Superfund Records Center
SITE: Saco Municipal
BREAK: 13.4
OTHER: 469143
SDMS DocID 469143

WELCOME

TO THE

SACO MUNICIPAL LANDFILL

PUBLIC HEARING

AUGUST 21, 1996

7:00 P.M.

SACO MIDDLE SCHOOL LIBRARY

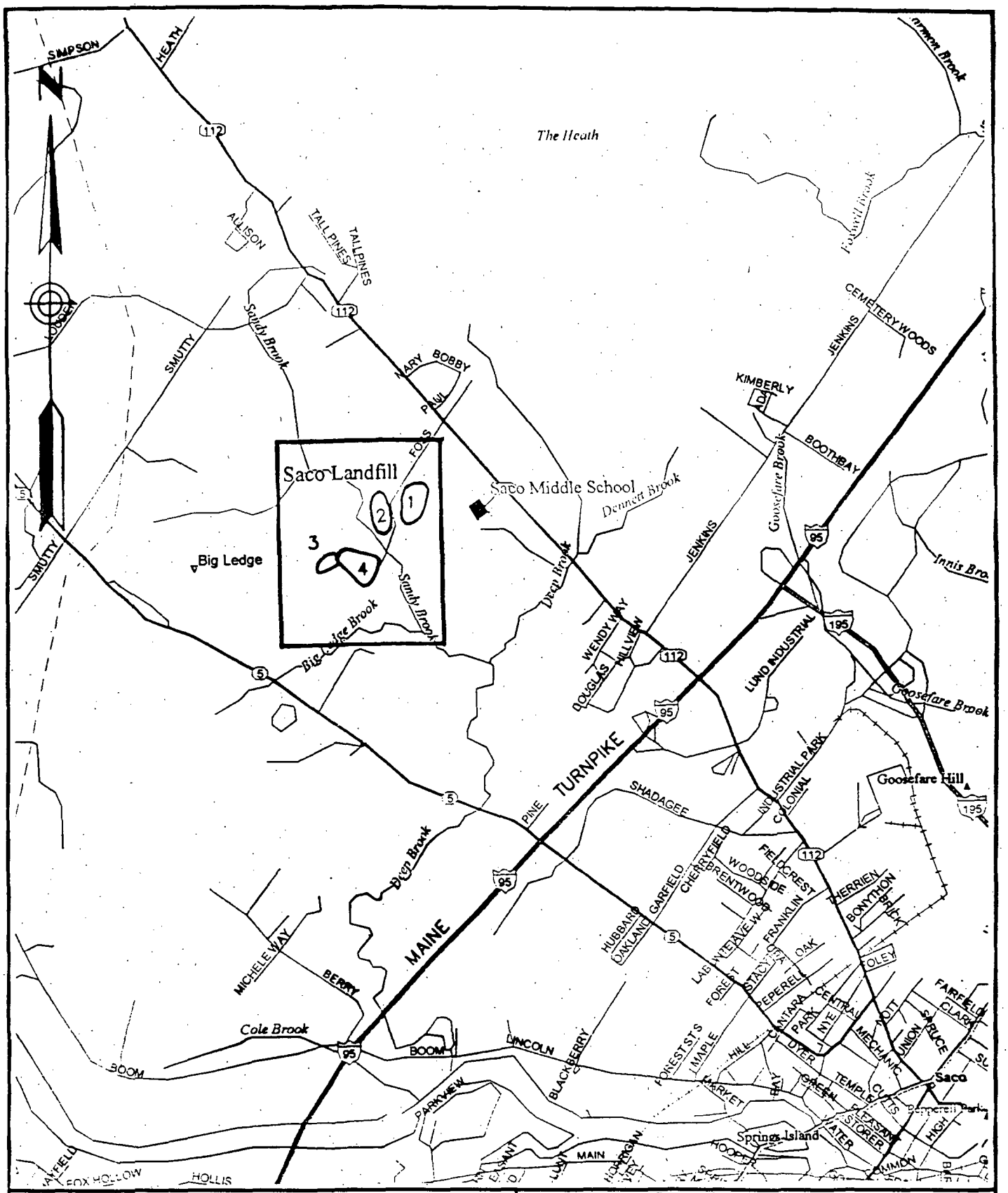
000075

AGENDA
SACO MUNICIPAL LANDFILL
PUBLIC HEARING
AUGUST 21, 1996

INTRODUCTION	Mary Jane O'Donnell	USEPA
OVERVIEW OF CLEANUP PROPOSAL	Edward Hathaway	USEPA
OPPORTUNITIES FOR PUBLIC INVOLVEMENT	Edward Hathaway	
OPEN HEARING FOR PUBLIC COMMENT	Mary Jane O'Donnell	

Public is provided with an opportunity to speak their comments into the record.

CLOSE HEARING FOR PUBLIC COMMENT	Mary Jane O'Donnell



BASE MAP SOURCE: Delorme, 1995.

WOODARD & CURRAN INC.
ENVIRONMENTAL SERVICES
Portland, ME • Bangor, ME • Dedham, MA

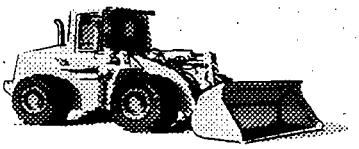
Saco Municipal Landfill
Saco, Maine
Engineering Evaluation/
Cost Analysis

FIGURE 1-1
Site Location Map

Project No: 95093.06	Drawn By: DRJ	May 1996

Based upon the studies performed by the City of Saco, EPA has identified the following action to address the contamination of the groundwater, surface water, and sediments:

- ***Grading Areas 3 and 4;***
- *Excavating contaminated sediments from a seep area and* ***consolidating the sediments in Area 4;***
- ***Constructing a multi-layer, low hydraulic conductivity cap, with surface drainage controls;***
- ***Maintenance of the cap; and***
- ***Long-term monitoring and land-use restrictions.***

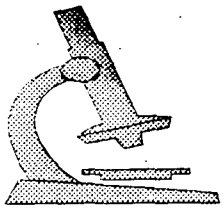


Scope and Role of this Action

This action is one part of the overall Superfund activities at the Site.

The investigations to evaluate groundwater, surface water, and sediments will continue. These studies will be used to determine the need for furthers actions to cleanup the groundwater and Sandy Brook.

This action is only possible because of the co-operation between EPA, *Maine DEP, and the City of Saco.*



Results and Areas of Concern

The data from the investigations has revealed:

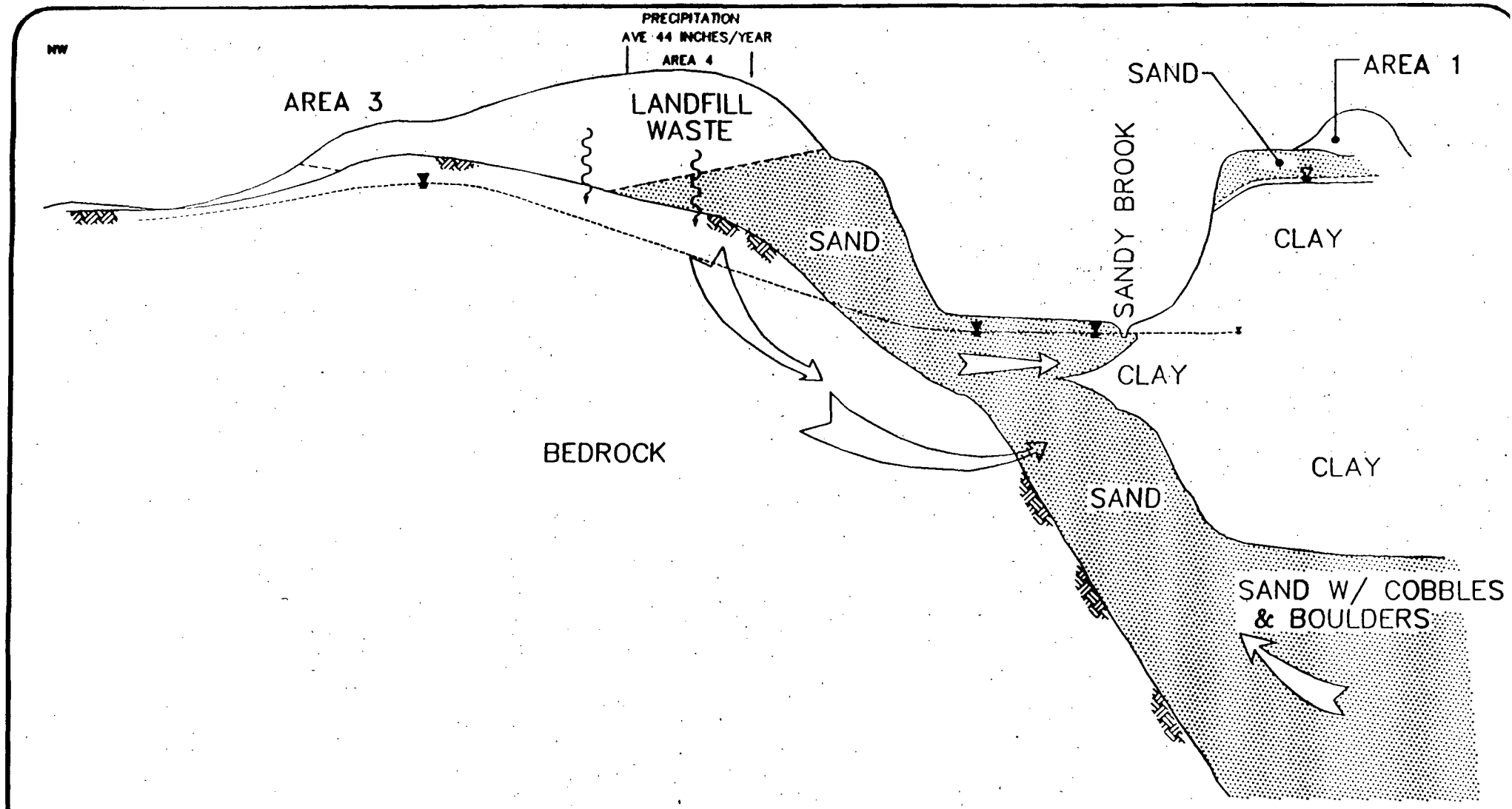
An area of groundwater contamination surrounding Area 4;

Soil contamination in a limited area adjacent to Area 3;

Sediment contamination in Sandy Brook and the seeps adjacent to Sandy Brook;

Surface water contamination in a few areas of Sandy Brook and the unnamed tributary to Deep Brook; and

Hazardous substances in the landfill gas at the vents.



LEGEND

GROUNDWATER ELEVATION

PURCHED WATER TABLE

GROUNDWATER FLOW

BEDROCK (PHYLLITE AND SCHIST)

DES.BY: ETC	DR.BY: MPW	CK.BY: ERW

SACO MUNICIPAL LANDFILL

GROUNDWATER FLOW AT
AREAS 3 AND 4

FIGURE 4

SCALE: AS NOTED	JOB NO.: 95093.06
DATE: JULY 1996	SHEET: GRFLOW2

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Results and Areas of Concern

Based upon the results of the investigations and an evaluation of the potential public health and environmental impacts EPA has proposed the following objectives for this action:

The overall objective of this action is to contain the source of the groundwater, surface water, and sediment contamination to protect future users of the groundwater and to protect ecological receptors.

Alternatives Evaluated

Assumptions used to identify alternatives:

Containment is the only viable option to control landfills without a bottom liner.

Therefore, treatment and removal alternatives were not considered as part of this action.

Site investigations determined that groundwater is not moving into the waste in Areas 3 and 4, therefore, up-gradient groundwater controls were not considered as part of this action.

Removal and consolidation was the only cost effective option for sediments.

The caps on Area 1 and Area 2 are acceptable.

Alternative Evaluated

Based upon the assumptions, two alternatives were evaluated to contain the landfill.

Alternative 1 was a solid waste landfill cap that would meet the minimum requirement of the Maine Solid Waste Closure Regulations.

Alternative 2 was a hazardous waste closure cap that would meet all of the requirements of the federal and state hazardous waste closure regulations and associated guidance.

Alternative Evaluated

The alternatives were compared based upon three criteria:

Effectiveness

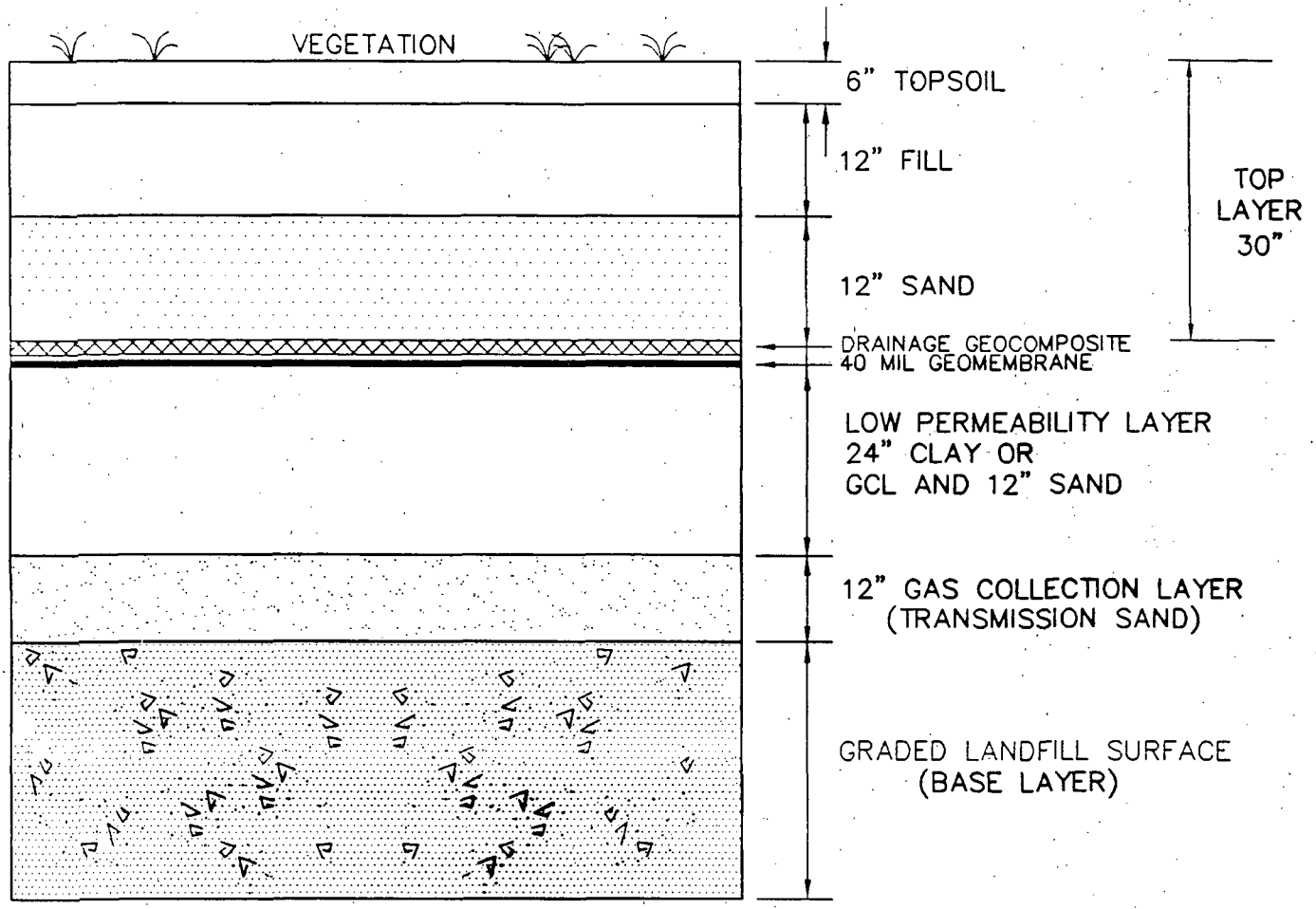
Implementability

Cost

Basis for Proposing this Action

Why does EPA recommend alternative 2, the multi-layer hazardous waste cap?

- ***Alternative 2 will provide the greatest reduction in leachate generation;***
- ***Alternative 2 is the only alternative that fully meets all federal and*** *state regulations and guidance;*
- ***Alternative 2 will have the most significant impact on groundwater restoration;***
- ***If Alternative 1 were selected, the State of Maine would require that the cap be upgraded to a design comparable to Alternative 2;***
- ***Alternative 2 contains a double barrier that will prevent infiltration of water into the waste even if the geomembrane has a hole.***



DES.BY: ERW	DR.BY: KAP	CK.BY: ERW

SACO MUNICIPAL LANDFILL
EE/CA

RCRA COVER SYSTEM CROSS-SECTION
ALTERNATIVE 2
GEOSYNTHETIC MATERIAL

SCALE: N.T.S.	JOB NO.: 95093.06	
DATE: JULY 1996	SHEET:	SLFDET5

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TABLE 4-6
Cost Estimate for Alternative 2: RCRA Cap With Natural Materials
Engineering Evaluation/Cost Analysis

Saco Municipal Landfill
Saco, Maine

ITEM	UNIT	ESTIMATED QUANTITY	UNIT $	ESTIMATED COST
DIRECT COST				
Grading and Base Preparation	ACRE	14	$10,000	$140,000
Excavation/Tpt of Waste & Backfill	C.Y.	5,000	$12	$60,000
Sediment Excavation and Consolidation	L.S.			$72,000
Cap				
Base Layer - 6"	C.Y.	11,300	$6	$68,000
Gas Sand - 12"	C.Y.	22,590	$10	$226,000
Barrier Soil - 24"	C.Y.	45,170	$10	$452,000
Membrane - 40-mil	S.Y.	67,760	$4	$271,000
Drainage Sand - 12"	C.Y.	22,590	$12	$271,000
Geotextile	S.Y.	67,760	$0.50	$34,000
Borrow - 18"	C.Y.	33,880	$8	$271,000
Topsoil - 6"	C.Y.	11,300	$16	$181,000
Seed/Erosion Control	ACRE	14	$5,500	$77,000
Gas vents	EA.	14	$2,500	$35,000
Stormwater Management Structures	L.S.			$150,000
Testing				
Soil	ACRE	14	$10,000	$140,000
Membrane	ACRE	14	$10,000	$140,000
Contingency (@ 20%)				$518,000
		TOTAL DIRECT COST		**$3,106,000**
INDIRECT COSTS				
Engineering And Design				$126,000
Health and Safety (@ 5% of Total Direct Costs)				$155,000
Construction Monitoring (@ 15% of Total Direct Costs)				$466,000
Legal Fees, Licenses etc. (@ 5% of Total Direct Costs)				$155,000
		TOTAL INDIRECT COST		**$902,000**
		TOTAL CAPITAL (DIRECT + INDIRECT) COST		**$4,008,000**

TABLE 4-6
Cost Estimate for Alternative 2: RCRA Cap With Natural Materials
Engineering Evaluation/Cost Analysis

Saco Municipal Landfill
Saco, Maine

ITEM	UNIT	ESTIMATED QUANTITY	UNIT $	ESTIMATED COST
ANNUAL OPERATING AND MAINTENANCE COSTS				
Environmental Monitoring				$88,000
Cap Maintenance				$15,000
Contingency (@ 20%)				$21,000
		ANNUAL O&M COST		$124,000
PRESENT WORTH OF O& M COSTS (@ 7% FOR THIRTY YEARS)				$1,539,000
		TOTAL COST AT PRESENT WORTH		$5,547,000

Basis for Proposing this Action

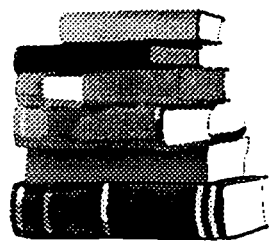
Benefits of this action:

- ✔ ***RI/FS start to cleanup decision in less than 1 year;***
- ✔ ***RI/FS start to construction start in less than 2 years;***
- ✔ ***Major source control actions will be complete;***
- ✔ ***EPA, MEDEP, and City of Saco partnership will continue to be successful;***
- ✔ ***Most efficient use of EPA, Maine DEP, and City of Saco time and money.***

Opportunities for Public Involvement

The library contains:

- ✔ ***results of the fall 1995 and spring 1996 sampling events;***
- ✔ ***work plans describing the studies performed with sample locations and sampling methods;***
- ✔ *the engineering evaluation/cost analysis for the proposed action;* ***and***
- ✔ ***all of the information updates.***



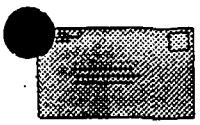
Opportunities for Public Involvement

You can have input on the proposed action by:

☞ ***sending written comments to EPA by August 30, 1996;***

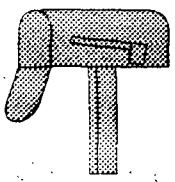
or

☞ ***speak your comments into the record at the August 21, 1996 public hearing.***



all comments should be mailed to

Edward Hathaway
EPA New England
Mailcode: HBT
JKF Federal Building
Boston, MA 02203



EPA will respond to all comments in a Responsiveness Summary