

# PROPOSED PLAN DRMO

U.S. Department of the Navy  
Naval Submarine Base  
New London

INSTALLATION RESTORATION  
PROGRAM

April 1994

1274

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## U.S. Navy Announces Plan to Clean Up Contaminated Soil at the Defense Reutilization Marketing Office (DRMO) Naval Submarine Base, New London

The U.S. Department of the Navy is proposing a cleanup plan, referred to as the Preferred Alternative or Proposed Plan, for contaminated soil at the Defense Reutilization Marketing Office (DRMO) at the Naval Submarine Base New London. The Navy is publishing this Proposed Plan to enable the public to review this and other cleanup alternatives considered by the Navy and to offer the opportunity to comment on them, either orally or in writing, before the final cleanup decision is made.

The Proposed Plan recommends that: 1) soil contaminated with elevated levels of lead, Polychlorinated Biphenyls (PCBs), and those Polycyclic Aromatic Hydrocarbons (PAHs) that are recognized as probable human carcinogens (CPAH) be excavated and disposed of at an off-site licensed hazardous waste landfill; and 2) inaccessible soil and soil with low concentrations of contaminants be contained through the construction of an impermeable cap. This Proposed Plan is preliminary, not final. The Navy's recommendation is one of 10 cleanup alternatives examined for this site. Of these, three were deemed feasible for the site. Besides the preferred alternative, they include: 1) leaving all soil on-site, but containing the soil through construction of an impermeable cap; 2) treating soil with elevated levels of contaminants through a process of **thermal desorption**, as well as containing inaccessible soil through the construction of an impermeable cap. As required by law, these alternatives are also compared to a fourth alternative, that of no-action. The **Focused Feasibility Study (FFS) Report** contains a detailed description of each alternative, and is available at the Information Repositories listed on page 3 of this Proposed Plan. This Proposed Plan:

1. Explains the opportunities for the public to comment on the remedial alternatives;
2. Includes a brief history of the site and the main findings of the remedial investigations;
3. Outlines the criteria used by the Navy to recommend this cleanup alternative for the site;
4. Provides a brief analysis of the preferred alternative and the other alternatives evaluated in the **Focused Feasibility Study (FFS)**;
5. Presents the Navy's rationale for its preliminary selection of the preferred alternative.

Words that appear in bold print are defined in the glossary at the end of this document.

## The Public's Role in the Decision-Making Process

To help the public participate in the decision making process for this site, this document also explains where and how interested citizens can receive information about the cleanup alternatives and comment on them. Opportunities for public involvement include:

### *Public Informational Meeting*

The Navy will hold a public meeting on (should be soon after this document is published) 1994 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 Comment Period*

The Navy will conduct a public comment period from (day after meeting) to (30 days later). During this comment period, the public is invited to review this Proposed Plan and make written or oral comments to the Navy. These comments will be considered before a final remedy is selected.

### *Informal Public Hearing*

The Navy will hold an informal public hearing on (one day during the latter half of the public comment period) at the same time and place as the public informational meeting. During this informal public hearing, the Navy will accept oral comments on the cleanup alternatives presented in this 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 EPA Records Center in Boston and at the information repositories listed on the next page.

### *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 Informal Public Hearing on date...? or may mail them, postmarked no later than the last day of comment period, to:

Mr. Richard Conant  
IRP Program Manager  
Naval Submarine Base New London  
Groton, CT 06349-5100  
(203) 449-5191

### *Review of Public Comments*

The Navy will review and consider public comments on the cleanup alternatives as part of its final decision-making process for selecting the final cleanup alternative for the site. If public comments or new information are presented to them during the public comment period, the Proposed Plan may be changed to reflect the new data. The Navy will issue its final decision in a **Record of Decision (ROD)** that details the selected option for the site. The ROD will include a **Responsiveness Summary** of all oral and written comments received during the public comment period, together with the Navy's response to them.

### *Additional Information*

This Proposed Plan provides only a summary description of the investigation of the DRMO at the New London Submarine Base. For additional information, the public is encouraged to review the **Focused Feasibility Study (FFS)**, which contains a more detailed explanation of the nature and extent of the contamination at the site, as well as an in-depth explanation of the advantages and disadvantages of the various cleanup alternatives considered. The FFS, the Phase I Remedial Investigation Report, fact sheets, and other documents pertaining to the site are available for review at the following locations:

#### *Groton Public Library*

52 Route 117  
Groton, CT 06340  
(203) 441-6750

#### Hours:

Mon-Thurs. 9 a.m. - 9 p.m.  
Fri. 9 a.m. - 5:30 p.m.  
Sat. 9 a.m. - 5 p.m.  
Sun. noon - 6 p.m.

#### *Bill Library*

718 Colonel Ledyard Highway  
Ledyard, CT 06339  
(203) 464-9912

#### Hours:

Mon-Thurs 9 a.m. - 9 p.m.  
Fri & Sat. 9 a.m. - 5 p.m.  
Sun. 1 p.m. - 5 p.m.

#### *Naval Submarine Base Library*

Groton, CT  
(203) 449-3723

#### Hours:

Mon-Fri. 10 a.m. - 8 p.m.  
Sat. 10 a.m. - 6 p.m.  
Sun. Closed

#### *EPA Records Center*

90 Canal Street  
Boston, MA 02114  
(617) 573-5729

#### Hours:

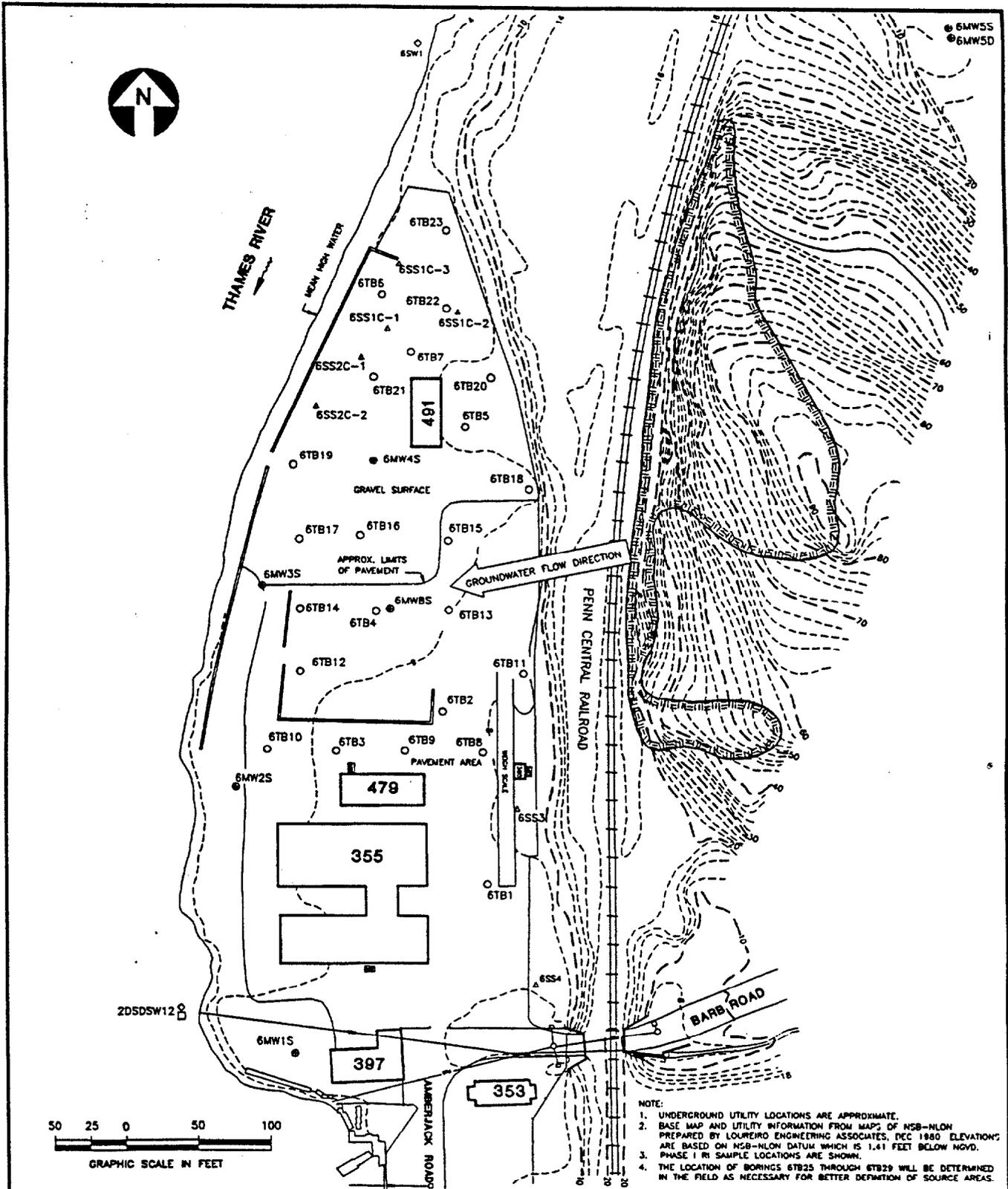
Mon-Fri. 10 a.m. - 1 p.m.; 2 p.m. - 5 p.m.  
Sat & Sun. Closed

## Site History

The Navy's Submarine Base in New London (Subase) consists of approximately 550 acres of land in southeast Connecticut in the towns of Ledyard and Groton, 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.

Located next to the Thames River in the northwest section of the Subase, the DRMO was used as a major base landfill and burning ground from 1950 to 1969 (see site map, next page). Materials burned and landfilled included construction materials, combustible scrap, and other non-salvageable waste items. A battery acid handling facility was located there, as was an in-ground tank and associated pumping facilities for spent acid storage. The DRMO is now the collection and storage facility for items to be sold at auction sales held periodically throughout the year. Scrap metal is also temporarily stored there prior to being transported off this site. DRMO operations at this site currently include storage of various items, including submarine batteries, white goods, and empty drums.

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**INSTALLATION RESTORATION STUDY  
NAVAL SUBMARINE BASE-NEW LONDON  
GROTON, CONN.**

● 6MW1 MONITORING WELL  
○ 6TB1 TEST BORING  
○ 2DSD1 SEDIMENT SAMPLE  
△ 6SS1 SURFACE SOIL SAMPLE  
○ 2DSW1 SURFACE WATER SAMPLE

---10--- EXISTING CONTOUR  
---223--- BUILDING NUMBER  
--- WATERCOURSE  
--- STW--- STORM SEWER  
□ CATCH BASIN

**FIGURE 1-4  
SITE PLAN  
DRMO**

ATLANTIC ENVIRONMENTAL SERVICES, INC.

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## Site Activities to Date

*The IRP and CERCLA.* In 1975, the Department of Defense developed a program to investigate and clean up problem areas involving hazardous waste at federal facilities such as the Submarine Base in New London. That program, known as the **Installation Restoration Program (IRP)**, is being conducted in accordance with the **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**, commonly referred to as the **Superfund law**. In 1986, Congress passed Amendments to CERCLA which contain provisions for federal facilities.

The Subbase was placed on the National Priorities List (NPL) of federal Superfund sites on August 30, 1990 by the U.S. Environmental Protection Agency (EPA). A Phase I **Remedial Investigation (RI)** was completed for nine sites at the Subbase, including the DRMO. The Phase I report evaluated potential risks to human health and the environment from contaminants at each site. Several of the nine sites, including DRMO, were determined to pose potential risks.

*Remedial Investigations to Date.* To address the potential risks at these sites, a **Feasibility Study (FS)** to identify and evaluate cleanup alternatives was begun for each of the sites. As work on the feasibility study progressed, EPA expressed concern about the data on which the FS was based. As a result, work on the FS was stopped and a Phase II RI workplan was developed to address EPA's concerns and to implement recommendations made in the Phase I RI.

*Accelerated Action for Four Sites.* The time required for full implementation of the Phase II RI Work Plan, preparation of a Phase II RI report, FS, and selection of final remedial alternatives for the sites may take several years. Therefore, the Navy decided to accelerate remedial activities for selected **media** at four of the sites for which risks had been positively identified, in order to eliminate or minimize risks from those areas. The DRMO is one of the four sites selected for accelerated action. The accelerated plan of action submitted to EPA will enable the Navy to collect design data, complete focused feasibility studies, and design accelerated remedial action programs to eliminate or lessen risk. It also provides for the simultaneous preparation of focused feasibility study reports, and final plans/specifications.

*Focused Feasibility Study.* This Proposed Plan is based on a "Focused" Feasibility Study report for two reasons. The study was "focused" on potential remedial alternatives for one operable unit—contaminated soils—and on a few selected remedial alternatives that use commercially available, proven technologies. The DRMO accelerated remedial action is intended to be a final remedial action for contaminated soil and will be implemented in accordance with all administrative procedures required by law for final remedial actions.

No further soil remediation is anticipated at this site after accelerated remedial actions have been completed. However, chemical analysis of groundwater samples and an ecological risk assessment will be performed to evaluate the impact of groundwater discharges from the DRMO on the Thames River ecology. Based on this evaluation, a determination will be made whether on-site groundwater remediation is necessary.

## Soil Contamination at the DRMO

The field investigation at DRMO consisted of soil collection and analysis to characterize the extent and degree of soil contamination at the site. The proposed removal action at this site

is specifically aimed at removing source or "hot spot" areas of the three identified contaminants of concern: lead, PCBs, and CPAH. Five distinct "hot spot" areas have been identified at the DRMO for extraction and removal. An underground spent acid tank and associated concrete pad will also be removed. The total volume of lead, PCB, and CPAH contaminated soils is estimated to be approximately 900 cubic yards. Hot spot areas are defined as areas where

- levels of lead in soil exceed 1,000 ppm
- levels of PCBs in soil exceed 10 ppm
- levels of CPAH exceed 100 ppm.

## Proposed Cleanup Objectives

*Remedial action objectives* are established by identifying

- the contaminants of concern (in this case, lead, PCBs, and CPAH);
- the media (air soil or water) in which the contaminants occur (in this case, soil);
- the potential exposure routes or pathways by which the contaminants may reach potential receptors (persons, animals, or the environment);
- the remediation goals (the elimination or reduction of contamination to acceptable levels).

The primary objective is always to protect human health and the environment. Cleanup objectives, at a minimum, must comply with the statutory requirements for CERCLA remedies as promulgated in the National Contingency Plan (NCP). They must also meet all Applicable or Relevant and Appropriate Requirements (ARARS).

*Target remedial levels* for contaminants in the soil are designed to ensure that there is little opportunity for individuals to encounter hot spots where contaminants may be present at high levels, and also to ensure that the overall risk associated with activities at the DRMO does not pose a threat to human health. Contamination-specific target goals for DRMO are as follows:

**PCBs:** The selected target remedial level for PCBs in the soil is 10 parts per million (ppm). By removing all hotspots containing more than 10 ppm PCB, the average site PCB levels will be less than 2 ppm. The 2 ppm standard is also the cleanup level recommended by the Connecticut Department of Environmental Protection (CTDEP). Ten ppm is the EPA spill cleanup standard for use in non-restricted areas.

**CPAH:** The selected target remediation level for CPAH in soil is 100 ppm. By removing all hotspots containing more than 100 ppm PAH, the average site PAH levels will be less than 13 ppm.

**Lead:** The selected target remediation level for lead in soil is 1,000 ppm. This target is the lower end of a risk-based range calculated for potential exposure scenarios at this site. It was selected so that the target level would be in the range of 500-1000 recommended by EPA.

## The Development of the Navy's Preferred Alternative

The Navy's preliminary selection of the preferred cleanup alternative for the DRMO, as

described in this Proposed Plan, is the result of a comprehensive evaluation and screening process. The Focused Feasibility Study (FFS) for the DRMO describes the alternatives considered for addressing soil contamination at the site, as well as the process and criteria the Navy used to narrow the list to four potential remedial alternatives, and is available for review at the Information Repositories listed on page 3 of this Proposed Plan.

The following nine criteria are used to evaluate the alternatives identified in the FFS. The final remedial alternative selected for this site must represent the best balance among the evaluation criteria. The first two criteria must be met before any alternative may be carried forward for further evaluation.

1. *Overall protection of human health and the environment* addresses how an alternative as a whole will protect human health and the environment over time. This includes an assessment of whether risks are properly eliminated, reduced, or controlled.
2. *Compliance with applicable or relevant and appropriate requirements (ARARs)* addresses whether or not a remedy complies with all state and federal environmental and public health laws and requirements that apply or are relevant and appropriate to the site conditions and cleanup options.

The next five criteria are used as primary balancing criteria when evaluating alternatives:

3. *Short-term effectiveness* refers to the likelihood of any adverse impacts on human health or the environment that may be posed during the construction and implementation of the alternative.
4. *Long-term effectiveness and permanence* refers to the ability of the alternative to maintain reliable protection of human health and the environment over time once the cleanup activity has been completed.
5. *Reduction of toxicity, mobility, or volume* measures the overall performance of an alternative. The 1986 amendments to the Superfund statute (SARA) emphasize that, whenever possible, the selected remedy should utilize a treatment process that permanently reduces the level of toxicity of contaminants at the site, the spread of contaminants away from the source (mobility), and the volume, or amount, of contamination at the site.
6. *Implementability* evaluates the technical and administrative feasibility of an alternative, including the availability of materials and services needed for the alternative.
7. *Cost* includes the capital (up-front) cost of implementing the alternative as well as the cost of operating and maintaining the alternative over the long term.

The final two criteria are considered in the final selection among otherwise viable alternatives:

8. *State acceptance* addresses whether, based on its review of the RI/FFS and Proposed Plan, the State concurs with, opposes, or has no comment on the alternative the Navy is proposing as the remedy for the site.
9. *Community acceptance* addresses whether the public concurs with the Proposed Plan. Community acceptance of this Plan will be evaluated based on comments received at the upcoming public meeting and during the public comment period.

## The Navy's Preferred Alternative

Based on a detailed analysis of these factors, the Navy has made a preliminary two-part recommendation:

1. All accessible soils in hot spots be excavated and disposed of at an off-site licensed hazardous waste (RCRA) landfill. Accessible soils are defined as those soils that a person could potentially be exposed to, from the ground surface to a depth of three feet. Prior to disposal in an off-site RCRA landfill, lead-contaminated soils would be stabilized as necessary to meet land disposal restriction requirements.
2. The disposal would be followed by the placement of an impervious cap covering about 61,000 square feet of the site. The cap would consist of a flexible membrane bentonite composite liner, overlain with a drainage netting, nonwoven geotextile, and 12 inches of compacted crushed stone. Placed over unpaved areas of the site, the cap would be graded to prevent runoff and promote runoff. Access to the site would continue to be controlled by maintenance of the existing perimeter fence and security procedures. Although the cap would be designed to allow continuation of current DRMO operations, proper maintenance of the cap and fence would be required to ensure its long-term integrity. DRMO would be required to develop operation procedures to prevent any digging or other activities that could jeopardize the integrity of the cap.

*Risks associated with this alternative.* Overall, the preferred alternative would comply with all state and federal applicable or relevant and appropriate requirements (ARARs). The risk of ingestion or dermal (skin) contact of contaminants would be reduced. In the long run, removal and disposal of surface and subsurface soils off-site would permanently eliminate exposure to accessible contaminated soils, thereby meeting risk-based remedial action objectives. Installation of the impervious cap in the long-term would effectively eliminate human exposure to any unidentified isolated hot spots not identified during the field investigation, and/or to inaccessible soils, by ensuring that remaining inaccessible soils are not disturbed. Site grading and stormwater management, together with the impermeable cap, will prevent water from percolating through the soil below, thus reducing leachate from low level contaminated soils in the unsaturated zone. Some improvements to ground water may be expected. However, because some contaminated soil may remain in the saturated zone, these improvements may be limited. Installation of the cap does not eliminate the possibility that contaminants in the saturated zone may leach to groundwater or that organic compounds may migrate both laterally as well as vertically.

The potential for short-term exposure or migration of contaminants through runoff or leaching would occur only during the short term, while excavation and cap installation activities are underway. No future construction projects are proposed for the DRMO, and if there were to be any future construction, it is unlikely that excavation would go to the depth of inaccessible soils.

A five year review would be required with this alternative as not all hazardous substances are being removed.

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*Estimated Time for Construction: 13 months*  
*Estimated Capital Cost: \$722,000*  
*Estimated Operation and Maintenance Cost: \$34,000*  
*Estimated Total Cost: \$756,000*

## **Other Alternatives Evaluated in the FFS**

The other three alternatives that the Navy evaluated in detail are described briefly below. A more detailed description of each one can be found in the FFS report.

**Alternative 2: Capping only.** This alternative consists of the installation of a 61,000 square foot impervious cap over unpaved areas of the site that contain contaminated soils above target remediation levels. The cap described below would be constructed exactly the same way as would the cap in the preferred alternative described above. It would be designed to allow continuation of current DRMO operations, and consist of an impervious flexible membrane, bentonite composite liner overlain with drainage netting, nonwoven geotextile, and 12 inches of compacted crushed stone (operating surface). The cap would be graded to prevent runoff and promote runoff. Access to the site would be controlled by continued maintenance of the existing perimeter fence and security procedures.

Proper maintenance of the cap and fence would be required to ensure their long-term integrity. DRMO would be required to comply with operation procedures that prevent any digging or other activities (without prior approval) that could jeopardize the integrity of the cap. Also, a deed restriction providing notice of remaining hazardous materials at the site would be implemented. This could include a provision for proper approval of any site excavation/construction activities to ensure the integrity of the cap, adequate worker protection, and other environmental considerations.

*Health risks* from capping activities would be minimal with this alternative. Installation of an impervious cap would effectively eliminate human exposure to surface soil since they become inaccessible, thereby eliminating risks due to direct contact and ingestion. However, construction workers putting in a foundation or engaged in similar below-grade activities would still be exposed to contaminants in both surface and subsurface soils as they would need to penetrate the cap to accomplish the work. Capping does not eliminate the possibility that contaminants in the saturated zone could leach into the groundwater, or that organic compounds could migrate both laterally as well as vertically. A five year review would be required with this alternative as no hazardous substances would be removed.

*Estimated Time for Construction: 12 months*  
*Estimated Capital Cost: \$199,000*  
*Estimated Operation and Maintenance Cost: \$35,000*  
*Estimated Total Cost: \$234,000*

**Alternative 3: On-Site Thermal Desorption and Capping.** This alternative includes the removal and on-site treatment of contaminated soil hot spots and the placement of an impervious cap (identical to the cap described in the preferred alternative) over the remaining residual levels of contamination. On-site treatment would consist of a thermal desorption unit to remove organic contamination followed by stabilization of treated residues to immobilize

remaining inorganic contaminants. Treated/stabilized soils would be backfilled into the excavations from which they were removed. All hot spots would be excavated, treated, and backfilled.

The impervious cap, which would cover 61,000 square feet of the site, would consist of an impervious flexible membrane, bentonite composite liner overlain with drainage netting, nonwoven geotextile, and 12 inches of compacted crushed stone (operating surface). The cap would be graded to prevent runoff and promote runoff. Access to the site would be controlled by continued maintenance of the existing perimeter fence and security procedures. Proper maintenance of the cap and fence would be required to ensure their long-term integrity.

*Risks associated with this alternative.* Short term exposure to contaminated soils under this alternative potentially could be fairly high, as removal, grading, and material handling for processing would cause dermal (skin) and ingestion of soil as well as exposure to dust **particulates and volatiles**. These short-term exposures could be mitigated. The more significant short-term exposures regard potential air emissions from the thermal treatment facility. If proper air pollution control devices are used, these emissions would not present significant risks to either human health or the environment.

The long-term treatment provided in this alternative would permanently eliminate exposure to organic contaminants in accessible soils. Thermal desorption units should be able to achieve a 90 percent or greater removal efficiency for organics. However, exposure to lead in these soils would still be a concern. The stabilization would reduce but not eliminate the potential for persons to be exposed to lead in the treated soils. Installation of a cap does not eliminate the possibility that contaminants in the saturated zone may leach into groundwater, or that organic compounds may migrate both laterally as well as vertically. A five year review would be required with this alternative as not all hazardous substances are being removed.

*Estimated Time for Construction: 20 months*

*Estimated Capital Cost: \$976,000*

*Estimated Operation and Maintenance Cost: \$34,000*

*Estimated Total Cost: \$1,010,000*

**Alternative 4: No Action.** Analysis of the No Action alternative is required by Federal law and is included for comparison with other alternatives. A No Action alternative is developed for each Superfund site to assess impact on public health and the environment if no measures are taken to correct current site conditions. The no-action alternative would only be used if the site posed little or no risk to public health and the environment.

The No-Action alternative for the DRMO would consist of taking no action to either contain, treat, or otherwise minimize risk. In addition, no long-term maintenance, monitoring, or institutional controls would be implemented at the site.

*Risks associated with this alternative.* The alternative provides no control of exposure to the contaminated soils, and therefore, does not reduce the risk to human health or the environment. It also allows for further migration of contaminated soils. This alternative is unacceptable, as it would not provide adequate protection to either persons or the environment.

*Estimated Time for Construction: no construction*

*Estimated Total Cost: 0*

## **The Navy's Rationale for Selecting the Preferred Alternative**

Based on current information and analysis of the RI and FFS reports, the Navy believes that the Proposed Plan for the treatment of contaminated soils at the DRMO is consistent with the requirements of its IRP, the Superfund law and its amendments, and to the extent practicable, the National Contingency Plan. The preferred alternative, and alternatives 2 and 3 would each provide overall protection of human health and the environment. In the Navy's analysis, however, the preferred alternative identified in this Proposed Plan is more readily implementable and cost-effective than the other alternatives considered. In addition, the preferred alternative would achieve the best balance among the criteria used by the Navy to evaluate such alternatives, including the important criteria of community acceptance. The preferred alternative would effectively eliminate or reduce in both the long and short term the principal threats posed by the DRMO which are risks to human health due to direct contact and erosion of contaminated soils. In addition, future workers involved in subsurface construction would be protected from risks as accessible soils containing concentrations above target cleanup levels would be removed.

The preferred alternative will attain all federal and state applicable or relevant and appropriate public health and environmental requirements (ARARs), would reduce the mobility and toxicity of contaminated soils, and utilizes permanent solutions and treatment to the maximum extent practicable.

### **For More Information**

If you have any questions about the site or would like more information, you may call or write to:

Richard Conant  
Installation Restoration Manager  
Naval Submarine Base New London  
Groton, CT 06349-5100  
(203) 449-5191

LCDR Ruth Noonan  
Public Affairs Officer  
Naval Submarine Base New London  
Groton, CT 06349-5100  
(203) 449-3148

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## **Glossary**

***Carcinogen:*** Any substance that causes cancer.

***CERCLA:*** The Comprehensive Environmental Response, Compensation, and Liability Act is a federal law passed in 1980 and amended by Congress by the Superfund Amendments and Reauthorization Act of 1986. The law establishes a national trust fund (known as Superfund) to investigate and remediate abandoned or uncontrolled hazardous waste sites.

***Contaminant:*** Any physical, chemical, biological, or radiological substance or matter that, at certain levels, has an adverse affect on human health or the environment.

***CPAHs and PAHs:*** Polycyclic Aromatic Hydrocarbons (PAHs) are compounds that contain carbon that are not volatile or soluble and therefore tend to adsorb (stick to) soil and sediments. PAHs include chemical constituents found in substances such as coal tar and asphalt. PAHs that are known to cause cancer are identified as CPAHs.

***FFS:*** The Focused Feasibility Study (FFS) is the description or analysis of potential remedial alternatives for only one operable unit (such as soils) and normally includes a few selected remedial alternatives that use commercially available, proven technologies.

***FS:*** The Feasibility Study (FS) is a report that summarizes the development and analysis of the cleanup alternatives considered for the site.

***Impermeable:*** Something that restricts or prohibits the passage of something, especially fluids.

***Installation Restoration Program (IRP):*** The program established by the Department of Defense in 1975 to investigate, identify, and clean up hazardous waste contamination at federal facilities.

***Media:*** Air, soil, and ground or surface water are the three things most often examined for contamination. Each of these is referred to as a medium; collectively, they are referred to as media.

***National Contingency Plan (NCP):*** The federal regulation that guides implementation of the Superfund Program. Commonly referred to as the NCP, the full name of the regulation is the National Oil and Hazardous Substances Contingency Plan.

***National Priorities List:*** EPA's list of the nation's top priority hazardous waste sites identified for possible long-term cleanup action. Abandoned or otherwise uncontrolled NPL sites are eligible for funding from the trust fund known as the Superfund.

***PCBs—Polychlorinated Biphenyls:*** A family of organic compounds used since 1926 in electrical transformers as insulators and coolants, in lubricants, carbonless copy paper, adhesives, and caulking compounds. PCBs can be stored in the fatty tissues of humans and animals. Because PCBs have caused cancer in laboratory animals, EPA banned the use of PCBs in 1979,

***Particulates:*** Minute particles.

***Proposed Plan:*** A brief summary of the preferred cleanup method(s) and other alternatives that have been considered for use at the site.

***Remedial Investigation (RI):*** A summary report of the information collected on the nature and extent of contamination found at a Superfund site and the problems that the contamination causes. It directs the types of cleanup options that are developed in the Feasibility Study.

**Responsiveness Summary:** A summary of written and oral comments received during the public comment period, together with the Navy or EPA response to these comments.

**ROD:** The Record of Decision (ROD) is a public document that explains the remedial alternative selected by DOD or EPA after considering all information and technical analysis, as well as all public comments and concerns.

**Superfund:** The common name of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

**Thermal Desorption:** A thermal unit separates organics from soil by heating the soil mixture to drive off the contaminants. The desorption process is used in conjunction with separate processes such as incineration and condensation to control the volatilized contaminants.

**Thermally:** By means of heat

**Volatiles:** Chemical substances that vaporize or evaporate quickly, such as alcohol.

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