

NOAA Hazardous Waste Site Report

Munisport Landfill (IV-10)

North Miami, Florida.

April 13, 1984

Location and Nature of Site:

The Munisport site is a 291-acre, inactive municipal landfill owned by the city of North Miami, Florida (Figure 1). Munisport owners first began filling low lying areas with clean fill and construction debris in anticipation of constructing a recreational facility on the site. By 1974, it was accepting municipal refuse. The site now has rolling topography due entirely to the fill. There has been only one reported incident of hazardous materials on site, and these materials have since been removed. The landfill has been closed since March, 1981.

Eight lakes were excavated on the property to a depth of approximately 35 feet. The lakes have no inlets or outlets, and levels fluctuate with precipitation and groundwater levels. The Biscayne aquifer is found here extending from the surface to a depth of 150 feet. The aquifer is composed of sands, limestones, and shelly material. Surface waters and groundwater are closely related. The mangrove preserve is connected to Biscayne Bay by two 60-inch culverts to maintain tidal flushing of the swamp.

This landfill consists mostly of solid wastes, but twelve drums containing liquid chemicals were observed on the site in the past. The drums, supposedly containing tricreysl phosphate and ethyl cyanoacetate, were seen draining onto the ground. Infectious hospital wastes, contained in bright red bags, have also been seen on the site. It is unknown whether operators of Munisport accepted other drummed chemicals. It is considered an impossible task to conclusively prove whether additional drummed wastes are on the site. Leachate was sampled on one occasion and lead, chlorobenzene, and ethylbenzene were noted in the analysis.

Proximity of Chemical Hazard to Marine Resources:

The site is significant due to its proximity to Biscayne Bay. The bay lies approximately 2000 feet southeast of the site. A finger canal is about 1000 feet south of the site. The site is separated from Biscayne Bay on the southeast by a mangrove swamp. An area cut by numerous drainage ditches and canals connects the site to the Oleta River to the north. The Oleta River is a shallow, winding, natural drainage, bordered by sheltered mangroves. It enters the Inter-Coastal Waterway two miles north of Bakers Haulover cut, the northern connection of Biscayne Bay. Maule Lake is connected to the Oleta River to the

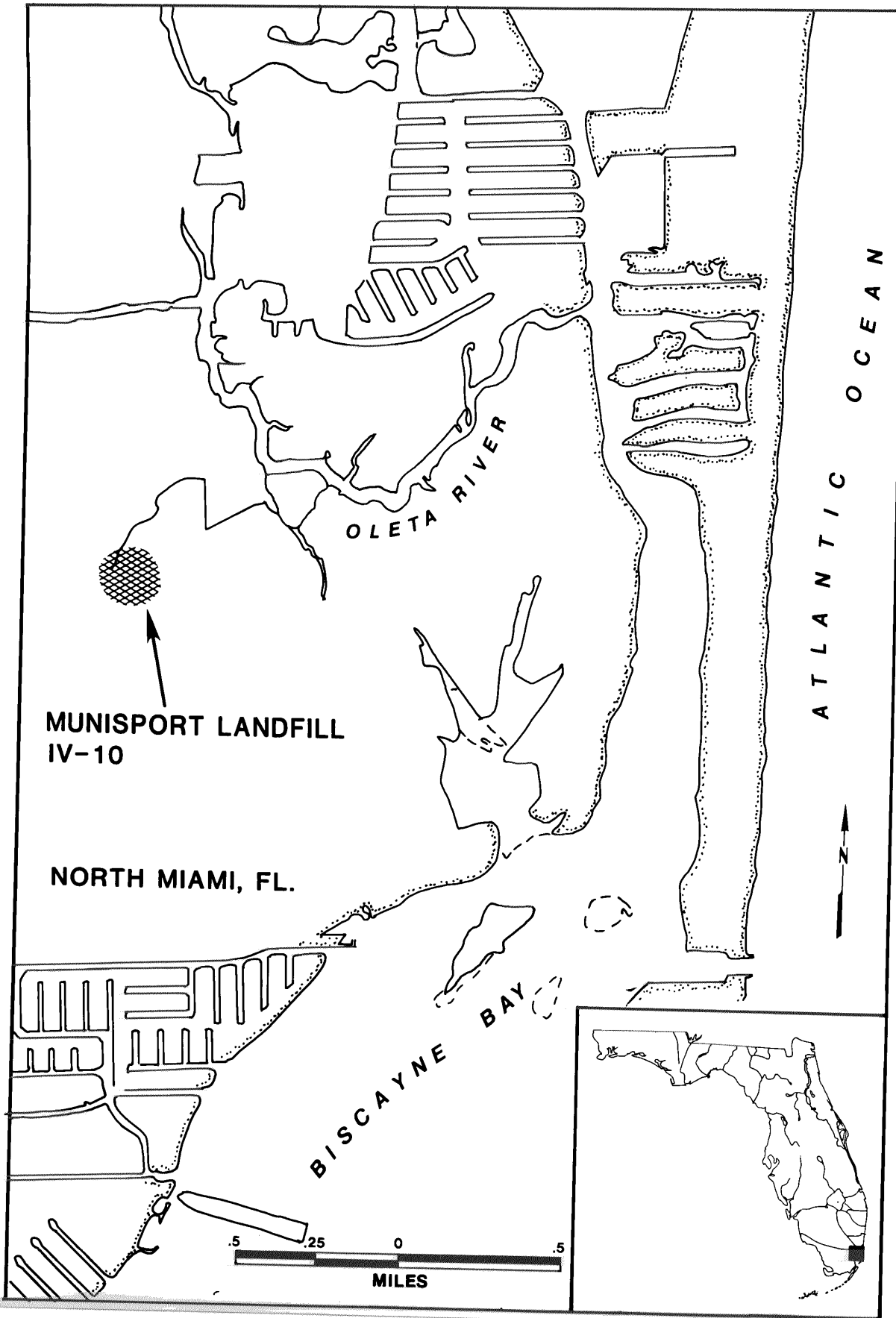


FIGURE 1. Site location.

North. This area is surrounded by dense residential developments, seawalls and marinas.

Samples of groundwater on-site show lead levels in the groundwater have exceeded the EPA primary drinking water standard of 0.05 mg/l. The highest average lead concentration observed in wells was 0.147 mg/l. Lead concentrations in nearly all surface water samples were less than 0.01 mg/l. A leachate sample contained a lead concentration of 0.13 mg/l. Ammonia concentrations in surface waters range from 43.1 mg/l in East Lake to a low of 0.045 mg/l in the culverts.

Leachate is present on the site in surface impoundments, however, none has been observed entering coastal waters. There is a possibility of a release occurring during very heavy rains or floods but only on an infrequent basis. An increase in ammonia concentrations in Biscayne Bay has been noted near the site, but it is not currently thought to be site-related.

Resources at Risk:

This site is located in a heavily developed area near Biscayne Bay. The Biscayne Bay is a nursery area for many species of marine organisms and is a federally designated critical habitat for the Florida manatee. Manatees frequent Biscayne Bay and may enter the Oleta River.

The Biscayne Bay and Oleta River region is an important recreational area for southeast Florida. Seagrass beds, patch coral reefs, and mangrove forests are abundant in many areas. No anadromous fish spawn in this area, but many other marine organisms can be found here year round as adults or larvae (Table 1).

Table 1. Fishery resources of Biscayne Bay (1,2,3,).

Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
<u>Non-anadromous</u>						
Seatrout	X	X	X	X	X	
Spot	X		X		X	
Croaker	X		X	X	X	
Whiting	X		X		X	
Flounder	X		X		X	
Pompano	X			X	X	
Bluefish	X		X		X	X
White grunt	X		X	X	X	
Mullet	X	X	X	X	X	X
<u>Shellfish</u>						
Blue crab	X	X	X	X	X	
White shrimp			X			
Brown shrimp			X			
Spiny lobster	X			X	X	

Many wading birds, shorebirds, and seabirds can be found here all year, as can bottlenose dolphin and manatee.

Summary of Site Related Actions:

The Environmental Protection Agency has taken site samples for analysis with results to be available in August. Groundwater monitoring wells have been installed around the site and additional testing is planned.

The Environmental Protection Agency expects the site to be removed from the National Priority List if results of these samples show insignificant amounts of volatile organics and heavy metals.

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References:

1. National Marine Fisheries Service. Anglers Guide to the United States Atlantic Coast,
2. U.S. Fish and Wildlife Service. Atlantic Coast Ecological Inventory, 1980.
3. Research Planning Institute. Environmental Sensitivity Index - South Florida.