

NOAA Hazardous Waste Site Report

Wade (ABM) SITE (III-20)
Chester, Pennsylvania
April 13, 1984

Location and Nature of Site:

The Wade (ABM) Site covers three acres on the bank of the Delaware River in Chester, Pennsylvania (Figure 1). The site was originally a rubber reclamation facility, but has been used as an industrial waste storage and disposal facility since the early 1970s. Several thousand drums of toxic industrial waste were stored on the property, and the contents of many drums were poured directly onto the ground. In addition, thousands of gallons of waste were discharged illegally from tank trailers onto the ground. The site is contaminated with both toxic and carcinogenic compounds.

A fire which occurred in February 1978 destroyed many of the drummed wastes which were stockpiled at the time. As a result, large piles of debris containing exploded drums, building materials, tires, shredded rubber (from the rubber recycling operations) and chemically-contaminated earth, littered the property. Approximately 150,000 gallons of waste chemicals remained after the fire; most of the material was contained in 2,500 55-gallon drums located inside the fire damaged buildings, although a large portion was stored in 5 bulk tankers in the front lot.

In 1980 and 1981, contractors were engaged by the Pennsylvania Department of Environmental Resources and the Environmental Protection Agency to remove and dispose of the drums and their contents located in the buildings, to remove and dispose of the contents of the tankers, and to perform an investigation of the site's soil, groundwater, and air quality.

The responsible parties appear to be Mr. Wade (owner of the site), ABM Co. (transportation company) and numerous waste generators.

Proximity of Chemical Hazard to Marine Resources:

The Wade site is located in a heavily industrialized area less than one-quarter mile from the Delaware River, south of Philadelphia. According to Betz et al. (6), there appear to be two separate drainage systems on site. One system collects surface runoff from the paved area which drains into a catch basin that is part of the county sewage system. Only in cases of extremely heavy rainfall will surface runoff become great enough for contaminants to reach the Delaware River through this drainage system. The other system consists of a number of drains and sumps which are connected to an outfall pipe discharging into the Delaware River.

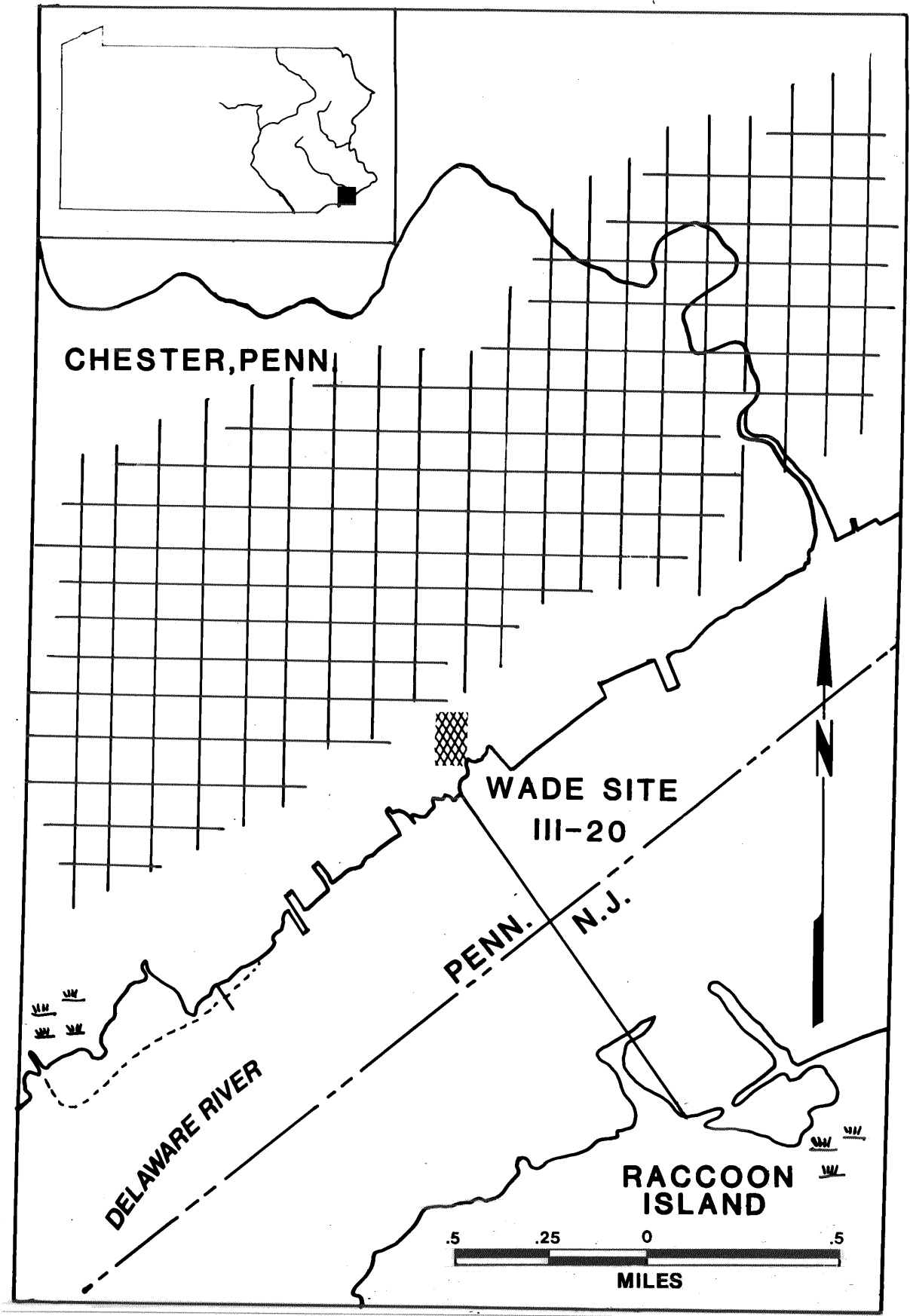


FIGURE 1. Site location.

Data in the Betz report indicates substantial levels of EPA priority pollutants (volatile organics to 9,900 mg/l; base/neutral extractable organics to 38 mg/l; pesticide extractables to 47 mg/l; metals to 6 mg/l) in pond water, surface water, and outfall samples taken at the site and adjacent to the Delaware River. The contribution of contaminants from the Wade site to the Delaware River appears to be well documented.

Marine Resources at Risk:

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

Table 1. Fishery Resources of the 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	x
American shad			x		x	x
Shortnose sturgeon						x
Atlantic sturgeon						x
Striped bass			x		x	x
Gizzard shad			x			
<u>Non-anadromous</u>						
Atlantic menhaden			x			
White perch			x		x	x
Flounder						
Bluefish			x			
Atlantic croaker			x			
Channel catfish	x					
White catfish					x	
Brown bullhead					x	
Bluegill	x				x	
Black crappie	x				x	

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 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 also 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 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 species are the Atlantic sturgeon, a species of special State concern, and the Shortnose sutrgeon, a species of special Federal concern.

Some species of fish may be harvested by recreational and commercial fishermen in the Delaware River adjacent to this site. In addition, tidal flats are present in the vicinity of Chester.

The Delaware Bay estuarine system is an important wintering area for many waterfowl and seabirds, particularly loons, grebes, and gannet. They tend to concentrate in coastal bays and wetland areas. Bald eagles nest at Augustine Wildlife Area and Appoquinimink Wildlife Area.

Tinicum National Environment Center is located on the Delaware River three miles upstream of the Wade Property.

Summary of Site-Related Actions:

EPA and the State of Pennsylvania have conducted a partial cleanup of this site. The State of Pennsylvania will be the lead agency for the remainder of the cleanup. The next phase will include inventorying, categorizing, and staging of waste remaining on-site. This work is scheduled to begin in the summer of 1983.

EPA has reached a settlement with 34 waste generators who have agreed to contribute \$1.9 million to the site cleanup. A current civil action against nine other responsible persons (other generators, transporters, and owner) seeks court-ordered cleanup and recovery of costs incurred.

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References

1. National Marine Fisheries Service, 1974. Anglers Guide to the United States Atlantic Coast.
2. U.S. Fish and Wildlife Service, 1980. Atlantic Coast Ecological Inventory.
3. Breder, C.M. and D.E. Rosen, 1966. Modes of Reproduction in Fishes. TFH Publications.
4. Byrne, D. Personal communication. Delaware River Anadromous Fishery Project, U.S. Fish and Wildlife Service.

References, cont.

5. Research Planning Institute. Environmental Sensitivity Atlas - Pennsylvania. Unpublished.
6. Betz, Converse, Murdock, Inc., 1980. "Phase 1 - Investigation of Contamination from a Hazardous Waste Disposal Site - Wade Property." Plymouth Meeting, Pennsylvania.