



PROPOSED REMEDIAL ACTION PLAN

Site 7, Former Beryllium Landfill

U.S. NAVY ANNOUNCES THE SITE 7 PROPOSED REMEDIAL ACTION PLAN

This Proposed Remedial Action Plan (PRAP) has been prepared to evaluate the need for additional cleanup at the Former Beryllium Landfill (Site 7) at Allegany Ballistics Laboratory (ABL) Superfund Site in Rocket Center, West Virginia. The Plan proposes no further remedial action and provides the rationale for this preference, based on all of the activities performed at this site to date. This document is issued by the Department of the Navy (Navy), the lead agency for the site activities, and the U. S. Environmental Protection Agency Region III (EPA) and the West Virginia Department of Environmental Protection (WVDEP), the support agencies. The Navy and EPA, in consultation with WVDEP, will make a final decision on the remedial action for Site 7 after reviewing and considering all information submitted during the 45-day public comment period. The Navy and EPA, together with WVDEP, may modify the preferred remedial action or select another action based upon any new information or public comments. Therefore, community involvement is critical in the decision making process and the public is encouraged to review and comment on this Proposed Plan. The Navy, in consultation with EPA and WVDEP, will document the remedy selection for the site in a Record of Decision (ROD) after the public comment period has ended and the comments and information submitted during that time have been reviewed and considered. The ROD is the document that presents the selected remedy for the site.

The Navy is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as the "Superfund Program," and Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Proposed Plan

MARK YOUR CALENDAR FOR THE PUBLIC COMMENT PERIOD

May 18 - July 2, 2001

The Navy will accept written comments on the Proposed Remedial Action Plan during the public comment period.

PUBLIC MEETING: June 5, 2001

The Navy will hold a public meeting to explain the Proposed Remedial Action Plan and the information presented in the *Final Streamlined Remedial Investigation/Feasibility Study Report for Site 7 - Former Beryllium Landfill*. Verbal and written comments will also be accepted at this meeting. The meeting will be held in:

Building 300
Allegany Ballistics Laboratory
210 State Route 956
Rocket Center West Virginia
5:30 p.m.

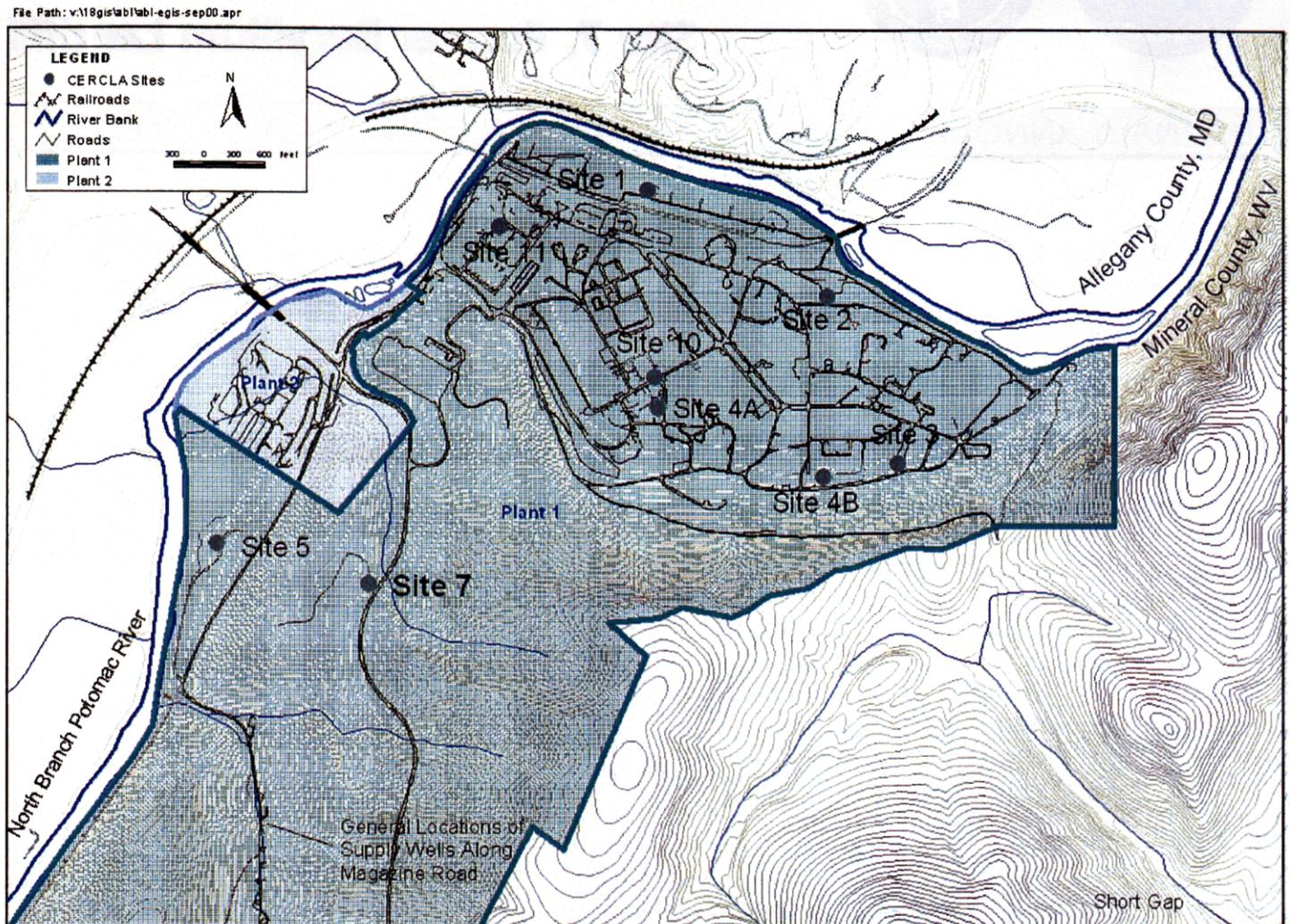
For more information about Site 7, see the Administrative Record at the following locations:

LaVale Public Library
(301) 729-0855

Fort Ashby Public Library
(304) 298-4493

summarizes information that can be found in greater detail in the *Final Streamlined Remedial Investigation/Feasibility Study Report for Site 7 - Former Beryllium Landfill at Allegany Ballistics Laboratory, Rocket Center, West Virginia (CH2M HILL, May 2001)*

FIGURE 1



and other documents contained in the Administrative Record file for ABL. The Navy, EPA, and WVDEP encourage the public to review these documents to better understand Site 7 and the Superfund activities that have been conducted there.

This Proposed Plan provides an overview of the status of Site 7 and is divided into the following sections:

1. Site Description and Background;
2. Site Characteristics;
3. Scope and Role of the Proposed Remedial Action Plan;
4. Summary of Site Risks;
5. Evaluation of Remedial Alternatives;
6. Preferred Alternative; and
7. Community Participation.

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Site Description and Background

ABL is a research, development, and production facility located in Rocket Center, West Virginia, in the northern part of Mineral County. The facility is situated along a reach of the North Branch Potomac River, separating West Virginia and Maryland (Figure 1). Since 1943, ABL has been used for primarily research, development, production, and testing of solid propellants and motors for ammunition, rockets, and armaments.

The facility consists of two plants. Plant 1, owned by the Navy and operated by Alliant Missile Products Company (AMPC), occupies approximately 1,577 acres, of which only about 400

acres are within the developed floodplain of the North Branch Potomac River. The remaining acreage, including that containing Site 7, is primarily forested and mountainous. Plant 2, a 57-acre facility adjacent to Plant 1, is owned and operated by AMPC. In May 1994, Plant 1 was listed on the National Priority List (NPL). Plant 2 is not on the NPL.

Site 7, the Former Beryllium Landfill, is located in the undeveloped southwest portion of ABL Plant 1 and east of Site 5 (Figure 1). It is situated southwest of the main administration building of Plant 1 (Building 300), and adjacent to State Route 956.

In the 1960s, research was conducted at ABL on propellants containing beryllium, which required disposal facilities for both beryllium-containing propellants and elemental beryllium. ABL obtained a permit from the West Virginia Department of Natural Resources (WVDNR) in 1967 to establish a landfill for disposal of beryllium containing non-explosive waste. Under this permit, a small (10 feet by 15 feet by 6 feet deep) earthen pit was excavated down to the limestone bedrock adjacent to State Route 956 and used intermittently to dispose of primarily beryllium containing wastes until the late 1960s, when beryllium research ceased at ABL.

The landfill permit was withdrawn at the facility's request in 1979 by the State of West Virginia. Between 1983 and 1992 the landfill was part of several investigations to determine the presence of contamination and potential risk of exposure to people, plants, and animals.

Soil and waste contained in the Site 7 beryllium landfill were excavated and disposed of by the Navy in 1994 as an action under the CERCLA process. The excavation activities began at one end of the landfill and continued across the landfill until soil visibly free of containers and debris was encountered. Some of the debris removed from the landfill was found to contain small vials containing beryllium. Because beryllium is a listed hazardous waste, the debris containing the vials was disposed of offsite at a permitted hazardous waste facility in accordance with applicable laws and regulations. The remaining debris was characterized and found not to constitute a listed or characteristic hazardous

What is Beryllium?

Beryllium is a naturally occurring element found in the environment. In the 1960s, beryllium was considered for experimental use at ABL in place of aluminum as a fuel to increase the performance of propellants. However, the increased performance was lost because beryllium burns inefficiently. Therefore, testing with beryllium at ABL was discontinued in late-1960s.

waste; therefore, it was disposed of at a permitted solid waste landfill.

When the excavation activities were complete, soil samples were collected from the walls and the bottom of the excavation to ensure remaining soil did not pose a risk to people. The initial soil sample from the bottom of the excavation contained mercury at a level that was determined to be a potential risk to workers that may come in contact with the soil. Therefore, an additional 5 cubic yards of soil were removed from the bottom of the excavation. A second soil sample was collected from the bottom of the excavation and did not contain a level of mercury that posed an unacceptable risk to workers at the site. Based on this information, the excavation was backfilled with clean fill material.

With the information gathered during soil removal and other past activities conducted at Site 7, the Navy completed its evaluation of the existing conditions at Site 7, including an assessment of potential risks to people, plants, and animals from exposure to current levels of chemicals, namely metals, in soil and groundwater at the site. This evaluation included an assessment of the continual, long-term reliability of the soil removal action taken at the site.

Throughout the CERCLA process as applied to Site 7, the public was involved by way of Technical

Review Committee and subsequent Restoration Advisory Board/public meetings. In addition, a public notice was released during the non-time critical removal action for the site soliciting public involvement and comment.

1.1 Summary of Studies and Investigations

Several investigations were conducted at Site 7 between 1983 and 2000. Because beryllium is toxic, this site was investigated to determine the condition of the beryllium in the landfill and the potential for offsite movement of beryllium from the landfill area. A more detailed description of the investigations summarized below can be found in the *Final Streamlined Remedial Investigation/Feasibility Study Report for Site 7 - Former Beryllium Landfill at Allegany Ballistics Laboratory, Rocket Center, West Virginia* (CH2M HILL, May 2001) and the investigation-specific documents listed below.

Initial Assessment Study (IAS)

The first investigation at Site 7 was the IAS conducted in January 1983. The IAS included a preliminary evaluation of potentially contaminated sites at ABL, which were identified through records review, personnel interviews, and site visits. The IAS identified the beryllium landfill as an area where hazardous substances potentially existed and indicated that up to 2 pounds of beryllium were buried in the landfill. In addition, the IAS reported that less than 100 pounds of miscellaneous unidentified laboratory chemicals were disposed of in the landfill. The IAS concluded that there was a low potential for groundwater contamination resulting from downward movement of beryllium and other potentially hazardous chemicals because of the small amounts of waste disposed of in the landfill. The results of the IAS were documented in the *Initial Assessment Study of Allegany Ballistics Laboratory* (Environmental Science and Engineering, Inc., January 1983), which recommended that no further action (NFA) was necessary at Site 7.

Confirmation Study (CS) /Interim Remedial Investigation (Interim RI)

In 1984, the Navy decided that additional information was required to assess the potential risks at Site 7. Site 7 was therefore included in the CS, completed in August 1987, and documented in the *Interim Remedial Investigation for Allegany*

Ballistics Laboratory (Roy F. Weston, Inc., October 1989).

Test pits were excavated in the landfill during the CS and soil samples were collected from the walls of the excavations. Because the concentrations of beryllium detected were below a level that might pose a risk to people, the Interim RI report concluded that beryllium was not a concern in soil at Site 7. Mercury and silver were the only metals detected at concentrations above naturally occurring levels, but the concentrations of both did not pose an unacceptable risk to people.

Remedial Investigation (RI) and Subsequent Sampling Activities

Because only soil had been evaluated up to this point, a bedrock monitoring well (designated as 7GW01) was installed in the presumed direction of groundwater flow from the beryllium landfill in July 1992 as part of the RI conducted at ABL. The well was sampled on October 29, 1992, for volatile organic compounds (VOCs), explosives, and metals. These data showed that no VOCs or explosives were present in the groundwater at Site 7. Because a higher level of data evaluation is necessary for the CERCLA process, groundwater at Site 7 was re-sampled on October 18, 2000, for a range of organic chemicals, metals, and nitroglycerin.

Streamlined Remedial Investigation/Feasibility Study (RI/FS)

A streamlined RI/FS for Site 7 was undertaken to document all historical investigative and remedial activities at the site. The study also evaluated the nature and extent of contamination, the potential risks to people, plants, and animals from existing soil and groundwater, and the potential need for further remedial action. This was done by comparing the existing soil and groundwater data (post-soil removal activities) to federal levels established to be protective of people, plants, and animals. A summary of this evaluation is presented in Section 4. A more detailed discussion of the site data and potential remaining risks is provided in the *Final Streamlined Remedial Investigation/Feasibility Study Report for Site 7 - Former Beryllium Landfill at Allegany Ballistics Laboratory, Rocket Center, West Virginia* (CH2M HILL, May 2001).

2 Site Characteristics

Site 7 consists of a small open area surrounded by oak-hickory-pine forest on the western side of Knobly Mountain (Figure 2). The site is not currently used for any facility activities nor are there any buildings present at the site. Site 7 is at an elevation of approximately 920 feet above mean sea level, although the topography on the site itself is relatively level. The surrounding land use in the vicinity of Site 7 consists of undeveloped woodland, cropland, and a limestone quarry.

Bedrock at Site 7 is within several feet of the ground surface and is composed of primarily limestone. The soil above the limestone bedrock is a thin layer of clay and gravely clay, likely a combination of



Figure 2: Location of Site 7 - Prior to landfill contents removal (top photo) and today (bottom photo)

weathered bedrock and organic material from decaying vegetation.

Groundwater at the site is approximately 30 feet below the ground surface and likely moves westward through bedrock fractures and bedding partings toward the North Branch Potomac River, which is the predominant hydrologic feature in the vicinity of the site. Surface water runoff from Site 7 flows northward into an intermittent stream valley and then down Knobly Mountain toward the North Branch Potomac River.

3 Scope and Role of the Proposed Remedial Action Plan

This section of the Proposed Plan addresses the evaluation of the remedial alternative for Site 7, which is also identified as Operable Unit (OU) 7. It does not include or directly impact any other OUs and/or sites at the facility that fall under the CERCLA process.

Remedies have been implemented at three of the twelve top priority sites at ABL. At Site 7, the removal of all waste material in the landfill and associated contaminated soil reduced the potential risk to people, plants, and animals to an acceptable level. All other OUs and sites have been or are currently under individual investigations. They will be addressed in other PRAP documents.

4 Summary of Site Risks

This section examines the risks associated with the current condition of Site 7, following the removal of landfill contents. A more detailed discussion of risk at Site 7 and the risk evaluation process can be found in the *Final Streamlined Remedial Investigation/Feasibility Study Report for Site 7 - Former Beryllium Landfill at Allegany Ballistics Laboratory, Rocket Center, West Virginia* (CH2M HILL, May 2001).

4.1 Ecological Evaluation

For there to be a risk to plants and animals at the site, there must be a source of contamination and a pathway for exposure of the contaminants to the plants and animals. Based upon the ecological evaluation, no complete exposure pathways for

WHAT IS ECOLOGICAL RISK ASSESSMENT?

An ecological risk assessment evaluates the potential adverse effects that human activities have on the plants and animals that make up ecosystems. The ecological risk assessment process follows a phased approach similar to that of the human health risk assessment. The ecological risk assessment process provides a way to develop, organize, and present scientific information so that it is relevant to environmental decisions. The risk assessment results provide a basis for comparing different management options enabling decision makers and the public to make informed decisions about the management of ecological resources.

Ecological risk assessment includes three steps: problem formulation, analysis, and risk characterization.

The problem formulation includes:

- (1) compiling and reviewing existing information on the site habitat, plants, and animals that are present;*
- (2) evaluating how the plants and animals may be exposed;*
- (3) identifying and evaluating area(s) where site-related chemicals may be found;*
- (4) evaluating potential movement of chemicals in the environment;*
- (5) evaluating routes of exposure (for example, ingestion);*
- (6) identifying receptors (in other words, plants and animals that may be exposed);*
- (7) identifying exposure media (in other words, soil, air, water); and*
- (8) developing how the risk will be measured for all complete pathways (in other words, where plants and/or animals can be exposed to chemicals).*

The second step of the ecological risk assessment is risk analysis, where potential exposures to plants and animals are estimated and the concentrations of chemicals at which an effect may occur are evaluated.

The third step in the ecological risk assessment is risk characterization where all of the information identified in the first two steps are used to estimate the risk to plants and animals. Also included is an evaluation of the uncertainties (in other words, potential degree of error) that are associated with the predicted risk evaluation and their effects on the conclusions that have been assessed.

plants and animals currently exist at the site. The area of soil contamination was small and isolated, the waste was removed, and the excavation was backfilled with clean soil.

4.2 Human Health Evaluation

4.2.1 Soil

All of the chemicals detected in soil collected following removal of landfill contents at Site 7 were evaluated to determine the potential risk to people (both cancer and non-cancer related). No pesticides or PCBs were detected in the soil samples. Three organic chemicals (2-butanone, methylene chloride, and bis(2-ethylhexyl)phthalate) were detected in the soil samples, but were below all regulatory risk screening levels.

Aluminum, arsenic, iron, and manganese were the only metals detected in the soil samples at concentrations exceeding regulatory screening levels for potential future residents (both child and adult) at the current location of Site 7. It should be noted that beryllium was not detected in the soil samples at levels above any regulatory screening levels. However, concentrations of aluminum, arsenic, and iron are consistent with naturally occurring soil concentrations found at ABL. Therefore, the non-cancer risk associated with exposure to only manganese in soil was calculated to be 0.73, which is below the EPA's risk screening value of 1.0 (see "What is Risk and How is It Calculated" text box). Of these metals, arsenic is the only one associated with a cancer risk. The cancer-risk from exposure to arsenic in soil was calculated to be 6.9 in 1 million people, which is at the lower end of the EPA's acceptable risk range of 1 in 10 thousand to 1 in 1 million (see "What is Risk and How is It Calculated" text box).

Antimony, arsenic, chromium, manganese, and mercury were detected in soil samples at concentrations that could move to groundwater and produce harmful levels. However, the concentrations of antimony, arsenic, and chromium are consistent with naturally occurring soil concentrations found at ABL. The potential risk from movement of manganese and mercury to groundwater was calculated to be 1.4, which is above the EPA's risk screening value of 1.0 (see "What is Risk and How is It Calculated" text box).

However, the actual concentrations of manganese and mercury detected in groundwater at the site are below regulatory levels, as discussed below in Section 4.2.2.

4.2.2 Groundwater

All of the chemicals detected in groundwater at Site 7 were evaluated to determine the potential risk to people (both cancer and non-cancer related). The evaluation indicated that there is no cancer-risk associated with drinking groundwater at Site 7. Four organic chemicals (acetone, 2-butanone, 1,2-dibromo-3-chloropropane, and di-n-butylphthalate) were detected in the groundwater, but were below all regulatory risk screening levels.

In addition, none of the groundwater chemical concentrations exceeded the primary EPA Maximum Contaminant Levels (MCLs). The MCLs are values established to be protective of people that take into account both risk associated with drinking the water and the cost associated with producing and delivering the water to the public.

Antimony, chromium, iron, and manganese were the only metals detected in the groundwater at concentrations exceeding regulatory screening levels for potential future residents (both child and adult) at the current location of Site 7. The non-cancer risk associated with exposure to these four chemicals in groundwater was calculated to be 0.99, which is below the EPA's risk screening value of 1.0 (see "What is Risk and How is It Calculated" text box).

Lead was detected in groundwater at a concentration of 30 micrograms per liter ($\mu\text{g}/\text{l}$), which is above the EPA Safe Drinking Water Act (SDWA) action level of 15 $\mu\text{g}/\text{l}$. The potential risk associated with lead in groundwater was evaluated using an EPA-approved risk model that predicts potential blood-lead levels in children, those people most at risk. Based on potential exposure to the lead level in Site 7 groundwater, the calculated average blood-lead level would be 5.7 micrograms per deciliter ($\mu\text{g}/\text{dl}$), which is below the EPA's health screening level of 10 $\mu\text{g}/\text{dl}$.

4.3 Risk Summary

To summarize, the potential risk to people, plants, and animals from existing chemicals in Site 7 soil and groundwater is low. An evaluation of soil data

WHAT IS HUMAN HEALTH RISK AND HOW IS IT CALCULATED?

A human health risk assessment estimates the "baseline risk." This is an estimate of the likelihood of health problems occurring if no cleanup action is taken at a site. To estimate the baseline risk at the site, the Navy performs the following four-step process.

Step 1: Analyze Contamination

Step 2: Estimate Exposure

Step 3: Assess Potential Health Dangers

Step 4: Characterize Site Risk

In Step 1, the Navy looks at the concentrations of chemicals found at a site as well as past scientific studies on the effects these chemicals have had on people (or animals, when human studies are unavailable). Comparisons between site-specific concentrations and concentrations reported in past studies help the Navy determine which chemicals are most likely to pose the greatest threat to human health.

In Step 2, the Navy considers the different ways that people might be exposed to the chemicals identified in Step 1 like ingestion, inhalation, contact, etc.; the concentrations that people might be exposed to; and the potential frequency (how often) and length of exposure. Using this information, the Navy determines the highest level of human exposure that could reasonably be expected to occur.

In Step 3, the Navy uses the information from Step 2 combined with information on the toxicity of each chemical to assess potential health risks. The Navy considers two types of risk: (1) cancer risk and (2) non-cancer risk. The likelihood of any kind of cancer resulting from a contaminated site is generally expressed as an upper bound probability; for example, a "1 in 10,000 chance." In other words, for every 10,000 people that could be exposed, one cancer occurrence may result from exposure to site chemicals. A cancer occurrence means that one more person could get cancer that normally would be expected to from all other causes. For non-cancer health effects, the Navy calculates a "hazard index." The key concept here is that a risk screening value (measured usually as a hazard index of less than 1) exists below which non-cancer health effects are no longer predicted.

In Step 4, the Navy, EPA, and WVDEP determine whether site risks are high enough to cause health problems for people at or near the site. The results of the three previous steps are combined, evaluated, and summarized. The potential risks are summed from the individual chemicals and exposure pathways and a total site risk is characterized.

indicates that only the manganese levels potentially could produce harmful levels in groundwater at Site 7. However, recent groundwater data indicate the concentrations of manganese, as well as the concentrations of other chemicals, are below regulatory risk screening levels and/or are comparable to naturally occurring levels. Waste excavation and disposal has provided the most reliable long-term protection by removing the source of contamination from the site to a level protective of people, plants, and animals. Source removal prohibits further potential exposure to contamination and eliminates the need for further contaminant controls. The risk evaluation findings are summarized in Table 1.

Table 1 - Site 7 Risk Assessment Results

<i>Medium</i>	<i>Human Health Risks</i>	<i>Ecological Risks</i>
Soil	Acceptable	Acceptable
Groundwater	Acceptable	No Pathway

5 Preferred Alternative

Based upon the results of previous investigations and the removal action conducted at Site 7, the Navy, EPA, and WVDEP have determined that the site no longer poses an unacceptable risk to people, plants, and animals and, therefore, no alternative other than the NFA alternative was evaluated. Under this alternative, no additional remedial actions will be performed at the site and, therefore, no remedy schedule, capital cost estimation, or annual operation and maintenance are necessary.

The Navy, with the support of EPA and WVDEP, is proposing NFA as the preferred alternative for Site 7. This proposed alternative is protective of people, plants, and animals. The Navy may modify the preferred alternative or select another remedial alternative if public comments or additional data indicate that another alternative will yield a more appropriate result.

6 Community Participation

The Navy, EPA, and WVDEP are soliciting the public to review and comment on the proposed

NFA alternative presented in this PRAP. If any significant new information or public comments are received during the public comment period, the Navy, in consultation with the EPA and WVDEP, may modify the preferred alternative outlined in this PRAP or select another alternative.

The public is encouraged to review and comment on the alternative proposed in this PRAP. The 45-day public comment period will begin on May 18, 2001 and extend to July 2, 2001. Notice of the public comment period is in local newspapers and at ABL.

The public comment period will include a public meeting during which the Navy, EPA, and WVDEP will provide an overview of the site, previous investigation findings, and removal action activities; answer questions; and accept public comments on the PRAP.

INFORMATION AVAILABLE TO THE PUBLIC

- The Community Relations Plan
- Restoration Advisory Board meeting minutes
- Fact Sheets
- Final technical reports, including the StreamlinedRI/FS

at the following Administrative Record locations:

LaVale Public Library
(304) 298-4493

Fort Ashby Public Library
(301) 729-0855

For more information on the Installation Restoration Program activities or to be added to the mailing list, please contact:

Mr. John Peters
Public Affairs Specialist
(757) 322-8005
(757) 322-8187 fax.
e-mail: petersje@efdlant.navfac.navy.mil

The public meeting will be held at the time and location shown below:

***Tuesday, June 5, 2001 at 5:30 PM
Building 300 Conference Room
Allegany Ballistics Laboratory
210 State Route 956
Rocket Center, West Virginia***

Comments on the PRAP will be summarized and responses provided in the responsiveness summary section of the ROD for the site. To submit written comments or obtain further information, please contact one of the following representatives:

Mr. Dominic O'Connor/Remedial Project Manager,
Code EV23 DO
Naval Facilities Engineering Command
Atlantic Division
1510 Gilbert Street
Norfolk, Virginia 23511-2699
Phone: (757) 322-4795 / FAX: (757) 322-4805
oconnordt@efdlant.navfac.navy.mil

Mr. Bruce Beach/Code 3HS13
Hazardous Site Cleanup Division
Federal Facilities Branch
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029
Phone: (215) 814-3364 / FAX: (215) 814-3051
beach.bruce@epa.gov

Mr. Tom Bass
West Virginia Department of Environmental
Protection
Office of Environmental Remediation
1356 Hansford Street
Charleston, West Virginia 25301
Phone: (304) 558-2508 / FAX: (304) 558-3998
Tbass@mail.dep.state.wv.us

Written comments must be postmarked no later than the last day of the public comment period, which is July 2, 2001.

The Administrative Record contains all the information that was used to develop this proposed final action for Site 7. It also provides important background, site investigation, and landfill removal

information in more detail than is presented in this PRAP.

The Administrative Record is available for public viewing at the following locations:

LaVale Public Library
815 National Highway
LaVale, Maryland 21502
(301) 729-0855
Fax (301) 729-3490

Hours:

Monday through Thursday: 9:00 a.m. to 9:00 p.m.
Friday and Saturday: 9:00 a.m. to 5:00 p.m.

Fort Ashby Public Library
PO Box 74 Lincoln Street
Fort Ashby, West Virginia 26719
(304) 298-4493

Hours:

Monday through Friday: 12:00 noon to 5:00 p.m.
plus
Tuesday through Thursday: 6:00 p.m. to 8:00 p.m.
Saturday: 9:00 a.m. to 12:00 noon and
1:00 p.m. to 4:00 p.m.

PUBLIC MEETING

***Date: June 5, 2001
Time: 5:30 p.m.
Place: Building 300 at
Allegany Ballistics
Laboratory***

***Comments must be postmarked
no later than July 2, 2001.***

Glossary of Terms

ABL - Allegany Ballistics Laboratory

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act (1980), also known as the Superfund Law, as amended by the Superfund Amendments and Reauthorization Act of 1986. CERCLA provides the authority and procedures for responding to releases of hazardous substances, pollutants, and contaminants from inactive hazardous waste disposal sites.

CS - Confirmation Study - The second of two phases of environmental investigation under the Navy Assessment and Control of Installation Pollutants program. If the IAS recommends further action at a particular site, then a CS is conducted. Samples are collected during the CS to confirm the presence and determine the nature of contamination at the site.

EPA - Environmental Protection Agency

Groundwater - Subsurface water that flows in soil and geologic formations that are fully saturated.

IAS - Initial Assessment Study - The first of two phases of environmental investigation under the Navy Assessment and Control of Installation Pollutants program. The IAS is a preliminary evaluation of the facility that (1) identifies areas potentially contaminated by previous handling, storage, and disposal of hazardous substances; (2) assesses the potential effects of the contamination on human health and animals; and (3) recommends remedial measures appropriate for the contaminated areas. The second phase of the Navy Assessment and Control of Installation Pollutants program, the Confirmation Study, is completed if further action is required.

Interim RI - Interim Remedial Investigation - Similar to a Remedial Investigation, but carried out prior to listing on the National Priority List. It is an in-depth study designed to gather data needed to determine the nature and extent of contamination at a site, establish site cleanup criteria, identify preliminary alternatives for remedial action, and support technical and cost analyses of alternatives.

MCL - EPA Maximum Contaminant Level - regulatory criterion used to evaluate risk in groundwater.

Navy - Department of the Navy

NCP - National Contingency Plan

NFA - No Further Action

NPL - National Priorities List. Nationwide list of sites, established by Congress under CERCLA and compiled by EPA under CERCLA regulations, that identifies sites for priority investigation and remedial action.

OU - Operable Unit - Term for each of a number of separate activities undertaken as part of a Superfund site cleanup. For example, cleanup of soil and groundwater could be two separate operable units.

PCB - Polychlorinated Biphenyl

PRAP - Proposed Remedial Action Plan - A public document describing the remedial alternatives at a site and the regulators' preferred cleanup remedy that is used to solicit community participation in the decision making process.

Public Comment Period - The time allowed for the members of a community to express views and concerns regarding an action proposed to be taken by EPA, such as a rulemaking, permit, or Superfund remedy selection.

Removal Action - Short-term immediate actions taken to address releases of contamination that require quick and timely response.

RI - Remedial Investigation - An in-depth study designed to gather data needed to determine the nature and extent of contamination at a Superfund site, establish site cleanup criteria, identify preliminary alternatives for remedial action, and support technical and cost analyses of alternatives.

ROD - Record of Decision - A public decision document that establishes which cleanup alternative(s) will be used at a National Priorities List site.

SDWA - Safe Drinking Water Act

VOC - Volatile Organic Compound

WVDEP - West Virginia Department of Environmental Protection

WVDNR - West Virginia Department of Natural Resources

Please print or type your comments here

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TO:
Mr. Dominic O'Connor/Remedial Project Manager, Code EV23 DO
Naval Facilities Engineering Command, Atlantic Division
Lafayette Annex, Bldg. A
1510 Gilbert Street
Norfolk, Virginia 23511-2699

TAPE HERE