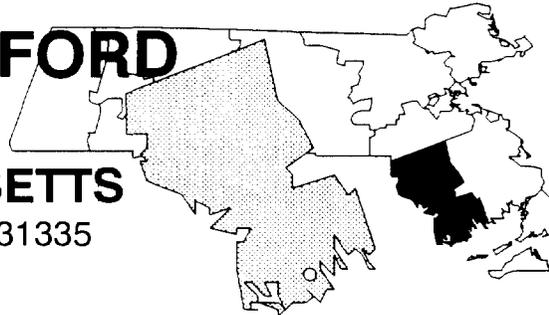


13.5.3

# NEW BEDFORD SITE MASSACHUSETTS

EPA ID# MAD980731335



**EPA REGION 1**  
Bristol County  
55 miles south of Boston

Superfund Records Center  
SITE: NEW BEDFORD  
BREAK: 13.05  
OTHER: 47611

## Site Description

The 18,000-acre New Bedford site is an urban tidal estuary consisting of a harbor and bay that are highly contaminated with polychlorinated biphenyls (PCBs) and heavy metals. Manufacturers in the area used PCBs while producing electric capacitors from 1940 to 1978. Until the late 1970s, when the use of PCBs was banned by the EPA, factories discharged industrial process wastes containing PCBs into the harbor. As a result, PCB contamination in the New Bedford Harbor area is widespread. The harbor is contaminated to one degree or another for at least 6 miles, from the upper Acushnet River into Buzzards Bay. Approximately 98,500 people are living within 3 miles of the site. A 5-acre northern portion of the Acushnet River Estuary was contaminated with high levels of PCBs (about 20,000 ppm on average) and has been identified as the "hot spot" area of the site. Measurements taken at the site indicate tidal action transports about one half pound per day of PCBs from the upper harbor to the lower harbor and ultimately, into the larger bay. The contamination of the harbor and bay sediments by high concentrations of PCBs has resulted in closing the area to lobstering and fishing, and has limited recreational activities and harbor development.

**Site Responsibility:** This site is being addressed through Federal and Commonwealth actions.

<b>NPL LISTING HISTORY</b> Proposed Date: 07/23/82 Final Date: 09/08/83
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## Threats and Contaminants



PCBs and heavy metals, notably cadmium, lead, copper, and chromium, have been identified in sediments, soil, and marine life. The major public health risks involve coming into direct contact with contaminated sediments and ingesting contaminated fish and shellfish from the area. Levels of PCBs in some fish and lobsters at the site exceed the Food and Drug Administration's (FDA) limit for PCBs in edible seafood. There is an increased risk of cancer and other diseases for people who repeatedly eat PCB-contaminated seafood from the site. Currently, fishing is restricted to minimize this risk. The risk to plant or animal life is greatest for bottom-dwelling organisms that have direct contact with contaminated sediments.

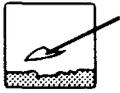
## Cleanup Approach

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This site is being addressed in four stages: initial actions and three long-term remedial phases focusing on the hot spot area, the Acushnet River and New Bedford harbor, and the Buzzards Bay Area.

## Response Action Status

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**Initial Actions:** In 1982, the Coast Guard erected signs warning the public of the presence of PCBs in the harbor and industrial areas. The Commonwealth intensified efforts to restrict access to the harbor. Bilingual warning signs in English and Portuguese were posted along the New Bedford and Fairhaven shoreline. When the signs were destroyed by winter weather, the EPA replaced them. In 1985, 2,000 feet of chain-link fence at two recreational facilities were erected to keep people out of the contaminated areas. In 1992, additional signs with warnings in English, Portuguese, and Spanish were installed along the shoreline. Maintenance of these and other, newer signs continues as needed.



**Hot Spot Area:** In 1983, the EPA began to evaluate alternatives for addressing harbor contamination. In 1985, the investigation was expanded, allowing the Army Corps of Engineers to conduct demonstrations of dredging equipment and construction and testing of disposal facilities in the estuary, while continuing to carry out site sampling, analysis, and research. Hydraulic dredges were tested, sediment disposal facilities were built, and extensive environmental monitoring was conducted to determine whether dredging and construction activities could occur without spreading contaminants. The engineering study conducted by the Corps was used by the EPA to design the cleanup approach for the site. The EPA's original remedy for the hot spot area included dredging and incineration of contaminated sediments above 4000 ppm PCBs to permanently reduce the migration of contaminants throughout the harbor area. Due to local and congressional opposition to incineration, the EPA has elected to postpone the incineration component of the hot spot remedy, and explore alternative treatment technologies. Dredging of the 14,000 cubic yards of hot spot sediment was completed in September 1995, the dredged sediment is being held in a lined and covered holding pond until treatment takes place. Decanted seawater from the sediments during dredging was treated on site. Pilot studies of solidification and chemical destruction technologies began in the fall of 1995.



**Acushnet River & New Bedford Harbor:** The EPA is currently evaluating different alternatives for cleaning up this portion of the site. The EPA has been meeting extensively with the local communities to build a consensus for this second phase of cleanup. About half a million cubic yards may require dredging and disposal. The EPA plans to issue a proposed cleanup plan for this area in 1996, after which design and construction of the cleanup activities will begin. Given the scale of contamination in this area, ten years may be required for completion of all design and construction activities.



**Buzzards Bay Area:** The EPA plans to initiate additional investigations of this area of the site (south of the hurricane barrier) to determine if additional cleanup is necessary.

**Site Facts:** In 1982, the EPA entered into Consent Agreements with two companies to address the PCB contamination on their properties. The EPA, the Commonwealth of Massachusetts, and five companies that used PCBs have reached settlement regarding the EPA's claims.

## Environmental Progress



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Posting warning signs, fencing contaminated areas and dredging the hot spot area sediments have reduced the threat posed by the site while further investigations leading to the selection of final cleanup remedies are conducted.

## Site Repository



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Wilkes Branch New Bedford Free Library, 1911 Acushnet Avenue, New Bedford, MA  
(508) 991-6214