completed in 1998 and cleanup activities began in March 1999. Over 45,000 cubic yards of mercury-contaminated sediments were excavated from four areas (Eastern Wetland, Trolley Brook, Outfall Creek, and Lower Raceway) and disposed of in the on-site landfill. EPA completed all remedial and restoration activities by August 2001. The Massachusetts Department of Environmental Protection is currently responsible for conducting operation and maintenance activities.

Sudbury River:

OPERABLE UNIT 4: Initial investigations showed that sediments and fish are contaminated elevated concentration of mercury attributable to the Nyanza site. EPA gathered U.S. Government and university scientists to conduct additional studies focused on mercury due largely to its potential for bioaccumulating in fish and mammals. The scientists' findings were placed in local repositories in late 1997 and published in May 2000. From the fall of 2003 through the summer of 2004, EPA conducted extensive sampling along the entire 26 miles of river in support of both revised Risk Assessments. Media sampled include fish, sediment, surface water, crayfish, and mink as well as tree swallows, songbirds, kingfisher and ducks. EPA has completed its review of this data and prepared the final Supplemental Human Health Assessment (2006) and Ecological Risk Assessments (2008) both of which are available via links below. Additional sampling (2008) has taken place to develop and calibrate a Mercury Fate and Transport computer model which was used to evaluate the effectiveness of various remedial alternatives. This evaluation is described in the Draft Feasibility Study (June 2010). In September 2010, EPA memorialized its cleanup decision by signing the Nyanza OU4 (Sudbury River) Record of Decision (see link and description below). The selected remedy relies on monitoring, institutional control such as continued posting of warning signs, and the addition of a thin-layer sand cap over the most-highly contaminated sediments. In 2011, EPA and the U.S. Army Corps of Engineers completed supplemental investigations to aid in the preparation of the Remedial Design. The Remedial Design was completed in May 2013. During the interim period during which EPA was awaiting project funding, EPA Region 1 collected fish (in 2014) from that portion of the Sudbury River to be capped. Based on a larger decrease in fish tissue concentration than was predicted, in 2015, EPA suspended the sand capping so as to conduct more fish tissue monitoring in other portions of the Sudbury River. This effort is on

going.

Environmental Progress

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The excavation of contaminated soil and capping of the Hill area of the site have reduced the potential of exposure to hazardous substances by controlling contaminant migration and isolating wastes. Wetland excavations and restoration have eliminated the on-going mercury contamination source to the Sudbury River. In 2007, the EPA re-posted the river with signs warning against the consumption of contaminated fish. Annual inspection of warning signs has occurred in both 2011, 2012, 2013 and 2014. These actions have made the Nyanza Chemical Waste Dump site safer while remaining cleanup actions are being evaluated.

Current Site Status

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In early 2006, the Massachusetts Department of Public Health announced the findings of their multi-year study regarding the link between unusually high cases of rare cancers and past site exposures. See DPH's web site for information on the Ashland Nyanza Health Study Final Report issued in April 2006.

In August 2006, EPA released a draft Explanation of Significant Differences (ESD) regarding the groundwater cleanup (Operable Unit 2) at the site to address the installation of vapor mitigation systems in 40 to 50 structures (mostly homes) located in the northeast portion of the plume and the extraction of DNAPL with off-site treatment and disposal of the extracted DNAPL with possible enhancements. These actions are outlined in greater detail in the ESD, which can be viewed via the link under "Decision Documents" below. Construction of the vapor mitigation systems was completed in 2008 while work on the DNAPL extraction system is ongoing. The long-term maintenance of the Vapor Intrusion systems is performed annually by the MassDEP. EPA continues to conduct exploration adjacent to former source areas to determine the feasibility of removing severely-contaminated groundwater.

Regarding OU4 (Sudbury River), risk assessments were completed in 2006 (Human Health) and 2008 (Ecological). The human health assessment concluded that a risk of adverse health effects exist to a "Recreational fisherman" (i.e., a person whom might consume their catch at a certain frequency). There is human health risk from either contact with or ingestion of surface water or sediment. In regard to the completed ecological risk assessment, 229 measurement endpoints (species from various river reaches) were assessed. While some model-predicted results indicated the possibility of risk, the results of site-specific sampling (birds, mammals, fish) concluded that there are no "population level" ecological risks. The public comment draft of the Feasibility Study was released in June 2010 along with EPA's "Proposed Plan" for cleanup of the Sudbury River (Operable Unit 4). In September 2010, after consideration of public

U.S. ENVIRONMENTAL PROTECTION AGENCY

Waste Site Cleanup & Reuse in New England

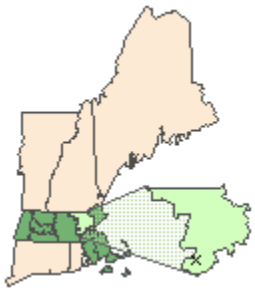
Serving Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont & 9 Tribal Nations

Site Type: **Long Term/National Priorities List (NPL)**

NYANZA CHEMICAL WASTE DUMP

Ashland, Massachusetts

Middlesex County
Street Address: MEGUNKO RD
Zip Code: 01721
Congressional District(s): 03
EPA ID #: MAD990685422
Site ID #: 0100948
Site Aliases: Nyanza,



Map this site in Cleanups in My Community

Site Responsibility: Federal, State

NPL LISTING HISTORY	
Proposed Date	10/23/1981
Final Date	09/08/1983

Site Description

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This page will automatically redirect to the site's new Site Profile Page at www.epa.gov/superfund/nyanza

Please make a note.
www.epa.gov/superfund/nyanza

The Nyanza Chemical Waste Dump site is a 35-acre parcel of land located adjacent to an active industrial complex. From 1917 to 1978, the site was used to produce textile dyes, intermediates, and other products. Nyanza Inc. operated on this site from 1965 until 1978, when it ceased operations. Large volumes of industrial wastewater containing high levels of acids and numerous organic and inorganic chemicals, including mercury, were generated by these companies. Some of the wastes were partially treated and discharged into the Sudbury River through a small stream, referred to as Chemical Brook. Over 45,000 tons of chemical sludges generated by Nyanza's wastewater treatment processes, along with spent solvents and other chemical wastes, were buried on site. The area that contained the