

**Saco Municipal Landfill  
Saco, Maine  
Region 1  
MED980504393**

**Site Exposure Potential**

The Saco Municipal Landfill site covers four hectares 3 km northwest of Saco, Maine (Figure 1) (NUS 1987). The landfill is owned by the city of Saco and was first used for open dumping around 1960. Wastes were burned on-site until local opposition halted burning activities. The landfill consists of an active industrial dump, an active municipal refuse dump, and a capped, inactive dump that appears as a broad, flat meadow. The industrial dump contains industrial waste and construction and demolition debris. The municipal waste area receives municipal refuse and four to five metric tons of de-watered, chromium-laden, tannery sludge daily. The tannery sludge is deposited in unlined trenches, often directly in contact with groundwater. In addition, illegal dumping of hazardous waste has allegedly occurred at the site. There are large, open pits south of the active dump that presumably have been mined for fill because they show no signs of dumping. The Saco Municipal Landfill is near capacity and the city of Saco has been required to complete a closure plan.

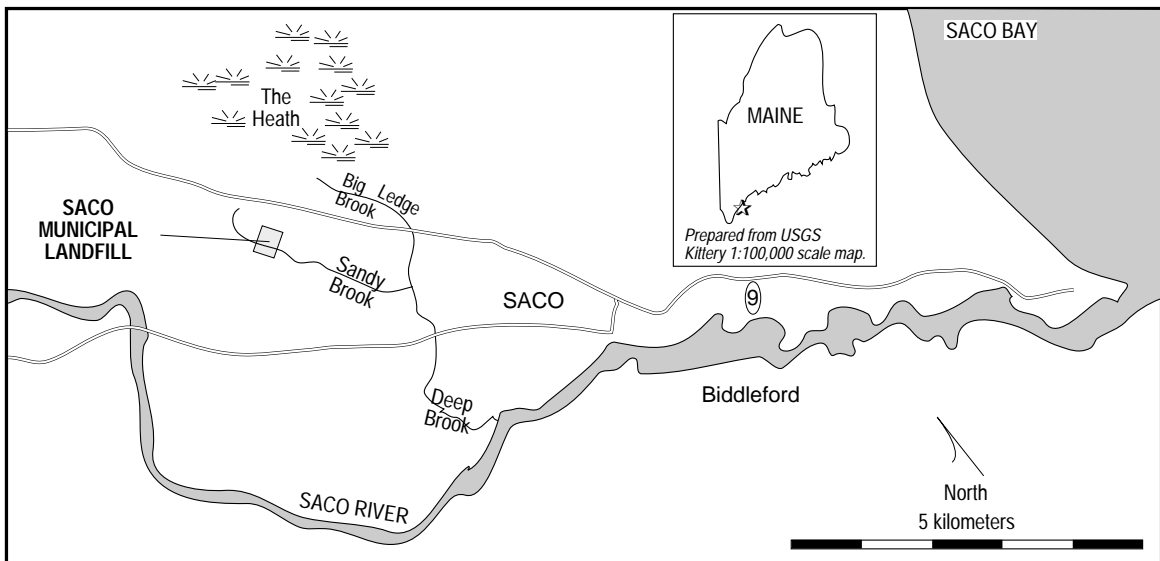


Figure 1. The Saco Municipal Landfill in Saco, Maine.

An extensive wetland area, The Heath, is 2 km northeast of the site. Sandy Brook originates in the wetland and flows through the site, separating the municipal refuse area from the industrial and inactive dump areas, draining 90 percent of the site. The remaining 10 percent of the site drains to an unnamed tributary of Deep Brook. Sandy Brook joins Big Ledge Brook 0.7 km below the site to form Deep Brook. Deep Brook flows 2 km to the Saco River, which flows 10 km further to the Atlantic Ocean.

Possible contaminant migration pathways to NOAA trust resources include leachate, surface water runoff, and groundwater flow to Sandy and Deep brooks.

## Site-Related Contamination

Trace metals are the contaminants of concern to NOAA. Both arsenic and mercury in leachate, and chromium in groundwater, were measured in concentrations exceeding AWQC for the protection of freshwater aquatic life (Table 1) (EPA 1986; NUS 1987). Moderate levels of several organic compounds have also been measured in on-site groundwater, the spring, and leachate.

Table 1. Maximum concentrations of selected contaminants at the Saco Municipal Landfill (NUS 1987); AWQC for the protection of freshwater aquatic life (EPA 1986); concentrations in µg/l.

Contaminant	On-site Groundwater	On-site Leachate	On-site Spring	Upstream	Sandy Brook Adjacent	Down-stream	AWQC	
Chronic							Acute	
<u>Semi-Volatiles</u>								
p-cresol	590	N/A	280	N/A	N/A	N/A	N/D	N/D
m-cresol	100	N/A	28	N/A	N/A	N/A	N/D	N/D
o-cresol	84	N/A	N/A	N/A	N/A	N/A	N/D	N/D
<u>Trace Metals</u>								
arsenic	N/A	300	N/A	N/A	N/A	13	360	190
chromium	200	N/A	0.008	<0.02	<0.02	N/A	16	11
mercury	N/A	0.2	N/A	N/A	N/A	N/A	2.4	0.012
N/A: Not available      N/D: Criteria not determined								

## NOAA Trust Habitats and Species in Site Vicinity

No information was available on the aquatic habitats of the unnamed tributary and Sandy Brook. However, Deep Brook is a small, continuously flowing, low-gradient stream with a width ranging from 0.6 to 6 meters and an average depth of 0.3 meters (Pearce 1988). The substrate in the brook is sand. The water quality in Deep Brook is fair; siltation and low dissolved oxygen values have been reported from the brook. Sandy Brook and Deep Brook are classified B-1 by the Maine Department of Environmental Protection (suitable habitat for propagation of fish and wildlife).

American eel is the only NOAA trust resource using the watershed near the site. There are several dams on the Saco River and restoration of anadromous fish runs has been proposed for the river. Atlantic salmon, American shad, and alewife are expected to use the Saco River near the site when the restoration is completed. Restoration of the lower reaches of the river near the mouth of Deep Brook should be completed by the early 1990s (Pearce 1988).

**Response Category:** Not Determined

**Current Stage of Site Action:** RI/FS Workplan

### EPA Site Manager

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**References**

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

NUS Corporation. 1987. Hazard Ranking System Package, Saco Municipal Landfill, Saco, Maine. Boston: U.S. Environmental Protection Agency. TDD No. F1-8702-21.

Pearce, S., fishery biologist, Maine Department of Fish and Wildlife Services, Fishery Division, Gray, Maine, personal communication, December 12, 1988.