

**Action Anodizing
Copiague, New York
Region 2
NYD072366453**

Site Exposure Potential

The Action Anodizing site is in Copiague, New York (Figure 1). Action Anodizing, Plating, and Polishing Corporation uses the site as a small anodizing facility, with some cadmium plating occurring on-site. Wastewater containing high concentrations of trace metals was discharged to leaching pools until 1982. Wastewater in the ponds was allowed to infiltrate into the ground (EPA 1987).

Amityville Creek, 550 meters west and downgradient from the site, is the nearest surface water body. Woods Creek is 825 meters south of the site. Both creeks empty into the Great South Bay, 3 km south of the site. Contaminants in surface soil at the site could possibly reach Amityville Creek through surface water runoff.

Depth to groundwater at the site is four meters and the distance between the bottom of the liquid waste in the leaching ponds and the top of the water table is less than 1.5 meters (EPA 1987).

Possible contaminant migration pathways to NOAA trust resources are surface water runoff and infiltration of contaminants from leaching ponds to groundwater, then transport by groundwater flow to Amityville Creek, Woods Creek, and South Oyster Bay.

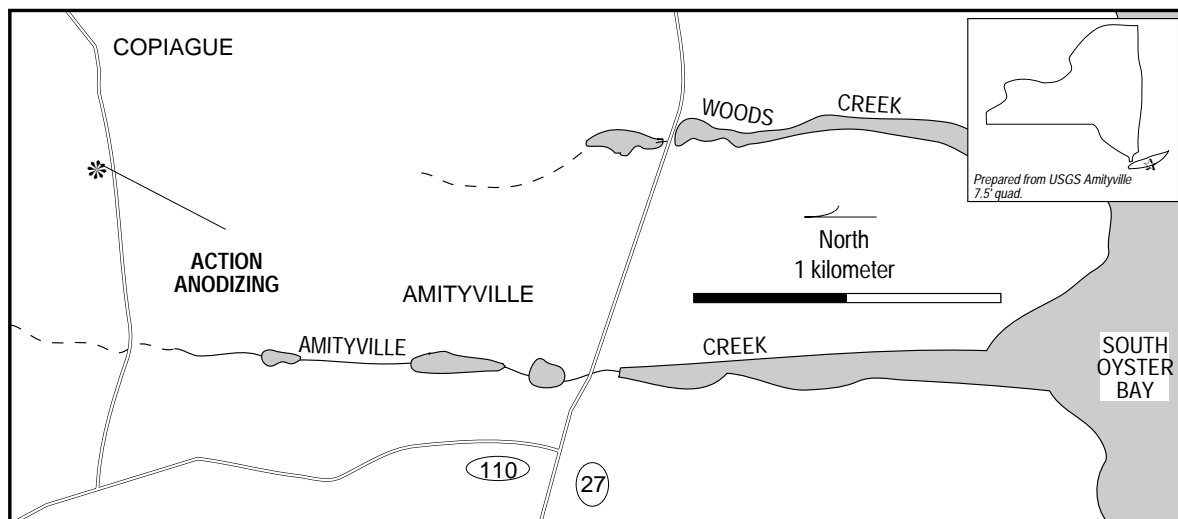


Figure 1. The Action Anodizing site in Copiague, New York.

Site-Related Contamination

Trace metals are the contaminants of concern to NOAA at this site. Water samples were collected from the leaching ponds in January 1980 while the ponds were still in use. These samples contained concentrations of trace metals up to six orders of magnitude higher than the AWQC for the protection of saltwater aquatic life (Table 1). A soil sample taken from an area of stained soil on the west side of the building on-site contained 680 mg/kg chromium and 640 mg/kg cadmium (EPA 1987). There is insufficient information to determine whether there has been any significant contamination of the groundwater or local surface waters of interest to NOAA.

Table 1. Maximum concentrations of selected contaminants (HRS 1987) observed in surface water at the Action Anodizing site; AWQC for the protection of saltwater aquatic life (EPA 1986); concentrations in µg/l.

Contaminant	Leaching Ponds	AWQC	
		Acute	Chronic
cadmium	2,200,000	43	9.3
chromium	790,000	1100	50
copper	50,000	2.9	2.9
lead	50,000	140	5.6
nickel	180,000	75	8.3
silver	640	2.3	N/D
zinc	78,000	95	86
N/D: Not determined			

NOAA Trust Habitats and Species in Site Vicinity

Habitats of interest to NOAA include the lower reaches of Amityville and Woods creeks and South Oyster Bay (Table 2). The lower reaches of Amityville and Woods creeks are tidally influenced estuarine habitats. Some estuarine species, such as white perch and American eel, frequent these portions of the streams, but there is insufficient information to determine how much the streams are used by species in South Oyster Bay (Guthrie 1989).

Table 2. Selected NOAA trust resource use of the South Oyster Bay (USFWS 1980).

Species	Spawning Area	Nursery Area	Migration Route	Adult Area	Commercial Fisheries	Recreational Fisheries
INVERTEBRATES						
bay scallop		X		X		X
blue crab	X	X		X	X	X
eastern oyster	X	X		X	X	X
FISH						
alewife			X			
American shad			X			
Atlantic cod						X
Atlantic croaker				X		
Atlantic eel			X	X	X	X
Atlantic menhaden		X		X	X	
Atlantic sturgeon			X			
blueback herring			X			
bluefish				X	X	X
summer flounder		X		X	X	X
winter flounder		X		X	X	X
striped bass			X	X	X	X
scup				x	x	x
white perch			X		X	X
spot				X		
weakfish	X	X		X	X	X
tautog				X		X

South Oyster Bay provides productive estuarine and shallow, marine shelf habitats harboring many marine species (USFWS 1980). American shad migrate through the Great South Bay and are important regionally since they listed as a threatened species by the State of New Jersey.

Response Category: Undetermined

Current Stage of Site Action: RI/FS Workplan

EPA Site Manager

Dorothy Allen 212-264-2647

NOAA Coastal Resource Coordinator

John Lindsay 404-347-5231

References

Guthrie, C., aquatic biologist, New York Department of Environmental Conservation Bureau of Fisheries, New York City, personal communication, January 12, 1989.

EPA. 1986. Quality Criteria for Water. Washington, D.C.: Office of Water Regulations and Standards, Criteria and Standards Division. EPA 440/5-86-001.

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