

NOAA Hazardous Waste Site Report

Gould, Inc. (X-1)
Portland, Oregon
April 13, 1984

Location and Nature of the Site:

Gould, Inc. occupies a ten-acre site that has been used for battery recycling since about 1949. The site is in an industrialized area of northwest Portland, bordering the Willamette River and Doane Lake (Figure 1). As a result of operations at the facility, battery cases, sulfuric acid, lead and zinc dross were disposed of on site, however, the exact location and content of the materials are unknown. Over the years about two-thirds of Doane Lake has been filled with material from Gould and other surrounding industries.

Since acquiring the site in 1979 Gould has gradually phased out the battery recycling operation. A large exposed pile of battery casings still remains on site.

Proximity of Chemical Hazard to Marine Resources:

The primary environmental concern at the site is air-borne lead. Soil, surface water, and groundwater have shown lead, zinc, and phenol contamination. Monitoring wells at the nearby Rhone-Poulenc herbicide manufacturing plant show additional contamination of groundwater by arsenic (4,700 ppb), beryllium (200 ppb), chromium (540 ppb), and nickel (5,500 ppb)(3).

Surface runoff from the site drains towards the northwest into what remains of Doane Lake. A storm drain carries overflow from the lake directly into the Willamette River. The shallow aquifer is interconnected with, and probably flows towards, the river. Contamination from Gould, Rhone-Poulenc and in all likelihood, other industrial sites in the area, could reach the Willamette.

Marine Resources at Risk:

The Willamette River is a commercial and recreational fishery area, and a migratory route and nursery area for salmon (Table 1). The area around Multnomah Channel, located about five miles downstream from this site, is fished heavily by commercial and recreational fishermen. The wetlands near the Willamette River are an important waterfowl wintering area.

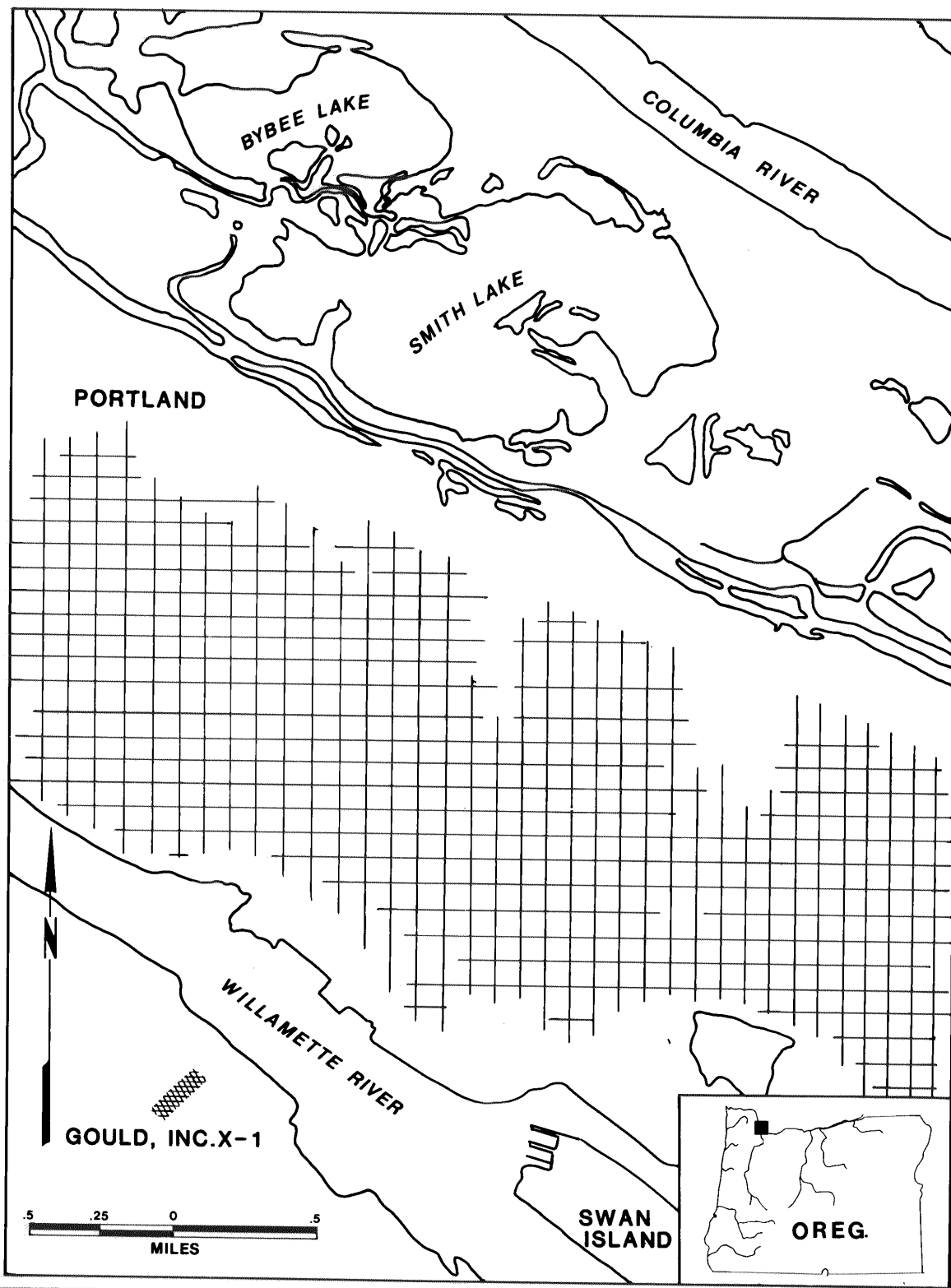


FIGURE 1. Site location.

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

Finfish Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
<u>Anadromous</u>						
Chinook salmon		x	x		x	x
Coho salmon		x	x		x	x
Steelhead trout		x	x		x	x
American shad		x	x		x	x
Sturgeon	x	x	x		x	
Sockeye salmon		x	x		x	x
Chum salmon		x	x		x	x
<u>Non-anadromous</u>						
Yellow perch	x	x	x		x	
Rainbow trout	x		x		x	
Cutthroat trout	x		x		x	
Carp	x	x	x	x	x	

Summary of Site-Related Actions:

The Oregon Department of Environmental Quality has been working with the U.S. Environmental Protection Agency and Gould to develop mitigation measures for on-site pollution problems. Atmospheric and groundwater contamination have been the focus of these efforts. EPA, Gould, and the State of Oregon all have maintained air stations and wells in the area to monitor contamination levels.

Gould's progress on development of a cleanup plan has been slow. The state has sited the facility numerous times over the past ten years for violation of environmental regulations. A Remedial Action Master Plan has been completed for the site which will guide future actions.

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References

1. Pruter, A. and D. Alverson (eds.), 1972. The Columbia River Estuary and Adjacent Ocean Waters - Bioenvironmental Studies. University of Washington Press.
2. Southerland, G., 1979. Oil Spill Protection Plan for the Natural Resources of the Lower Columbia and Willamette Rivers. Oregon Department of Land Conservation Development.
3. U.S. Environmental Protection Agency, 1984. Remedial Action Master Plan.