

## NOAA Hazardous Waste Site Report

Joy Reclamation Co. (III-12)  
Glen Burnie, Maryland  
April 13, 1984

### Location and Nature of the Site:

The Joy Reclamation site is a scrapyards located near Route 10 in Glen Burnie, Maryland (Figure 1). The area is heavily industrialized, located just southwest of Baltimore. State of Maryland inspectors discovered the yard in 1980 and found it to contain scrap metal, construction rubble, about 100 drums of paint sludge, and a 1000 cubic foot pile of slag containing high levels of hexo-valent-chromium, a carcinogen known to be harmful to aquatic life. The slag, a waste material from the stainless steel processing plant of the ARMCO company, was removed and the site cleaned up in 1982.

### Proximity of Chemical Hazard to Marine Resources:

The slag pile containing the hexo-valent-chromium was adjacent to a drainage ditch which emptied into a stream which drained into Curtis Creek, approximately one mile from the site. State inspectors estimate that input from the drainage ditch to the creek would be intermittent, occurring only during periods of heavy rains.

Samples taken from the pile showed chromium levels in the 1000 ppm range. A surface water sample taken in the adjacent drainage ditch contained less than 100 ppm of chromium.

Sediment samples in Curtis Creek show high background levels of chromium and sulfides, among other contaminants. The contribution from Joy Reclamation site, which ceased with the 1982 cleanup, was minor given the distance from the creek and the intermittent input.

### Marine Resources at Risk:

Resident species diversity in Curtis Creek and the Patapsco River is reduced to those which tolerate pollution. Although adult fish are present, it is believed that they move in and out of the creek and that the area is no longer used as a nursery area (6). There is no significant recreational or commercial fishing in Curtis Creek. Fishery resources of the Patapsco River are summarized in Table 1.

Anadromous fish migrate through the Chesapeake Bay estuarine system during the early spring on their way to freshwater spawning grounds. This occurs in the upper reaches of the major freshwater tributaries (4). The adults return to the lower parts of Chesapeake Bay. Juvenile

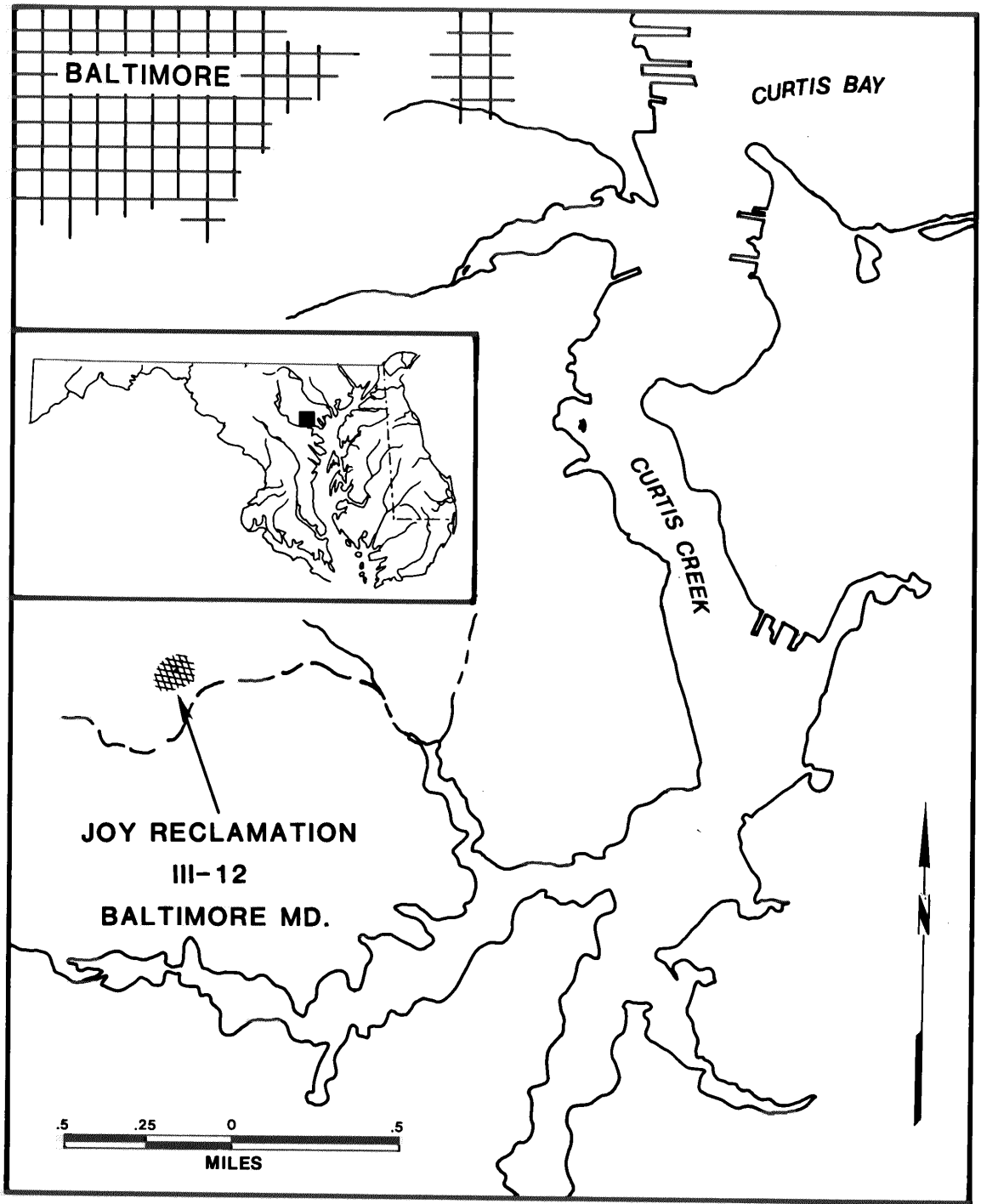


FIGURE 1. Site location.

fish, hatched in the spring, remain in the upper parts of Chesapeake Bay until late summer or early fall, when they also migrate into the lower parts of the Bay (3). The Atlantic sturgeon is a species of special concern to the State of Maryland.

The Sandy Point State Park is located about twelve miles to the southeast of this site.

Table 1. Fishery Resources of the Patapsco River (1,2,5)

Finfish Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
<u>Anadromous</u>						
Alewife	X		X	X		X
Blueback herring	X		X	X		X
American shad	X		X	X		X
Atlantic sturgeon						X
Gizzard shad	X		X	X		X
Striped bass	X		X	X		X
<u>Non-anadromous</u>						
Weakfish	X		X	X		
Spot	X		X	X		
Bluefish	X		X	X		
White perch	X		X	X		X
Flounder	X					

Summary of Site-Related Actions:

The EPA conducted a site inspection in 1982 at the time of its discovery. The site was cleaned up under Superfund in 1981.

NOAA Reviewer: Ann Hayward Rooney, SSC - Mid-Atlantic  
(804)428-3636

EPA Contacts: Neil Swanson, Site Investigation Section  
(215)597-3497

Other Contacts: State of Maryland - Frank Henderson, Jim Lizear  
(301)383-6650

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, 1980.
3. Breder, C.M., and D.E. Rosen, 1966. Modes of Reproduction in Fishes. TFH Publications.

References, cont.

4. Byrne, D. Personal Communication. Delaware River Anadromous Fishery Project. U.S. Fish and Wildlife Service.
5. Virginia Institute of Marine Science. Environmental Sensitivity Atlas - Maryland.
6. Foster, John. Personal communication. Tidewater Administration, Department of National Resources, State of Maryland.