

NOAA Hazardous Waste Site Report

Denzer and Schafer X-Ray (II-74)
Bayville, New Jersey
April 13, 1984

Location and Nature of Site:

The Denzer and Schafer X-Ray facility is involved in silver reclamation from x-ray film in Bayville, New Jersey within 1,000 feet of a coastal wetland (Figure 1). The U.S. Environmental Protection Agency has determined that caustic liquid wastewater is being discharged from the site into an underground septic tank which overflows to an open area behind the plant. This fluid, contaminated with phenols (most persistent), sodium hydroxide, muriatic acid (most reactive), toluene, and 1,1,1 dichloroethane, then percolates into the Cohansey Aquifer. In addition, there are 2,618 drums of other hazardous wastes stored on site, some of which are leaking. No containment or diversion structures had been installed as of June 1983.

Proximity of Chemical Hazard to Marine Resources:

The site is situated within 1,200 feet of Potters Creek, a tributary of Toms River, and with 1,000 feet of the coastal wetland area of Barnegat Bay. The site is about three stream miles from Barnegat Bay.

The site overlies the Cohansey Aquifer which supplies drinking water to nearby domestic and public supply wells. Chemical contamination of the Cohansey Aquifer has been documented, but sampling has not been conducted to determine if this is affecting adjoining Potters Creek, Toms River, or Barnegat Bay. The water table is 18-24 inches below the ground surface.

Marine Resources at Risk:

This site is only 1,200 feet from Potters Creek which leads to the coastal wetlands of Barnegat Bay, a recreation area for swimming and fishing. The site is within one mile of the cafra zone and the Atlantic coastal basin. Barnegat Bay and its estuaries provide significant habitats for a variety of finfish and shellfish resources (see Table 1).

Anadromous fish migrate through the Barnegat Bay estuarine system during the early spring on their way to freshwater spawning grounds. The adults return to the more saline estuarine and marine areas. Juvenile fish, hatched in the spring, remain in the freshwater areas of the rivers until the late summer and early fall, when they also migrate back into the estuaries and ocean.

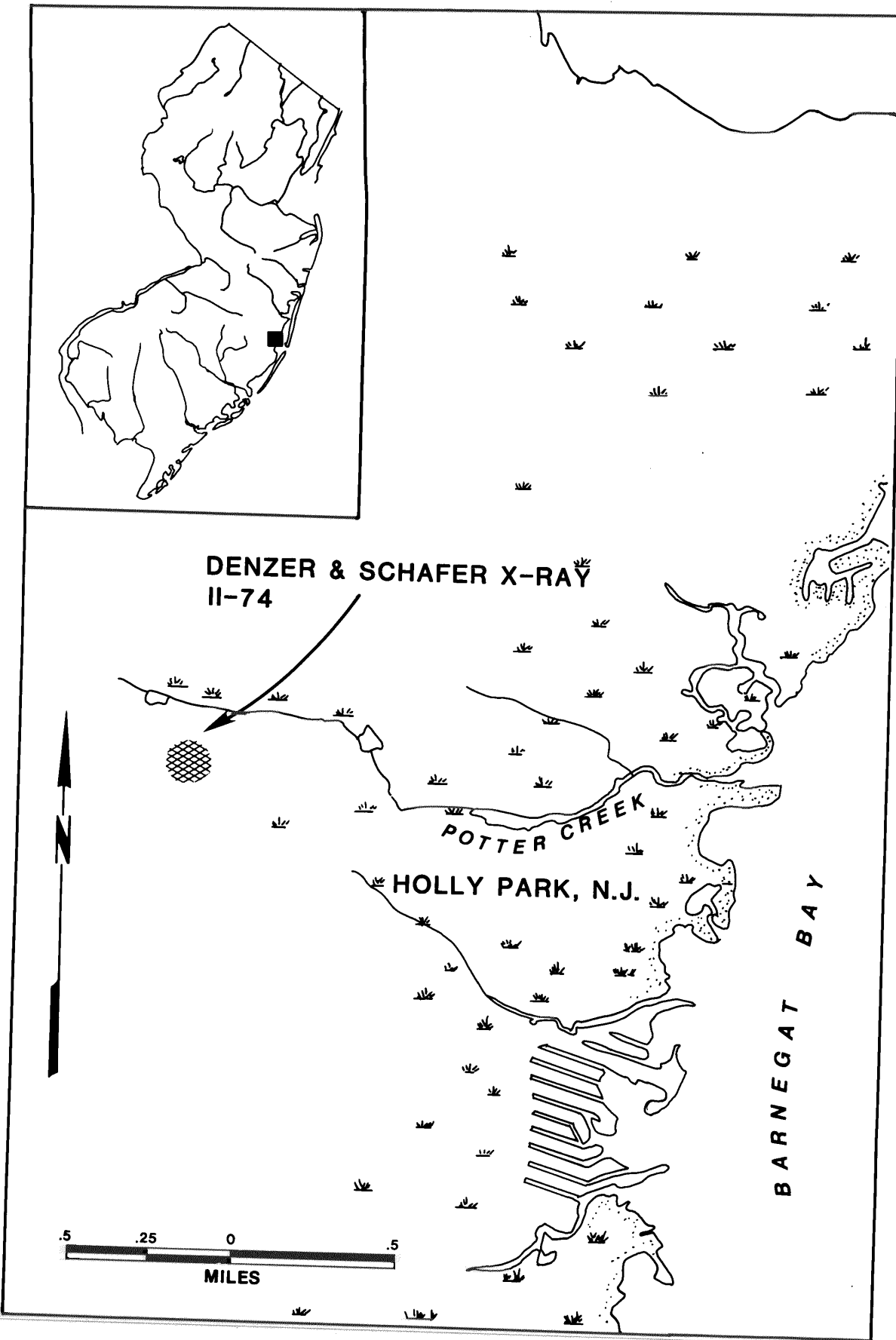


FIGURE 1. Site location.

Table 1. Fishery Resources of Barnegat Bay (1, 2, 4)

Finfish Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
<u>Anadromous</u>						
Alewife	x					x
Blueback herring	x					x
Shortnose sturgeon						x
Atlantic sturgeon						x
Striped bass	x			x	x	x
Gizzard shad	x					x
<u>Non-anadromous</u>						
Atlantic menhaden	x			x		
White perch	x			x	x	
Flounder	x		x	x	x	
Bluefish	x			x	x	
Atlantic croaker	x		x			
Spotted seatrout	x	x			x	
Black drum		x			x	
Silver perch		x	x		x	
Bay anchovy	x	x				
Hake	x			x	x	
Spot	x				x	
<u>Shellfish</u>						
Blue crab	x	x	x	x	x	
Hard clam	x	x	x	x	x	
Eastern oyster	x	x	x	x	x	

The Barnegat Bay area is an important recreational and commercial fishery area for many finfish and shellfish species, and is a nursery area for shellfish and non-anadromous finfish.

This area is also an important wintering area for many migratory waterfowl. There are two osprey nesting sites within three miles of this site. This site is located ten miles north of Forked River Game Farm and twelve miles from Island Beach State Park.

Summary of Site-Related Actions:

In 1977, the New Jersey Department of Environmental Protection issued an administrative order against Denzer & Schafer to cease the discharge of improperly-treated wastewater and to implement a permanent treatment method. By 1981, the State had begun prosecution proceedings against the owners for non-compliance. A second request was made for a sound waste treatment and disposal proposal and a groundwater monitoring procedure was ordered.

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References:

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2. U.S. Fish and Wildlife Service, 1980. Atlantic Coast Ecological Inventory.
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4. Research Planning Institute. Environmental Sensitivity Index - New Jersey. Unpublished.
5. Zich, H.E., 1977. The collection of existing information and field investigation of anadromous clupeid spawning in New Jersey. New Jersey Department of Environmental Protection Misc. Report No. 41.
6. U.S. Environmental Protection Agency. Hazardous Waste Site Ranking Sheet Report. Region II.
7. New Jersey Department of Environmental Protection, 1983. Site Descriptions: Hazardous Waste Sites in New Jersey's Management Plan for Remedial Action. August 1983.