

FACT SHEET

**INSTALLATION RESTORATION
PROGRAM**
Naval Submarine Base New London

*U.S. Department of the Navy
Naval Submarine Base
New London
Office of Public Affairs*

May 1995

U.S. Navy Announces Plan to Clean Up Contaminated Soil at the Area A Landfill

SUMMARY

The Navy is proposing a cleanup plan, referred to as the Preferred Alternative or Proposed Plan, for contaminated soil at the Area A Landfill at the Naval Submarine Base New London. The Navy has published the Proposed Plan to encourage the public to review this and other cleanup alternatives considered by the Navy and to offer the public an opportunity to comment on them, either orally or in writing, before a final cleanup decision is made.

This Proposed Plan for the Area A Landfill recommends that a cover system or "cap" be placed over the entire landfill area to contain and isolate contaminated soils. This cap will be constructed of man made and natural materials designed to prevent rainfall and stormwater from entering the landfill and transporting landfill contaminants away from the landfill. The contaminants of concern in the landfill are Polychlorinated Biphenyls (PCBs): PCBs are organic compounds that were used

in electrical transformers as insulators and coolants, and in other industrial products. PCBs can be stored in the fatty tissues of humans and animals. Because PCBs have caused cancer in laboratory animals, The US Environmental Protection Agency (EPA) banned the use of PCBs in 1979.

This Proposed Plan, addresses contaminated soil only, not contamination of ground or surface water, which will be addressed at a later date.

The Navy examined nine cleanup alternatives for this site and determined that, of these, three were feasible. Besides the preferred alternative, they include removing soil containing high levels of PCBs for (1) disposal at an off site licensed chemical waste landfill or (2) treatment in an off-site incinerator. Both of these alternatives would also include placement of the cap over the entire landfill area. As required by law, these alternatives were also compared to a fourth alternative, that of no-action.

The Navy's recommendation for contaminated soil at the Area A Landfill is preliminary, not final. The Navy will review and consider public comments on the cleanup alternatives as part of its final decision-making process. Public comments or new information presented during the public comment period, may result in changes to the Proposed Plan. Following the comment period, the Navy will issue its final decision, including a summary of all oral and written comments received, together with the Navy's response to them.

**TO RECEIVE A COPY OF THE PROPOSED PLAN,
CONTACT THE NAVY SUBBASE AT**

203-449-5191

OR

YOU CAN REVIEW THE PROPOSED PLAN AND SUPPORTING TECHNICAL DOCUMENTS AT THE INFORMATION REPOSITORIES LISTED AT THE END OF THIS FACT SHEET

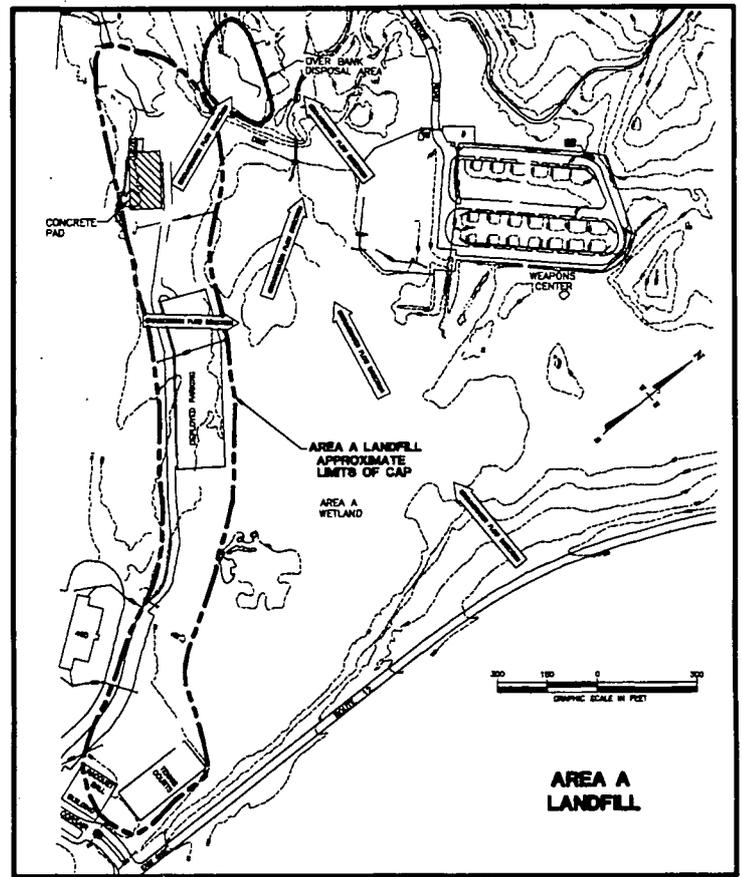
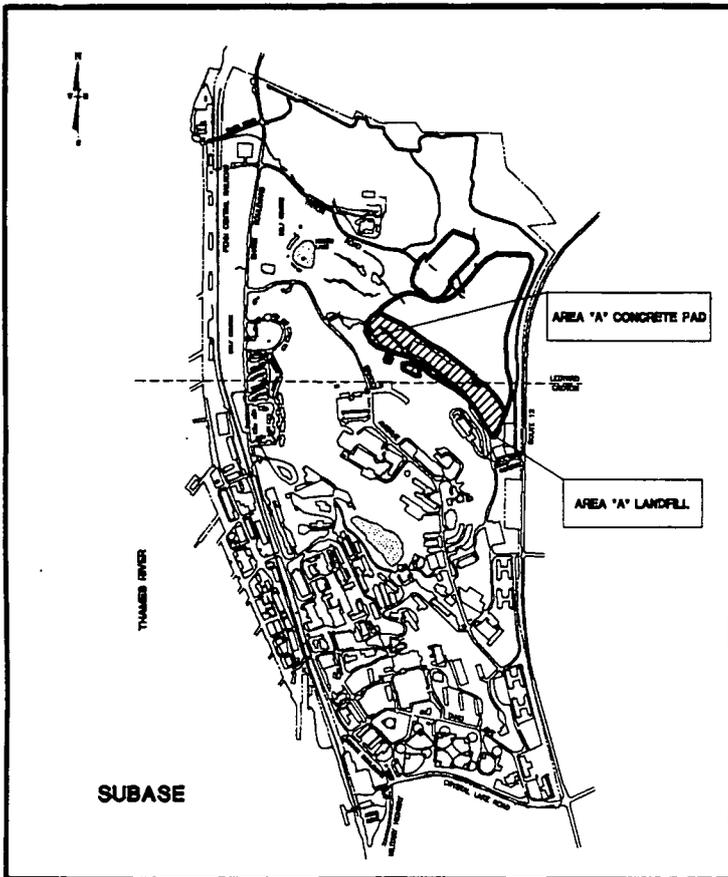
OPPORTUNITIES FOR PUBLIC COMMENT INCLUDE:

- **COMMENT PERIOD - MAY 31 - JUNE 30, 1995**
- **A PUBLIC MEETING - JUNE 7, 1995**
- **A PUBLIC HEARING - JUNE 28, 1995**

DETAILS AT THE END OF THIS FACT SHEET

What Information is in the Proposed Plan?

- 1. Description of opportunities for public comment**
- 2. Site history and results of site investigations**
- 3. Criteria used by the Navy to make decisions**
- 4. Brief analysis of the alternatives evaluated**
- 5. Reasons the Navy chose the preferred alternative**



Site History

The Navy's New London Subase consists of approximately 550 acres in the towns of Ledyard and Groton, CT on the east bank of the Thames River, approximately six miles north of Long Island Sound. For almost 100 years, the Subase has served as a major support center for the U.S. Atlantic fleet. Of necessity, the Subase has used, handled, stored, and disposed of hazardous materials, some of which have contaminated soil and/or ground or surface water in areas of the Subase.

The Area A landfill is located in the northeastern and north-central section of the Subase (see overall Subase map and landfill site map above). The site, covering up to approximately 13 acres, is a relatively flat area bordered by a steep, wooded hillside to the south, a steep wooded ravine to the west, and the Area A wetland to the north. Runoff from the landfill drains as overland flow north into the Area A wetland and eventually into the Thames River.

The landfill opened sometime before 1957 and received primarily ash from the Subase incinerator. After the Subase incinerator closed in 1963, industrial, commercial and household wastes from the Subase were disposed of at the landfill. The landfill closed in 1973. After closure, an asphalt pad was constructed in the southwest portion of the landfill for aboveground storage of industrial wastes. Steel drums, transformers, and electric switches were stored on the pad. All of these materials have

been properly disposed of off-site. Crane weights and other equipment are stored on the asphalt pad. The remainder of the landfill is not paved. In recent years, sand bags and contractor supplies and equipment have been stored over the landfill. There is also a gravel-covered parking lot at the landfill.

Investigating the Site

As part of its overall effort to address contamination problems at the Subase, the Navy has been conducting investigations of the Area A landfill over the past few years in accordance with federal and state environmental programs. These investigations have led to a better understanding of the problems posed by the landfill and provided the basis for a course of action.

Implementing an Interim Remedy

As a result of the investigations, and with the approval of federal and state environmental authorities, the Navy decided to accelerate cleanup activity by focussing at this time on just one aspect of the landfill: contaminated soils. Also, the Navy concentrated on evaluating cleanup alternatives that use commercially available technologies that have been proven effective at similar sites around the country.

The proposed remedy is considered final for one aspect of the site: contaminated soil/landfill contents, but because other aspects of the site must be evaluated further, the action is considered "interim" or not final for the Area A Landfill as a whole.

Soil Contamination at the Landfill

To determine the extent and degree of contamination at the site, the Navy collected and analyzed several soil samples, primarily from within the landfill limits. Each sample was analyzed for PCBs and other contaminants. Chemical concentrations found in the soil were then compared to federal and state cleanup standards, requirements or criteria.

Although several different contaminants were found, it was determined that PCBs were the primary concern at the site. Individuals considered to be at risk are workers involved in loading and unloading wooden pallets, those involved in excavation for storm sewers, and children playing on the landfill. Therefore, a cleanup objective was developed that would reduce human exposure to PCBs in both surface and subsurface soils.

For more information on the results of soil sampling and risk analysis, refer to the Proposed Plan and supporting technical documents.

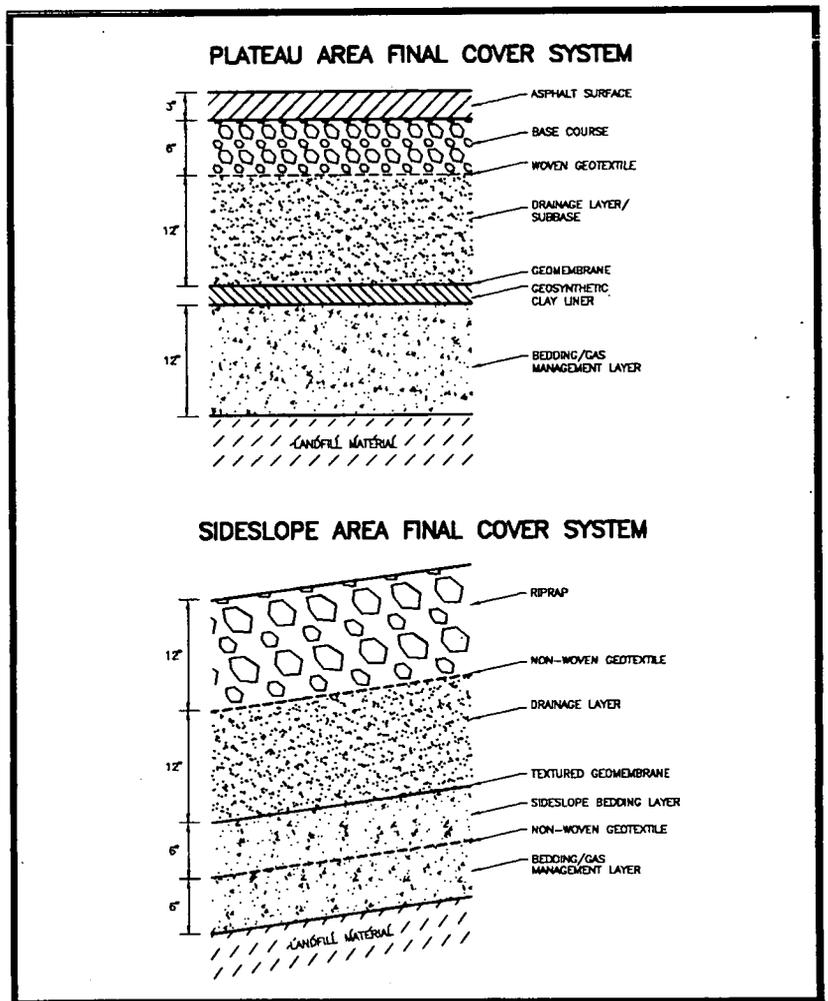
The Navy's Preferred Alternative

The Navy's preliminary selection of the preferred cleanup alternative for the Area A Landfill, as described in the Proposed Plan, is the result of a comprehensive evaluation and screening process that included federal and state guidance and requirements, as well as engineering judgment. The Navy believes that the preferred alternative summarized below will meet the cleanup objective established for contaminated soil and landfill contents.

A cover system or cap would be placed over the landfill wastes. The cap would consist of a double liner, topped with drainage netting, and an operating surface (see diagram on this page). The double liner will prevent water from entering the landfill. The geonet drainage layer, installed over the double liner, will remove water to prevent ponding above the liner, and the operating surface will protect the underlying cap layers from damage. This operating surface would consist of non-compacted, granular soil covered by an asphalt surface. The cap would be graded to prevent run-on and promote runoff.

Other features of the preferred alternative include:

- A groundwater interception system to collect shallow groundwater flowing to the landfill and reroute it around the landfill;
- Plugging existing storm drainage lines passing through the landfill and re-routing storm water;
- A system to collect the contaminated water within the landfill (leachate) for treatment and/or disposal, if necessary;
- A groundwater monitoring program to ensure the measures are effective in preventing further groundwater contamination;
- Controlling site access by continued maintenance of the existing perimeter fence and security procedures;



- Operations and maintenance procedures to prevent any unauthorized digging or other activities that could jeopardize the integrity of the cap.

The cap would be designed to allow continuation of current Area A Landfill operations and any future activities associated with new construction and operations at the Subbase. During cap construction, engineering controls will be used to minimize erosion and siltation into the Area A wetland. A health and safety plan will reduce the short term risk of human exposure to contaminated soil during installation of the cap and the other measures.

Other Alternatives Evaluated

The Proposed Plan includes an evaluation of two other alternatives, both of which involve removing soil containing high levels of PCBs for (1) disposal at an off site licensed chemical waste landfill or (2) treatment in an off-site incinerator. Both of these alternatives would also include placement of the cap over the landfill. As required by law, these alternatives were also compared to a fourth alternative, that of no-action. The Proposed Plan includes detailed information about the alternatives including estimated costs.

In the Navy's analysis of the alternatives, the preferred alternative is easier to implement and is more cost effective than the other alternatives considered.

The Public's Role in the Decision-Making Process

Public Comment Period - May 31, 1995 - June 31, 1995

The Navy will conduct a public comment period for 30 days from May 31 to June 30, 1995. During this comment period, the public is invited to review the Proposed Plan and make written or oral comments to the Navy. These comments will be considered before a remedy is selected.

Public Informational Meeting - June 7, 1995

The Navy will hold a public meeting on June 7, 1995 at 7:00 p.m. at the Shepherd of the Sea Chapel on Gungywamp Road in Groton, to explain the preferred alternative and other feasible alternatives for the site. The public is encouraged to attend this meeting. Comments and questions are welcome.

Public Hearing June 28, 1995

The Navy will hold a public hearing on June 28, 1995 at 7:00 p.m. at the Shepherd of the Sea Chapel on Gungywamp Road in Groton. At this public hearing, the Navy will accept oral comments on the cleanup alternatives presented in the Plan. Comments made at the hearing will be transcribed, and a copy of the transcript will be added to the site Administrative Record available at the information repositories listed below.

Written Comments

Individuals wishing to comment in writing on the Navy's preferred alternative or any of the other cleanup alternatives under consideration, may deliver their written comments to the Navy at the Public Hearing on June 28, 1995 or may mail them (post-marked no later than June 30, 1995) to the address below.

MAIL YOUR WRITTEN COMMENTS ON THE PROPOSED PLAN TO

Mr. Mark Evans
Remedial Project Manager
Northern Division Naval Facilities Command
10 Industrial Highway - Mail Stop #82 - Code 1823
Lester, PA 19113
(610) 595-0567 ext. 162

THE PROPOSED PLAN AND SUPPORTING TECHNICAL DOCUMENTS CAN BE REVIEWED AT THESE INFORMATION REPOSITORIES

Groton Public Library
52 Route 117
Groton, CT 06340 203-441-6750

Bill Library
718 Colonel Ledyard Highway
Ledyard, CT 06339 203-464-9912

Naval Submarine Base New London Library
Naval Submarine Base New London
Groton, CT 06349
Contact: Betty Monahan 203-449-3723

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