriate and to develop and evaluate a focused range of remedial alternatives for this OU.



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