NOAA Hazardous Waste Site Report

Jackson Township Landfill (II-77)
Jackson Township, Ocean County, New Jersey
April 13, 1984

Location and Nature of Site:

The Jackson Township Landfill site is a former ilmenite mining pit acquired by Jackson Township in 1972 for use as a municipal landfill to accept sewage sludge and septic tank wastes (Figure 1). Over four million gallons of liquid wastes were disposed of at the site until 1979. The site is on a marshland overlying the Cohansey Aquifer which flows into the Maple Root and Ridgeway branches of the Toms River.

In 1978, allegations of chemical dumping and associated health problems by nearby residents were confirmed following laboratory analyses of private wells surrounding the landfill ("Legler" area). These results showed, in part: benzene (50-300 ppb), chloroform (75 ppb), methylene chloride (410-3,000 ppb), and 1,1,1 trichloroethylene (350-1,360 ppb).

Over 100 drinking wells were closed because of this contamination. Homes are as close as 200 ft. from the site. Premature deaths, kidney malfunctions and removals, recurrent rashes, infections, and other health-related problems due to the contamination of drinking water have been documented. A New Jersey Department of Health study which documented these human health problems concluded that the "health consequences of consuming this water are an increased risk of some long-term diseases such as cancer." (6)

In 1980, the State of New Jersey closed the landfill. Funds were appropriated to provide healthful water to affected homes. A fifty million dollar suit has been filed by families in the Legler area against Jackson Township to clean up the site and to set up a court-administered medical trust fund for present and future medical damages caused by the site.

Proximity of Chemical Hazard to Marine Resources:

The semi-rural area of the site is on marshland overlying the Upper Cohansey Formation Aquifer. There are two cranberry bogs in the vicinity of the site. A contaminant plume emanating from the site extends 1.5 miles in all directions.

The site is intercepted 2,000 ft. on the south by the Ridgeway branch of the Toms River, on the north by the Maple Root branch, and is 1,200 ft. from the Long branch of the Toms River. A State of New Jersey wildlife and game refuge borders the Legler area and Long Branch tributary.

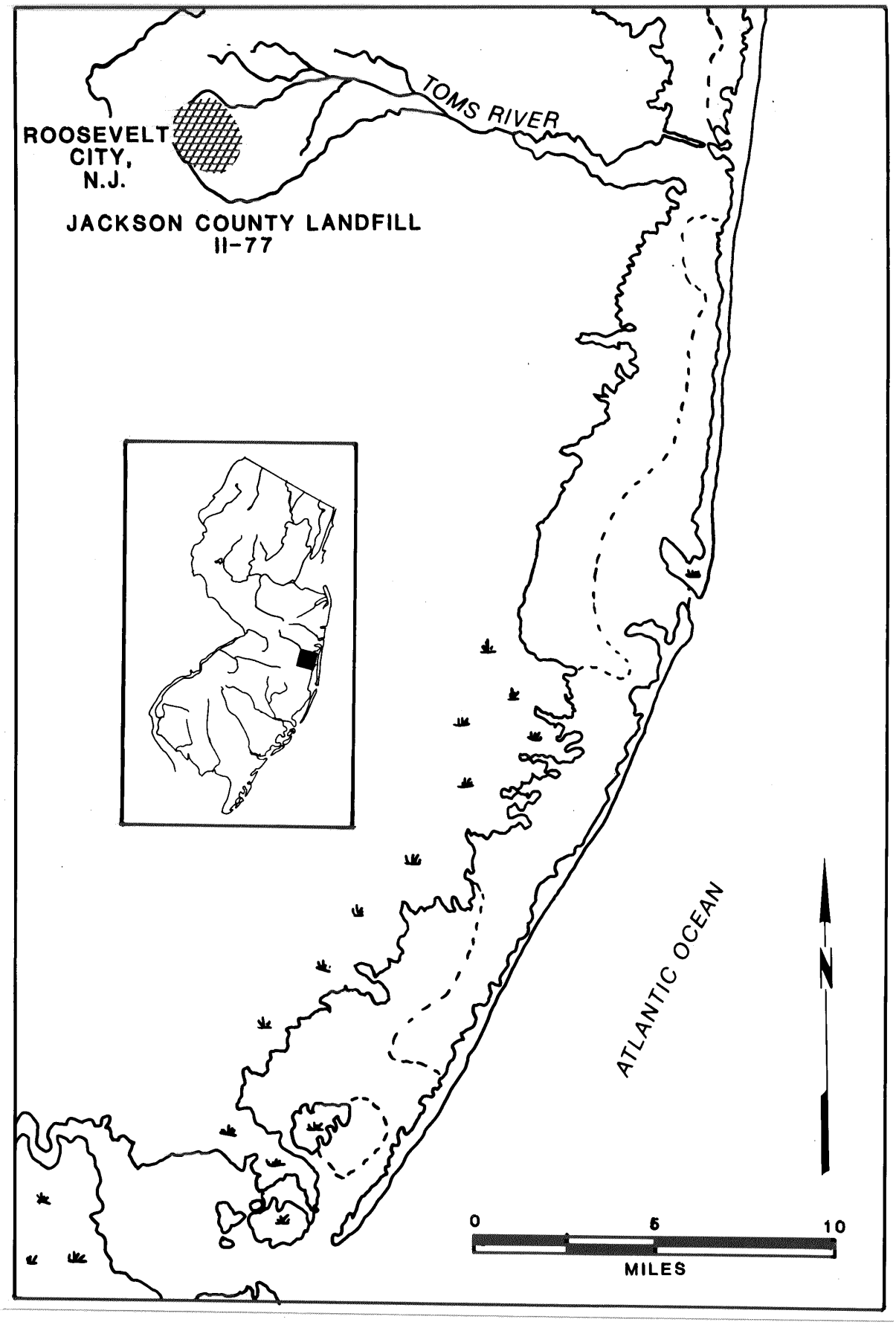

FIGURE 1. Site location.

Marine Resources at Risk:

This site is located near two tributaries of Toms River which, together with Barnegat Bay and its estuaries, provide a significant habitat for a variety of finfish and shellfish resources (See Table 1).

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

Finfish Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
Anadromous						
Alewife	x		x			x
Blueback herring	x		x			x
Shortnose sturgeon			x			x
Atlantic sturgeon			x			x
Striped bass	x		x	x	x	x
Gizzard shad	x	x	x			
Non-anadromous						
Atlantic menhaden	x			x		
White perch	x			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	
Silverrh						
Bay anchovy	x	x				
Hake	x			x	x	
Spot	x				x	
Shellfish						
Blue crab	x	x	x	x	x	
Hard clam	x	x	x	x	x	
Eastern oyster	x	x	x	x	x	

Anadromous fish migrate through the Barnegat Bay estuarine system during the early spring on their way to freshwater spawning grounds. The adults spawn in freshwater areas of the Toms River, and then return to the lower parts of Barnegat Bay and other estuarine and marine areas. Juvenile fish, hatched in the spring, remain in the upper parts of Toms River until the late summer and early fall when they also migrate back into the lower parts of the Bay.

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. The Atlantic sturgeon is a species of special concern to the State of Delaware.

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:

Over 30 monitoring wells have been installed on-site. Sampling of these wells in 1981-1982 found no significant organic contaminants beneath the fill.

Remedial actions have included installation of a clay and asphalt cap, the installation of methane gas vents and a leachate regurgitation system to insure groundwater recovery and treatment to prevent further contamination of the area. An air investigation of a nearby residential area for known contaminants was conducted.

A closure plan was submitted to the New Jersey Department of Environmental Protection under a New Jersey Superior Court order in 1982 to do a comprehensive cleanup of the site and groundwater. This plan was to be implemented starting in 1983.

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