NOAA Hazardous Waste Site Report

PJP Landfill (II-43)
Hudson County, New Jersey
April 13, 1984

Location and Nature of Site:

The PJP site is a closed dump site on a 50-acre industrial tract of land between Routes 1 and 9 and the Hackensack River (Figure 1). The site is located under the Pulaski Skyway. One side of the dump's face is a bluff approximately ninety feet high, which faces the river. Releases of leachate and volatile organics into the river and atmosphere, respectively, have been observed. Groundwater and surface water leachate contamination have been confirmed by the New Jersey Department of Environmental Protection. Over a period of five years in the 1970's, a minimum of 100 55-gallon drums of toxic wastes were reported dumped on the site, along with refuse. Monitoring wells and soil analyses of site samples have confirmed that high levels of benzene, chorobenzene, lead, phenols, arsenic and other hazardous chemical wastes are present.

Observed releases of contaminated leachate from a drainage ditch on the site lead directly into the Hackensack River. This leachate is believed to be corroding the bridge supports of the Pulaski Skyway. Volatile organics, barium, and chromium were detected in all six monitoring wells on the site. Surface and subsurface fires periodically flare up at the site. The smoke from these fires has on occasion been so severe as to interfere with the traffic flow on the Pulaski Skyway.

Proximity of Chemical Hazard to Marine Resources:

This dump site borders the tidally-influenced Hackensack River. Chemical leachate from the site enters the river continuously. The site is within 2,500 feet of a coastal wetland which is used for recreation and boating activities.

Marine Resources at Risk:

The Hackensack River supports small runs of anadromous fish but is not a primary spawning or nursery area.

The Newark Bay area is very heavily developed and does not serve as a primary spawning or nursery habitat for anadromous fish. Some anadromous fish enter this area during spawning runs, and several species of fish are present all year as adults or larvae (2).

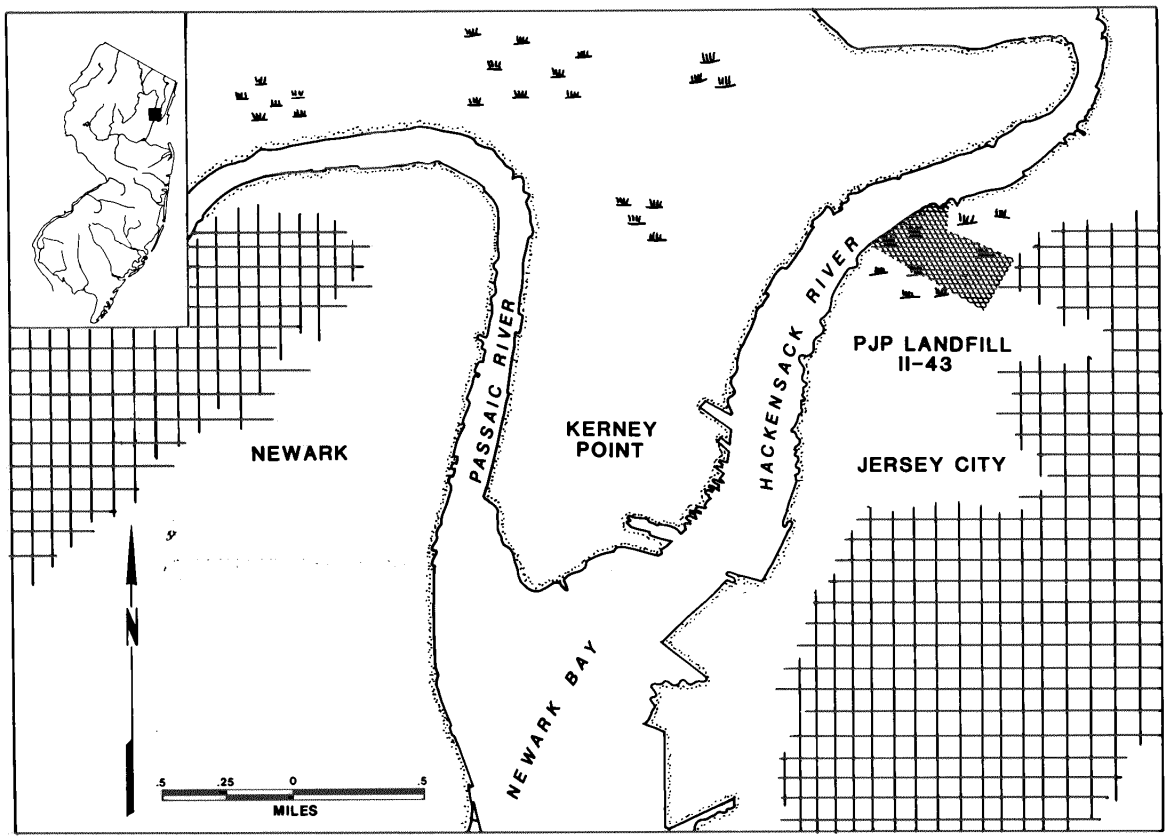

FIGURE 1. Site location.

Table 1. Fishery Resources of the Hackensack River and Newark Bay (1-4)

Finfish Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
Anadromous						
Alewife						x
Blueback herring						x
Tomcod			x			x
Striped bass			x			x
Non-anadromous						
White perch	x					
Flounder	x					
Bluefish	x		x			
Spot	x		x			
Northern kingfish	x					
Shellfish						
Blue crab	x		x		x	

There has been a long history of declining anadromous fish runs in New Jersey, dating back to the late 1800's. The Hackensack River has confirmed runs of herring, but shad spawning does not occur there now (6).

The southwest corner of Newark Bay is an overwintering area for waterfowl, and at Shooters Island there is a wading bird nesting colony. Lincoln Park, New Jersey is a city park immediately south and adjacent to this site.

Summary of Site-Related Actions:

By 1973, soil borings, monitoring well samples, and leachate stream analyses revealed toxic and volatile organic chemicals present at the site. The New Jersey Department of Environmental Protection (DEP) closed the site and filed a civil action against the two PJP owners for not closing the site by applying a proper covering. DEP enforcement actions are planned (as of August 1983) to secure the site, institute a monitoring program, and determine the extent of hazardous wastes present.

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References:

1. National Marine Fisheries Service, 1974. Anglers Guide to the United States 2. Atlantic Coast.

2. U.S. Fish and Wildlife Service, 1982. Assessment of Resources of Newark Bay.

References, cont.

3. U.S. Fish and Wildlife Service, 1980. Atlantic Coast Ecological Inventory.

4. Breder, C.M. and D.E. Rosen, 1966. Modes of Reproduction in Fishes. TFH Publications.

5. Research Planning Institute. Environmental Sensitivity Index - New Jersey. Unpublished.

6. Zich, H.E., 1977. The collection of existing informatin and field investigation of anadromous clupeid spawning in New Jersey. New Jersey Department of Environmental Protection Misc. Report No. 41.

7. U.S. Environmental Protection Agency, 1983. Site Descriptions Report. August 29, 1983.