

NOAA Hazardous Waste Site Report

Bridesburg Dump (III-24)
Philadelphia County, Pennsylvania
April 13, 1984

Location and Nature of Site:

Bridesburg Dump is a 15-acre waste site, located on the flood plain of the west bank of the Delaware River adjacent to Philadelphia International Airport (Figure 1). The dump has reportedly received various types of materials including construction and road rubble, waste and slag from aluminum processing, waste mortar, and drummed waste. Material in mounds of metal and mortar waste and open drums were sampled and were found to contain high concentrations of metals (chromium, lead, copper, antimony) and organic compounds (phthalate, di-n-butyl phthalate).

No cleanup of the site has occurred, although there has been some natural revegetation of the area. The owners of the site reportedly include Conrail, Inc. and the City of Philadelphia.

Proximity of Chemical Hazard to Marine Resources:

The site is approximately 100 yards from Franklin Creek which drains into the Delaware River 800 yards away. The site slopes down toward the river and the dump extends to the shoreline of the river. Samples were taken by the Environmental Protection Agency in August of 1981 upstream and downstream of the dump in both Franklin Creek and Delaware River. The highest levels of the following inorganics were detected (in ppb) downstream in Franklin Creek and upstream in the Delaware River, respectively: aluminum (1150,2300), chromium (20,30), barium (60,80), copper (40,40), iron (3340,3820), manganese (630, 210), zinc (110,190), boron (120,260), calcium (26,800,28,900), magnesium (8,800,9,700), sodium (24,900,30,900) and antimony (20,20).

The proximity of the site to the Delaware River and Franklin Creek and the levels of inorganics detected in those bodies of water indicates that the site may be releasing contaminants which would jeopardize marine resources.

Marine Resources at Risk:

The Delaware River and its tributaries provide a significant habitat for a variety of finfish resources (see Table 1).

Anadromous fish migrate through the Delaware Bay estuarine system during the early spring on their way to freshwater spawning grounds. For most of the anadromous fish of the Delaware Bay this occurs upstream

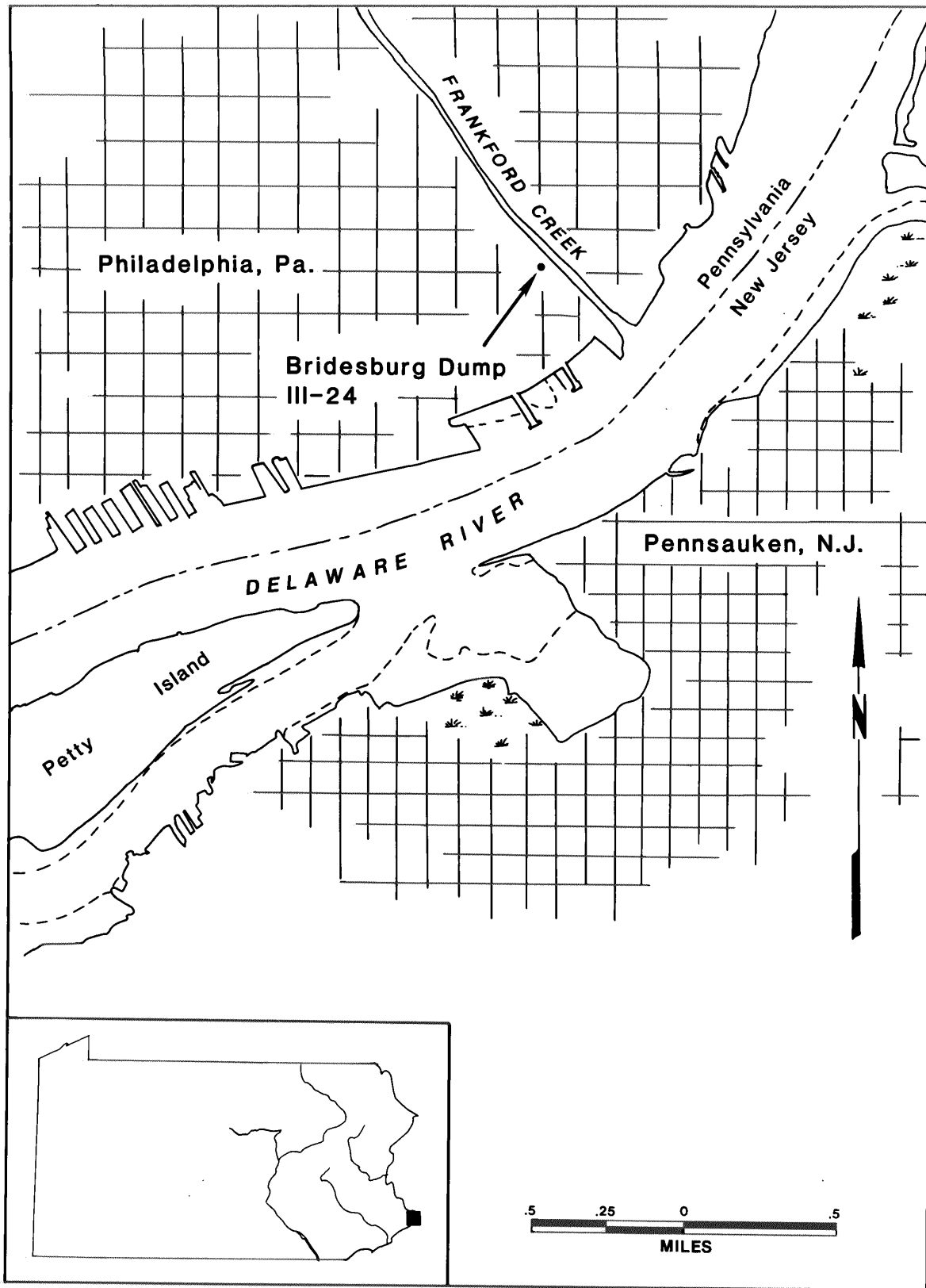


FIGURE 1. Site location.

of Burlington, New Jersey, although some spawning does occur in freshwater tributaries (4). The adults return to the lower parts of Delaware Bay. Juvenile fish, hatched in the spring, remain in the upper parts of Delaware Bay until the late summer and early fall, when they migrate back into the lower parts of the Bay (3).

This region of the Delaware River is unlikely to be an important nursery or spawning area for other anadromous fish due to the fairly high level of development in this area and to their preference for less saline waters for spawning, but many fish migrate through this area en route to upstream spawning grounds. Among these is the shortnose sturgeon, a species of special Federal concern. Some tidal flats are present in the vicinity of Philadelphia, and some species of fish may be harvested by recreational and commercial fishermen in the Delaware River adjacent to this site.

The Delaware Bay estuarine system is an important wintering area for many waterfowl and seabirds, particularly loons, grebes, and gannets. They tend to concentrate in coastal bays and wetland areas.

Table 1. Fishery Resources of Tidally Influenced Regions of the Delaware River Near Philadelphia (1, 2, 5)

Finfish Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
<u>Anadromous</u>						
Alewife			x		x	x
Blueback herring			x		x	
American shad			x		x	x
Shortnose sturgeon						x
Atlantic sturgeon						x
Striped bass			x		x	x
Gizzard shad			x		x	x
<u>Non-anadromous</u>						
Atlantic menhaden			x			
White perch			x		x	x
Flounder			x			
Bluefish			x			
Atlantic croaker			x			
Channel catfish	x					
White catfish					x	
Brown bullhead					x	
Bluegill	x				x	
Black crappie	x				x	

Summary of Site-Related Actions:

Site inspection and sampling of the Bridesburg Dump was conducted in May and August of 1981. Because EPA does not view the site as a significant hazard to human health, no enforcement or remedial action is planned.

Concerned Citizens of Bridesburg have, however, indicated that they would like the site cleaned up.

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References:

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