RECORD OF DECISION

AREA OF CONCERN 4A –
AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM

NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

BRAC PMO NORTHEAST
U.S. NAVY

DECEMBER 2007

Record of Decision
Naval Air Station South Weymouth
Table of Contents

SECTION **PAGE**

PART 1—DECLARATION 1
I. SITE NAME AND LOCATION 1
II. STATEMENT OF BASIS AND PURPOSE 1
III. DESCRIPTION OF THE SELECTED DECISION 1
IV. STATUTORY DETERMINATIONS 2
V. AUTHORIZING SIGNATURES 2

PART 2—DECISION SUMMARY 1
I. SITE NAME, LOCATION, AND DESCRIPTION 1
II. SITE HISTORY AND ENFORCEMENT ACTIVITIES 1
A. Site History 1
B. History of Site Investigations 1
C. History of CERCLA Enforcement Activities 4
III. COMMUNITY PARTICIPATION 4
IV. SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION 6
V. SITE CHARACTERISTICS 6
VI. CURRENT AND POTENTIAL FUTURE SITE RESOURCE USES 7
VII. SUMMARY OF POTENTIAL SITE RISKS 7
A. Human Health Risk Assessment 8
B. Ecological Risk Assessment 10
C. Summary 12
VIII. DOCUMENTATION OF NO SIGNIFICANT CHANGES 12
IX. STATE ROLE 12

PART 3—RESPONSIVENESS SUMMARY 1
I. STAKEHOLDER ISSUES AND NAVY RESPONSES 1
II. TECHNICAL AND LEGAL ISSUES 1
III. COMMENT RESPONSES 1

TABLES

NUMBER **PAGE**

2-1 Summary of Operable Units and Areas of Concern 13
2-2 Summary of Human Health Risk Assessment Results 17
2-3 Summary of Ecological Risk Assessment Measurement and Assessment Endpoints – Surface Soil and Sediment 18

FIGURES

NUMBER **PAGE**

2-1 Site Location Map 20
2-2 Site Map 21
2-3 Sample Location Map 22
2-4 Human Health Conceptual Site Model 23
2-5 Ecological Conceptual Site Model 24

APPENDICES

A Massachusetts Department of Environmental Protection Letter of Concurrence
B References
C Glossary
D Administrative Record Index
E E.1 Transcript of Public Hearing on the Proposed Plan for AOC 4A
E.2 Public Comments on the Proposed Plan for AOC 4A

PART 1—DECLARATION

I. SITE NAME AND LOCATION

Naval Air Station (NAS) South Weymouth
1134 Main Street
Weymouth, Massachusetts 02190
NPL No. MA2170022022
Area of Concern (AOC) 4A – Air Traffic Control (ATC) Area Abandoned Septic System

II. STATEMENT OF BASIS AND PURPOSE

This decision document presents the No Action decision for AOC 4A (the ATC Area Abandoned Septic System) at the former NAS South Weymouth, Weymouth, Massachusetts. The decision was made in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC § 9601 *et seq.*, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300 *et seq.*, as amended. The regulatory program performed under the context of these combined laws and regulations is commonly referred to as "Superfund."

This decision is based on the Administrative Record, which has been developed in accordance with Section 113(k) of CERCLA, and which is available for review at the Navy's Caretaker Site Office (CSO) located at NAS South Weymouth, Weymouth, Massachusetts. Local to the site, public information repositories are also maintained at the Tufts Library in Weymouth, Massachusetts; the Abington Public Library in Abington, Massachusetts; the Hingham Public Library in Hingham, Massachusetts; and the Rockland Memorial Library in Rockland, Massachusetts. The Administrative Record Index (Appendix D) identifies each of the items comprising the Administrative Record upon which the selection of this decision is based.

This decision had been selected by the U.S. Navy and the U.S. Environmental Protection Agency (EPA). The Massachusetts Department of Environmental Protection (MassDEP) statement on the selected remedy is presented in Appendix A.

III. DESCRIPTION OF THE SELECTED DECISION

This Record of Decision (ROD) sets forth the No Action decision for AOC 4A (the ATC Area Abandoned Septic System), at NAS South Weymouth.

The No Action decision for AOC 4A is based on the results of the Navy's streamlined human health and ecological risk assessments completed for the site. In 2004, the Navy used the site sampling data to assess the potential risks to human and ecological receptors associated with exposure to the site's environmental media (soil, sediment, and groundwater). Based on the results of the risk assessments, the Navy has determined that the site does not pose an unacceptable risk to human health or the environment.

AOC 4A is 1 of 18 AOCs currently on record at NAS South Weymouth. These AOCs have been addressed independently from the rest of NAS South Weymouth and, therefore, the Navy can proceed with closure of these sites as soon as they have met the requirements of the Superfund process. The signing of this No Action ROD by the Navy and EPA Region 1 authorizes the completion of the Superfund process for AOC 4A. The No Action decision for AOC 4A is not expected to have any impact on the strategy or progress for the rest of the environmental investigations at NAS South Weymouth.

IV. STATUTORY DETERMINATIONS

No cleanup actions are necessary at AOCs 4A under CERCLA to ensure protection of human health and the environment. Under CERCLA, if no unacceptable risks to human health or the environment are identified, then no further actions, investigations, or monitoring is required. No hazardous substances remain on-site above levels that allow for unlimited use and unrestricted exposure; therefore, five-year reviews will not be required.

V. AUTHORIZING SIGNATURES

This ROD documents that No Action is necessary to ensure protection of human health and the environment for AOC 4A (the ATC Area Abandoned Septic System) at the former NAS South Weymouth. This remedy was selected by the Navy and EPA. MassDEP's statement on the selected remedy is presented in Appendix A.

Concur and recommended for immediate implementation:

U.S. Department of the Navy

By: _____ Date: 12/19/07

David A. Barney
BRAC Environmental Coordinator
Naval Air Station South Weymouth
U.S. Navy

U.S. Environmental Protection Agency, Region 1

By: _____ Date: 1/16/08

James Owens
Director, Office of Site Remediation and Restoration
Region 1 – New England
U.S. EPA

PART 2—DECISION SUMMARY

I. SITE NAME, LOCATION, AND DESCRIPTION

The former NAS South Weymouth (the Base) was placed on the National Priorities List (NPL) in May 1994 by EPA pursuant to CERCLA. During its operational period (1940s to 1996), NAS South Weymouth was owned by the U.S. Government, and was operated by the Department of the Navy. The Base is located primarily in the Town of Weymouth, Massachusetts (Figure 2-1). Portions of NAS South Weymouth extend into the adjacent Towns of Abington and Rockland, Massachusetts.

The Department of the Navy is the lead agency, and EPA is the lead regulatory agency, for CERCLA activities at NAS South Weymouth. The U.S. Department of Defense is the sole source of cleanup funding for the property. There are several operable units within the NAS South Weymouth NPL site (MA2170022022) that the Navy is addressing under CERCLA. This ROD pertains to Area of Concern (AOC) 4A (the Air Traffic Control (ATC) Area Abandoned Septic System).

AOC 4A, the ATC Area Abandoned Septic System (the Site), is located in the west-central (Abington) portion of the Base, west of the former control tower (Figure 2-1). The area consists of a dirt road running roughly north-south behind (west of) the tower, and a grassy area with a square-shaped, topographically elevated area in front of a wooded wetland (Figure 2-2). The elevated area is believed to be the former septic system (e.g., leaching field area). AOC 4A encompasses the septic system and the adjacent wetland areas (approximately 0.6 acres in total). A basketball court is located to the northwest of the control tower.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A. Site History

NAS South Weymouth was constructed during the 1940s as an aircraft facility for dirigibles used to patrol the North Atlantic during World War II. The facility was closed at the end of the war and reopened in 1953 as a Naval Air Station for aviation training. NAS South Weymouth was in continuous use from that time as a Naval Air Reserve training facility until it was operationally closed on September 30, 1996 as part of the Base Realignment and Closure (BRAC) program. Administrative closure was completed in September 1997.

The control tower was built in the early 1950s and was in service from the time of its construction until autumn of 1996. Records reviewed as part of the Navy's Phase I Environmental Baseline Survey (EBS) (Stone & Webster, 1996) indicated that, when the Base was active, the control tower had its own dedicated septic system located to the west of the tower. This septic system and leach field were constructed in 1982, replacing an old cesspool, now backfilled, as shown on Figure 2-2.

B. History of Site Investigations

The following sections provide an overview of the completed investigations at AOC 4A. Full details regarding the environmental investigations are available for review in the Draft Removal Action Report for Septic Systems (Foster Wheeler, 1999), the EBS Draft Decision Document (Stone & Webster, 2001), the EBS Phase II Field Report (Stone & Webster, 2002a), the Project Memorandum, re: Results of Arsenic Sampling (Foster Wheeler, 2002), the Streamlined Human Health Risk Assessment (HHRA) (EA, 2004), and the Streamlined Ecological Risk Assessment (ERA) (Stone & Webster, 2004). See also the Appendix B list of references. These investigations are summarized below in chronological order.

Phase I EBS - 1995

In 1995, the Navy performed a Phase I EBS (Stone & Webster, 1996) to assess the environmental condition of the Base property. Areas that were believed to require further investigation for potential contamination were designated as Review Item Areas (RIAs). The Phase I EBS identified RIA 4 to be associated with the potential disposal of hazardous materials (solvents) used for the maintenance of electronic equipment in the control tower. There also was a concern that if hazardous materials had been disposed in control tower drains, then such materials would have entered the septic system and leached into the surrounding subsurface soil. In addition, hazardous materials may also have leached into the shallow groundwater at this location.

Groundwater Flow Direction Study - 1998

During October and November 1998, in preparation for the EBS Phase II Work Plan, the Navy installed piezometers at various sites across the Base to provide a better understanding of groundwater flow directions (Stone & Webster, 2000b). The study included the installation of three piezometers at RIA 4. The results confirmed that groundwater in this area flows northwest to southeast, likely due to the influence of French Stream. The information was used to refine the proposed locations of the groundwater monitoring wells installed at RIA 4 for the Phase II EBS (MW02-003 and MW02-004).

Phase II EBS - 1998

The Navy conducted a Phase II EBS investigation to evaluate the RIAs identified during the Phase I EBS. The RIAs were investigated as separate sites during the Phase II EBS and each RIA was sampled for potential contaminants. The results of the Phase II EBS investigation, including the comparisons of the analytical results to screening benchmarks and background values, were presented in Decision Documents for each RIA. During the Phase II EBS, RIA 4 was divided into RIA 4A (Abandoned Septic System) and RIA 4B (Alleged Waste Disposal) and these areas were addressed separately. Phase II EBS results for RIA 4A were included in the *Draft Phase II EBS Decision Document for RIA 4A* (Stone & Webster, 2001). Sampling at RIA 4A was conducted during December 1998.

Phase II EBS field investigations at RIA 4A focused on potential leaching of material from the septic system at the ATC tower. Sampling was conducted to address concerns associated with the potential disposal through the septic system of hazardous substances or hazardous materials (solvents) which were used for the maintenance of electronic equipment. Sampling included the collection and analysis of subsurface soil from the septic system leaching field and groundwater upgradient and downgradient of the leaching field. Surface soil samples were not collected because the environmental concern under evaluation was the possible leakage of septic system contents to the subsurface. Samples were analyzed for a wide range of compounds because the nature of the materials potentially disposed of was unknown.

Comparisons of the analytical results to screening benchmarks indicated that the detected analyte concentrations were representative of background concentrations at NAS South Weymouth. However, because an ecological receptor was overlooked during initial sampling activities, further investigation under the EBS program was recommended.

Septic System Inspection - 1999

In June 1999, the Navy conducted an inspection and source sampling of the septic system at RIA 4A (Foster Wheeler, 1999). This septic system failed the inspection relative to various failure conditions which exist under Massachusetts Title 5 regulations (310 CMR 15.000). The tank contents (solids and liquid) were sampled and analyzed. Various metals, benzene, chlorobenzene, and some polycyclic aromatic hydrocarbons (PAHs) were detected. Concentrations above Massachusetts Contingency Plan

(MCP) RCS-1/RCGW-1 criteria were documented. The septic system was not decommissioned due to the possibility of the building being put back into use.

Phase II EBS Investigation - 2001

In August 2001, the Navy conducted an additional EBS investigation at RIA 4A to evaluate whether potential ecological receptors in the wooded wetland west of the Site, which had not been considered during the 1998 sampling, could be impacted. Sampling included four sediment samples, one subsurface soil sample collected from a soil boring that was completed as a groundwater monitoring well, and a groundwater sample from that new well. The new well and the existing piezometers were also gauged to further evaluate overburden groundwater flow direction at the Site. The sampling results are presented in the Field Report (Stone & Webster, 2002a).

Volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and pesticides were not detected in soil or groundwater samples. Polychlorinated biphenyls (PCBs) were not detected in any of the media sampled. In sediment, one VOC (acetone in three samples) and two pesticides (4,4'-DDE, and 4,4'-DDT in four samples) exceeded ecological benchmark screening levels. Various SVOCs exceeded ecological screening benchmarks in one sediment sample. Various inorganic analytes exceeded applicable benchmark screening levels in soil (arsenic, iron, and thallium), groundwater (iron and manganese), and sediment (arsenic, iron, lead, mercury). The detected manganese concentration in groundwater exceeded its benchmark but was within background levels. Of particular note, arsenic in the hydric soil (sediment) of the wetland area was identified as a potential concern based on comparisons of sample concentrations (maximum of 43.6 J mg/kg) to background levels and the ecological screening benchmark.

At NAS South Weymouth, RIAs with sampling data that exceed either risk benchmarks or background values for more than one hazardous substance were designated as AOCs to be addressed under CERCLA. Accordingly, RIA 4A became AOC 4A. AOC 4A is 1 of 18 CERCLA AOCs currently identified at NAS South Weymouth. The Navy conducted either streamlined risk assessments[1] or removal actions at the various AOCs at NAS South Weymouth. At AOC 4A, the Navy conducted streamlined human health and ecological risk assessments.

Supplemental Investigation, 2002-2003

In 2002 and 2003, the Navy collected additional surface soil samples to address data gaps and to complete the HHRA and the ERA.

In April 2002, the Navy collected five additional screening soil samples from a depth of 0-6 inches in the vicinity of the 2001 sample location with the highest arsenic detection to verify the previous result (43.6 mg/kg). A 16-ft square grid was placed around the sample location, samples were collected from the center and four corners of the grid, and analyzed for arsenic. Arsenic was detected at lower concentrations in the 2002 samples (maximum of 20 mg/kg) than in the 2001 sample. Because the 2001 result was not duplicated, it was not included in the risk assessments. The five samples collected in 2002 were included in the risk assessments and were documented in a project memorandum (Foster Wheeler, 2002).

In May 2003, the Navy collected 16 additional sediment and soil samples at 12 locations because the 2002 results were not consistent with the 2001 results. Twelve samples were collected from the 0-6 inch

[1] Under conditions agreed to by the Navy, EPA, and MassDEP for the streamlined risk assessments, the only receptors that are required to be evaluated are potential future residential adults and children for exposures to media of concern, on the basis that these are the most sensitive potential receptors at the site. However, the Navy elected to evaluate additional potential receptors on a site-by-site basis based on realistic future use of the site.

interval and four samples were collected 2 feet below ground surface. Soil samples were analyzed for PAHs, pesticides, PCBs, and Target Analyte List (TAL) metals and sediment samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals. The maximum arsenic concentration detected in the May 2003 samples was 18 mg/kg. The sample results were documented in the HHRA and ERA reports (EA, 2004 and Stone & Webster, 2004, respectively).

Streamlined HHRA and ERA

In 2004, the Navy used the sample results from the Phase II EBS and supplemental investigations to calculate potential risks to human and ecological receptors at AOC 4A (EA, 2004 and Stone & Webster 2004, respectively). The results of the risk assessments are presented in Section VII, Summary of Potential Site Risks. The findings indicated that there were no unacceptable risks to human health or the environment at AOC 4A.

In November 2004, the Navy installed an additional temporary well downgradient of the former cesspool to address a Massachusetts Department of Environmental Protection (MassDEP) comment on the HHRA and ERA reports. A groundwater sample (GW02-401) was collected and analyzed for VOCs. The results were non-detect (except for trace concentrations of toluene and m,p-xylene which did not exceed human health groundwater benchmarks and were attributed to carryover contamination from a previously run sample at the laboratory since the compounds were also detected in an associated trip blank sample).

Cesspool Test Pit – 2004

On February 11, 2004, the Navy excavated a test pit in the area of the former cesspool to verify that the cesspool had been backfilled. Preliminary measurements from the existing ATC facility were used to estimate the location of the cesspool. It was determined that the former cesspool had been backfilled with sand.

C. History of CERCLA Enforcement Activities

In May 1994, NAS South Weymouth was listed on EPA's NPL, indicating that the NAS South Weymouth property was a priority for environmental investigation and cleanup. The Navy has conducted environmental studies and activities at NAS South Weymouth in accordance with CERCLA and the NCP. Based on the designation of NAS South Weymouth property as an NPL site, a Federal Facility Agreement was executed by the Navy and EPA, which became effective in April 2000. This agreement establishes the Navy as the lead agency for the investigation and cleanup of designated sites within NAS South Weymouth property, with EPA providing oversight. MassDEP is not a party to the Federal Facility Agreement. In accordance with CERCLA and the NCP, MassDEP has participated in ongoing discussions and strategy sessions, and provides oversight and guidance through their review of the Navy's Installation Restoration (IR) Program documents.

III. COMMUNITY PARTICIPATION

The Navy has worked to keep the community involved throughout the investigation process. The Navy has informed the community and other interested parties of NAS South Weymouth environmental activities through informational meetings, fact sheets, press releases, public meetings, regular contact with local officials, and a public website. Also, the Navy meets on a regular basis to discuss the status and progress of the environmental programs with the Restoration Advisory Board (RAB), which is comprised of community leaders, government agency representatives, and local citizens who gather to discuss the progress of the environmental programs at NAS South Weymouth. Representatives from the Navy, EPA Region 1, MassDEP, and local government have attended the public meetings and hearings. The following is a brief chronology of public outreach efforts for AOC 4A:

- In September 1995, the Navy initiated a series of public meetings, at which the RAB process was explained and community members were asked to join the RAB. A sufficient number of volunteers assembled, and RAB meetings began in March 1996. Since that time, RAB meetings generally have been held on a monthly or bi-monthly basis to keep the RAB and local community informed of the progress of the environmental investigations. The Navy has prepared and distributed minutes from each of the RAB meetings. Meeting minutes are available to the public on the Navy's public website for environmental activities at the former NAS South Weymouth (http://nas-southweymouth.navy-env.com/).

- In March 1996, the EPA awarded the North and South Rivers Watershed Association (NSRWA) a Technical Advisory Grant (TAG). This TAG had allowed the NSRWA to hire a Technical Advisor to review documents, attend meetings, and prepare evaluation reports. The Technical Advisor attended most RAB meetings and technical project meetings when the TAG was active.

- In July 1998, the Navy released a community relations plan that outlined a program to address community concerns and keep citizens informed about and involved in remedial activities.

- In May 1999, the DoD gave the RAB for NAS South Weymouth a Technical Assistance for Public Participation (TAPP) grant. This grant had allowed the RAB to obtain technical assistance from experts in the environmental field to help them understand the environmental cleanup programs at the Base.

- The Navy has distributed technical documents directly to the RAB members, including the EBS Decision Documents and field reports. Technical documents are also available at the information repositories listed below.

- The Navy provided periodic updates on the status of the Site during various public RAB meetings.

- The Navy published a legal notice of the Proposed Plan for AOC 4A in the Patriot Ledger (July 2, 2007), the Abington-Rockland Mariner (July 6, 2007), and the Weymouth News (July 4, 2007). The notice announced the public comment period and the meeting date for the public information session and public hearing. An announcement about the meeting was posted at the Weymouth Town Hall. The Navy distributed copies of the Proposed Plan to a mailing list of nearly 400 community members. In addition, the Navy made the Proposed Plan available to the public at several established Information Repositories (listed below) and the Navy's public website for environmental activities at the former NAS South Weymouth (http://nas-southweymouth.navy-env.com/).

- From July 2, 2007 to August 1, 2007, the Navy offered the Proposed Plan for public comment, in accordance with the requirements of the NCP and the CERCLA program at NAS South Weymouth. One written comment was received regarding AOC 4A during the public comment period (Appendix E.2).

- On July 19, 2007, the Navy held an informational meeting to present the Navy's Proposed Plan to the public. At this meeting, representatives from the Navy discussed the Proposed Plan and answered questions from the public. In addition, the Navy held a public hearing to accept oral comments on the Proposed Plan. A transcript of comments received at the public hearing is included as Appendix E.1.

- The Navy has provided responses to comments received at the public hearing and during the comment period in the Responsiveness Summary, which is included in Part 3 of this ROD.

In addition, the Navy has provided an index of the Administrative Record available for public review at several locations. Information repositories have been established at the Tufts Library in Weymouth, Massachusetts; the Abington Public Library in Abington, Massachusetts; the Hingham Public Library in Hingham, Massachusetts; the Rockland Memorial Library in Rockland, Massachusetts; and the Navy's CSO at NAS South Weymouth, Weymouth, Massachusetts. The Administrative Record Index is included as Appendix D to this ROD.

IV. SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION

In addition to several CERCLA Operable Units, AOC 4A is 1 of 18 CERCLA AOCs identified at NAS South Weymouth (Table 2-1). In general, the Operable Units and AOCs at NAS South Weymouth progress through the CERCLA cleanup process independent of one another.

AOC 4A was originally identified in the Phase I EBS Report as RIA 4A. An RIA is an area identified during the EBS that was believed to require further evaluation due to the potential for contamination. If environmental impacts were found from sampling results, then the Navy addressed an RIA under the appropriate program. At NAS South Weymouth, the Navy designated EBS RIAs as CERCLA AOCs when one or more CERCLA hazardous substances were present in excess of human health or ecological risk benchmarks and background values. The Navy then conducted either streamlined risk assessments or removal actions at the various AOCs. At AOC 4A, the Navy conducted streamlined risk assessments that identified no unacceptable risks to human health or the environment.

The ROD for AOC 4A is one component of the Superfund program at NAS South Weymouth. AOC 4A has proceeded on an independent track from the other Operable Units and AOCs to enable the Navy to expedite site closure and property transfer. The signing of this ROD by the Navy and EPA Region 1 indicates the completion of the Superfund process for AOC 4A. No additional actions or investigations of AOC 4A are required under CERCLA. The selected No Action decision for AOC 4A is not expected to have an impact on the strategy or progress for the remaining environmental investigation sites at NAS South Weymouth. Additional details on the strategy and schedule for the remediation of the other Operable Units and a schedule for AOC activities at NAS South Weymouth are available in the Navy's Site Management Plan (Tetra Tech NUS, 2007).

V. SITE CHARACTERISTICS

AOC 4A, the ATC Area Abandoned Septic System, is located in the west-central (Abington) portion of the Base, west of the former control tower (Figure 2-1). The area consists of a dirt road running roughly north-south behind the tower, and a grassy area with a square-shaped, topographically elevated area in front of a wooded wetland (Figure 2-2). The elevated area is believed to be the former septic system (e.g., leaching field area). AOC 4A encompasses the septic system and the adjacent wetland areas (approximately 0.6 acres in total). A basketball court is located to the northwest of the control tower.

Currently, the AOC 4A area remains unused. The area topography is relatively flat, created by filling, with a slight slope downward towards French Stream to the east. The area includes streams, grassland, and forested areas providing habitat for several terrestrial and aquatic species. Wildlife, including deer, coyote, and hawks, have been observed in this area.

The Phase I EBS identified RIA 4 to be associated with the potential disposal of hazardous materials (solvents) used for the maintenance of electronic equipment in the control tower. There also was a concern that if hazardous materials had been disposed in control tower drains, then such materials would have entered the septic system and leached into the surrounding subsurface soil. In addition, hazardous materials may also have leached into the shallow groundwater at this location.

During the Phase II EBS, RIA 4 was divided into RIA 4A (Abandoned Septic System) and RIA 4B (Alleged Waste Disposal) and these areas were addressed separately. During Phase II EBS activities from 1998 to 2003, the Navy collected soil and groundwater samples from the ATC area as well as sediment samples from a wooded wetland area located behind (west of) the tower. Sample locations are shown in Figure 2-3. Samples were analyzed for a wide range of potential contaminants, including VOCs, SVOCs, pesticides, PCBs, and metals. Due to exceedances of EBS benchmarks, RIA 4A was designated as AOC 4A and the Navy conducted additional sampling events in 2002 and 2003 to address data gaps and complete risk assessments.

The Conceptual Site Models (CSMs) for the human health and ecological risk assessments as well as the results of the risk assessments are presented in Section VII, Summary of Potential Site Risks. The findings of the Navy's Streamlined HHRA and Streamlined ERA from 2004 indicated that there are no unacceptable risks to human health or the environment at AOC 4A.

VI. CURRENT AND POTENTIAL FUTURE SITE RESOURCE USES

NAS South Weymouth was operationally closed on September 30, 1996, and was administratively closed on September 30, 1997. As such, historical operations conducted at the Base are no longer occurring. The Base is located within a residential/light commercial area.

Under current use of the former NAS South Weymouth, there are no regular activities occurring at AOC 4A and, thus, there is limited potential for current worker exposure. Human activity is limited to possible brush clearing or grass cutting during summer months.

The anticipated future use of the AOC 4A property is based on the zoning prescribed in the *Zoning and Land Use By-Laws for the Naval Air Station South Weymouth* (SSTTDC, 2005a), which has been approved by the Towns of Weymouth, Abington, and Rockland. AOC 4A is zoned as open space in the approved reuse plan. The open space zoning is intended for the preservation of large, contiguous wetland areas and open space for park land, active and passive recreation, reservations, community gardens, rivers and streams, and similar uses. The open space zoning district may also encompass wetland resource areas, open space, and recreational areas where there are important public health, safety, and welfare interests in watershed and flood potential protection, preservation of wildlife habitat, and conservation of recreational land for resident use and enjoyment (SSTTDC, 2005a). No residential use is permitted under the open space zoning.

Groundwater at AOC 4A is not within a state-mapped, potentially productive aquifer zone, interim wellhead protection area (IWHPA), or Zone II area. Therefore, groundwater at AOC 4A is not considered to be part of a Potential Drinking Water Source Area.

VII. SUMMARY OF POTENTIAL SITE RISKS

Streamlined risk assessments were performed to estimate the probability and magnitude of potential adverse human health and environmental (ecological) effects from exposure to the Site assuming no remedial action was taken. Should unacceptable risks be determined, then these assessments would provide the basis for taking action and would identify the contaminants and exposure pathways that need

to be addressed by the remedial action. Based on the lack of unacceptable risks at AOC 4A, remedial action is not necessary as discussed below in the streamlined human health and ecological risk assessment summaries.

At AOC 4A, the Navy performed streamlined risk assessments using the data collected from environmental investigations at the Site. Soil samples collected in 2003, sediment samples from 2001 and 2003, and groundwater samples from 2001 were used to calculate the risks to human and ecological receptors.

A. Human Health Risk Assessment

A Streamlined HHRA was completed (EA, 2004) to estimate the probability and magnitude of potential adverse human health effects from exposure to chemicals of potential concern (COPCs) associated with surface soils, subsurface soils, sediment, and groundwater at AOC 4A, assuming no remedial action was taken.

The Streamlined HHRA was conducted in accordance with the Final Streamlined Human Health Risk Assessment Work Plan (EA, 2001) and was designed to be consistent with the Installation Restoration (IR) Program Phase II Remedial Investigation (RI) Work Plan. EPA Region I Risk Updates (USEPA, 1994, 1995, 1996, 1999) were consulted to ensure consistency in approach across all South Weymouth sites. The Streamlined HHRA was completed using methodologies that are consistent with CERCLA and MCP guidance. The methodology and exposure assumptions used were based on the 1999 Phase II RI Work Plan for NAS South Weymouth (ENSR, 1999). The results of the HHRA were used to determine that the risks calculated for receptors at the Site did not exceed EPA's benchmarks for acceptable cancer or non-cancer risks at AOC 4A.

The HHRA, which supports the No Action decision, followed a 4-step process: (1) contaminant identification that identified those hazardous substances which, given the specifics of the Site, were of potential concern; (2) exposure assessment that identified actual or potential exposure pathways, characterized the potentially exposed populations, and determined the extent of possible exposure; (3) toxicity assessment that considered the types and magnitude of adverse health effects associated with exposure to hazardous substances; and (4) risk characterization that integrated the three earlier steps to summarize the potential and actual risks posed by hazardous substances at the Site, including carcinogenic and non-carcinogenic risks.

COPCs were determined in the screening assessment portion of the HHRA (step one of the process described above) based on toxicity, concentration, and comparison to background concentrations. As a conservative measure, EPA Region IX Preliminary Remediation Goals (PRGs) for residential soil were used for the screening analysis for soil and sediment. EPA Region IX PRGs for residential tap water were used for the screening analysis for groundwater. Analytes present above screening levels, but below background levels were eliminated as COPCs. The results of this two-step screening are shown in Tables 3-1 through 3-4 of the Streamlined HHRA report (EA, 2004). The following COPCs were identified in the HHRA (maximum detected concentrations are shown in parentheses): surface soil – antimony (3.65 mg/kg), arsenic (6.9 mg/kg), manganese (180 mg/kg); subsurface soil – arsenic (3 mg/kg), thallium (1.6 mg/kg); and sediment – dibenz(a,h)anthracene (0.075 mg/kg), arsenic (18 mg/kg), thallium (1.6 mg/kg), vanadium (60 mg/kg). Human health risks were calculated for exposures to COPCs identified in surface soils, subsurface soils, and sediment at the Site. No COPCs were identified in groundwater.

<u>Conceptual Site Model</u>

Potential human health effects associated with COPCs were estimated quantitatively through the development of several hypothetical exposure pathways. These pathways were developed to reflect the potential for exposure to COPCs based on the present uses, potential future uses, and location of the

Site. A human health CSM which depicts these pathways is provided in Figure 2-4. Specific sources of COPCs, release mechanisms, exposure pathways to receptors, and site-specific factors have been presented in the Streamlined HHRA report (EA, 2004). The following receptor scenarios were evaluated: future residential (adult and child) and future recreational children. Exposure pathways included incidental ingestion of soil, dermal contact with soil, incidental ingestion of sediments, and dermal contact with sediments.

Specific pathways evaluated for each receptor are delineated in the CSM (Figure 2-4). These pathways were developed to reflect the potential for exposure to hazardous substances based on the present use, potential future uses, and location of the Site. Risks were calculated using reasonable maximum exposure (RME) assumptions. The RME scenario uses maximum values for exposure parameters. The RME scenario is intended to provide an upper bound of the possible risk. The RME is conceptually the "high end" exposure, above the 90th percentile of the population distribution, but not higher than the individual in the population with the highest exposure. Since the RME scenario represents a "reasonable worst case" exposure scenario, further discussions of risks in this ROD focus on the RME scenario. Table 3-5 of the Streamlined HHRA shows a summary of the COPCs and Exposure Point Concentrations (EPCs) used to evaluate the RME scenario. Exposure assumptions are presented in Tables 4-1 through 4-8 of the Streamlined HHRA.

Excess lifetime cancer risks were determined for each exposure pathway by multiplying a daily intake level with the chemical-specific cancer potency factor. Cancer potency factors have been developed by EPA from epidemiological or animal studies to reflect a conservative "upper bound" of the risk posed by potentially carcinogenic compounds. That is, true risk is unlikely to be greater than the risk predicted. The resulting risk estimates are expressed in scientific notation as a probability (e.g., 1×10^{-6} for 1/1,000,000) and indicate (using this example) that an average individual is not likely to have greater than a one in a million chance of developing cancer over a 70-year lifetime as a result of site-related exposure (as defined) to the compound at the stated concentration.

EPA's generally acceptable risk range for site-related exposure is from 10^{-4} to 10^{-6}. Current EPA practice considers carcinogenic risks to be additive when assessing exposure to a mixture of hazardous substances.

In assessing the potential for adverse health effects other than cancer, a hazard quotient is calculated by dividing the daily intake level by the reference dose or other suitable benchmark. Reference doses have been developed by EPA, and they represent a level to which an individual may be exposed that is not expected to result in any deleterious effect. Reference doses are derived from epidemiological or animal studies and incorporate uncertainty factors to ensure that adverse health effects will not occur. A hazard quotient less than 1.0 indicates that a receptor's dose of a single chemical is less than the reference dose, and that toxic non-carcinogenic effects from that chemical are unlikely. The hazard index (HI) is generated by adding the hazard quotients for all COPCs that affect the same target organ (e.g., liver) within or across all media to which a given individual may reasonably be exposed. An HI less than 1.0 indicates that toxic non-carcinogenic effects are not likely.

<u>Human Health Risk Assessment Results</u>

RME risk results for all receptors across all media of concern at the Site are presented in Tables 8-1 through 8-3 from the Streamlined HHRA report (EA, 2004). Table 2-2 summarizes the human health risk assessment results for potential future use corresponding to the RME scenario at AOC 4A. The results of the risk assessment conducted to evaluate potential human health risks resulting from potential exposures at AOC 4A indicate:

- Cumulative non-cancer HIs did not exceed EPA's risk target of HI = 1.0 for all receptors.

- Cumulative cancer risk estimates for all receptors were below or within EPA's "acceptable risk range" of 10^{-6} to 10^{-4}.

Since no unacceptable risks were identified from exposure to carcinogens or non-carcinogens in any medium at the Site, no remedial action is necessary for protection of human health at AOC 4A.

B. Ecological Risk Assessment

In addition to the Streamlined HHRA described above, the Navy also completed a Streamlined ERA for the Site (Stone & Webster, 2004). The ecological risk assessment evaluated potential risks to ecological receptors that may occur due to the presence of chemical stressors in environmental media. The ecological risk assessment was completed in three steps: (1) problem formulation, (2) risk analysis, and (3) risk characterization.

Problem Formulation

The Navy collected and evaluated information about the site conditions (e.g., type of habitat, and types of plant and animal species at the Site), the COPCs, and the potential exposure pathways. Ecological COPCs were based on exceedances of benchmark screening values. The following COPCs were identified in the Streamlined ERA (maximum detected concentrations are shown in parentheses):

- Sediment – acetone (0.018 mg/kg), benzo(b)fluoranthene (0.46 mg/kg), pyrene (0.57 mg/kg), dibenzo(a,h)anthracene (0.075 mg/kg), 4,4'-DDE (0.67 mg/kg), 4,4'-DDD (0.21 mg/kg), 4,4'-DDT (1.6 mg/kg), Aroclor-1260 (0.087 mg/kg), aluminum (7,900 mg/kg), arsenic (18 mg/kg), barium (65 mg/kg), beryllium (1.6 mg/kg), cobalt (8.8 mg/kg), iron (75,000 mg/kg), lead (140 mg/kg), mercury (0.4 mg/kg), thallium (1.6 mg/kg), and vanadium (60 mg/kg).

- Surface Soil – chrysene (0.36 mg/kg), benzo(a)anthracene (0.36 mg/kg), benzo(b)fluoranthene (0.47 mg/kg), benzo(g,h,i)perylene (0.21 mg/kg), benzo(k)fluoranthene (0.14 mg/kg), fluoranthene (0.68 mg/kg), indeno(1,2,3-cd)pyrene (0.25 mg/kg), pyrene (0.69 mg/kg), benzo(a)pyrene (0.38 mg/kg), dibenzo(a,h)anthracene (0.04 mg/kg), total PAHs (4.1 mg/kg), aluminum (6,500 mg/kg), chromium (9.4 mg/kg), iron (17,000 mg/kg), and vanadium (28 mg/kg).

The ecological receptor groups evaluated included terrestrial, wetland, and aquatic plants and animals. The following receptor groups were evaluated in the ERA:

- Terrestrial Plants
- Terrestrial Invertebrates
- Wetland Plants
- Aquatic Life (including invertebrates, plants, and amphibians)
- Terrestrial and Wetlands Vertebrate Wildlife

The ecological exposure pathways evaluated included direct exposure to surface soil for terrestrial plants, ingestion of surface soil by terrestrial invertebrates and terrestrial vertebrate wildlife, ingestion of food items that may contain accumulated chemicals from the soil by terrestrial vertebrate wildlife, direct exposure to sediment for wetland plants and aquatic life, ingestion of sediment and ingestion of food items that may contain accumulated chemicals from the sediment/hydric soil by wetland vertebrate wildlife. Ecological risks from exposure to subsurface soil were not assessed because ecological receptors are not expected to contact soil below 2 feet. The exposure pathways used in the ecological risk assessment are presented in Table 2-3. The short-tailed shrew, white-footed mouse, American robin,

Carolina wren, and the star-nosed mole were selected as representative wildlife species for evaluation at AOC 4A. The ecological risk assessment CSM is depicted in Figure 2-5.

Risk Analysis

Similar to the human health risk assessment, the Navy evaluated the possible harmful effects to the ecological receptors from the COPCs. The chemical concentrations to which the ecological receptors might be exposed were determined by sampling surface soil and sediment. These concentrations were used directly to determine risk to plants, invertebrates, and aquatic receptors. Potential exposure for terrestrial and wetland vertebrates was determined in food chain models based on the sampling data, and also included estimates of COPC exposure via ingestion of plant and animal tissue. These biota concentrations were extrapolated from concentrations in abiotic media using bioaccumulation factors cited in technical references.

Exposure estimates for wildlife were compared to literature toxicity values for birds or mammals to calculate a hazard quotient (HQ). An HQ greater than 1.0 indicates potential unacceptable risk.

Risk Characterization

The results from the risk analysis were used to determine the probability of adverse effects to the ecological receptors at the Site. The result of an ecological risk assessment is based on an interpretation of the overall weight of evidence collected from the Site.

The ecological risk screening step of the ERA indicated that EPCs exceeded soil screening benchmarks for plants and soil invertebrates, and HQs were greater than 1.0 for aquatic life and wetland and terrestrial vertebrate wildlife. Therefore, in accordance with Navy ERA policy, the risk was evaluated further in the ERA refinement step to determine which COPCs contribute to potentially unacceptable levels of ecological risk, and to eliminate from further consideration those COPCs that were retained because of the use of very conservative exposure scenarios. This allowed the ERA to focus on those chemicals that are considered risk drivers for the Site, if any remained after the refinement.

The risk characterization, or refinement step, showed that the average concentrations of chromium and vanadium in surface soil, and lead and vanadium in sediment exceeded terrestrial plant benchmark values. The average concentration of chromium in surface soil also exceeded terrestrial invertebrate benchmark values. However, because of the uncertainties associated with the soil benchmark values, as summarized in the ERA, further action at this AOC was not recommended based on these exceedances.

The average concentrations of 4,4'-DDE, 4,4'-DDT, Aroclor-1260, arsenic, iron, and lead in sediment exceeded the "low effect" screening value, but only 4,4'-DDE had an average concentration that exceeded the "severe effect" screening value. Based on various considerations, including the laboratory toxicity tests conducted for similar chemicals at other sites at the Base, the low HQs, the results of an analysis of metals' bioavailability, and the concentrations of pesticides being consistent with normal/legal application of pesticides, the potential risk to benthic receptors from chemicals in sediment was not considered significant.

For wetland vertebrate wildlife exposed to chemicals in sediment, HQs were greater than 1.0 for the mole (for cobalt and thallium) and wren (for 4,4'-DDT, 4,4'-DDE, iron, lead, and mercury). However, the potential risk to wetland vertebrate wildlife receptors was not considered significant based on the relatively low HQs, the concentrations of pesticides being consistent with normal/legal application of pesticides, and the conservative effect levels. For upland vertebrate wildlife exposed to chemicals in surface soil, HQs were greater than 1.0 for the robin (for iron). However, iron is a common earth element and is an essential nutrient; thus, the potential risk to upland vertebrate wildlife receptors from iron in surface soil was not considered to be significant.

In November 2004, to address a regulatory comment on the final ERA, the Navy returned to AOC 4A to install an additional monitoring well. A groundwater sample was collected and analyzed for VOCs. Two VOCs were detected in both the sample and the associated quality control trip blank at concentrations significantly below groundwater benchmark screening levels. Accordingly, the ERA was accepted by the regulatory agencies.

The results of the ERA indicated that the conditions at the Site pose no significant risks to ecological receptors. Refer to Section 4.0 of the Streamlined ERA (Stone & Webster, 2004) for a more comprehensive ecological risk summary.

C. Summary

In summary, the risk assessments did not identify potential human health or ecological risks (i.e., risks to the environment) associated with AOC 4A in excess of regulatory thresholds.

Based on the results of the Streamlined HHRA (EA, 2004) and ERA (Stone & Webster, 2004), the Navy and EPA have concluded that the AOC 4A site does not pose an unacceptable risk to human health or the environment; therefore, no additional investigations or remedial measures are required for AOC 4A. Soil, groundwater, and wetland conditions at AOC 4A are acceptable for unrestricted use (including residential). The current reuse plan (SSTTDC, 2005) indicates that the AOC 4A area is zoned for open space use and, therefore, would be available for some recreational use. No additional measures are required at AOC 4A to ensure protection of human health and the environment under the current or anticipated future uses.

VIII. DOCUMENTATION OF NO SIGNIFICANT CHANGES

The Navy issued a Proposed Plan for No Action for AOC 4A on July 2, 2007 for a 30-day public comment period. A public information session and a public hearing were held on July 19, 2007. The Navy reviewed the comments submitted during the public comment period and at the public hearing (Appendix E). As summarized in the Responsiveness Summary (Part 3), it was determined that no significant changes to the decision, as originally identified in the Proposed Plan, were necessary. Therefore, No Action for AOC 4A will be implemented.

IX. STATE ROLE

MassDEP has reviewed the relevant site information to determine if the selected remedy is in compliance with applicable or relevant and appropriate state environmental and facility siting laws and regulations. MassDEP's statement on the selected remedy in this ROD is presented in Appendix A.

TABLE 2-1

**SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 4A – AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 4**

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of September 2007
West Gate Landfill	IR Program Site 1	1	WGL	Disposal area used for a variety of construction and demolition debris, municipal, and other waste materials.	PA, SI, RI, FS, PRAP, and ROD (including construction of a soil cover over the landfill, long-term monitoring, and institutional controls) completed.
Rubble Disposal Area (Upland)	IR Program Site 2	2	RDA	Disposal area used for primarily building demolition debris.	PA, SI, RI, FS, PRAP, ROD, Remedial Design, Remedial Action including excavation and offsite disposal of PCB-impacted material, construction of a soil cap for the landfill material, long-term monitoring, and institutional controls is completed and long-term monitoring is underway.
Small Landfill	IR Program Site 3	3	SL	Disposal area used primarily for concrete, metal, and wood.	PA, SI, RI, PRAP, and ROD (No Action with groundwater monitoring) completed. Monitoring program completed. Closure under MA Solid Waste Regulations is underway.
Fire Fighting Training Area	IR Program Site 4	4	FFTA	Area designated for dispensing fuels for igniting and extinguishing fires.	PA, SI, and RI completed. No FS required. Completed PRAP and No Action ROD. Further assessment is being conducted in accordance with the MCP (310 CMR 40.0000).
Tile Leach Field	IR Program Site 5	5	TLF	Sand bed used to receive and distribute treated industrial wastewater.	PA, SI, and RI completed. No FS required. PRAP and No Action ROD completed.
Fuel Farm	IR Program Site 6	Not applicable (no longer CERCLA)	None	Tank farm and fuel dispensing area.	Site was transferred into the MCP program based on exhibiting only fuel-related issues.
Sewage Treatment Plant	IR Program Site 7	7	STP	Wastewater treatment plant used primarily for domestic wastewater.	PA, SI, RI, and FS completed. PRAP issued August 2007. Preparing ROD.
Abandoned Bladder Tank Fuel Storage Area	IR Program Site 8	8	ABTFSA	Area in which aboveground tanks temporarily were stored in support of aircraft refueling training operations.	Closed. PA, SI, and RI completed. No FS necessary. Completed No Action PRAP and ROD.
Rubble Disposal Area	IR Program Site 2	9	RDA	Steep sloping area adjacent to the RDA.	Combined with Operable Unit 2. No separate actions being performed.

TABLE 2-1

SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 4A – AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 4

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of September 2007
Building 81	IR Program Site 9	10	None	Release of solvents from former motor pool.	Former MCP site moved to CERCLA program. Conducted *in situ* chemical oxidation pilot study for groundwater. RI sampling completed. Preparing RI report.
Building 82	IR Program Site 10	11	None	Release of solvents from former aircraft hangar operations.	Former MCP site moved to CERCLA program. RI sampling completed. Preparing RI report.
Solvent Release Area	IR Program Site 11	12	SRA	Release of solvents from unidentified source.	Former EBS background location moved to the CERCLA Program. Preparing RI report.
Hangar 1 Main Bay	AOC Hangar 1	None	None	Main building floor drains	Various Removal Action/TCRAs completed. Preparing PRAP.
Suspected TACAN Disposal Area	AOC 3	None	None	Pile of rubble, soil, and metal debris containing PAHs and polychlorinated biphenyls (PCBs).	EBS Phase I, EBS Phase II. TCRA completed in Fall 2001 for the removal of 51 tons of soil and debris. PRAP completed. Completed No Further Action ROD.
ATC abandoned septic system	AOC 4A	None	None	Alleged liquid and solid waste disposal to a septic system. Arsenic in adjacent forested wetland hydric soil (sediment) was detected at levels above background.	EBS Phase I, EBS Phase II. Conducted streamlined HHRA and ERA. Completed No Action PRAP and ROD.
Wyoming St. Area – Building 70	AOC 8	None	None	Remnants of Building 70 demolition. Building housed radar electronics. Elevated PCB concentrations in soil.	EBS Phase I, EBS Phase II. TCRA, and CRAM completed. Completed No Further Action PRAP and ROD.
Supply Warehouse	AOC 13	None	None	Former railroad loading and unloading area. PAHs and pesticides in soil.	EBS Phase I, EBS Phase II. Conducted HHRA on soil. Removal action completed in September 2001 (8 tons of soil containing PAHs removed). PRAP completed. Completed No Further Action ROD.
Water Tower Staining	AOC 14	None	None	Staining between Hortensphere and Water Tower. Former drum storage area. Chromium, lead, and PAHs in soil.	EBS Phase I, Phase II. Conducted HHRA. No Action PRAP in progress.
Water Tower	AOC 15	None	None	Possible lead paint in soil (paint chips from sandblasting of tower).	EBS Phase I, EBS Phase II. June 2000 TCRA addressed lead in soil (280 tons of soil removed). Additional removal in March 2002 (104 tons of soil) addressed elevated lead reported from adjacent AOC 14 sample. PRAP completed. Completed No Further Action ROD.

TABLE 2-1

**SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 4A – AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 4**

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of September 2007
Pistol Range	AOC 35	None	None	Small arms ammunition rounds at historic Pistol Range.	EBS Phase I. EBS Phase II. Completed TCRA for lead in soil. Removed the de-armament embankment. Completed No Further Action PRAP and ROD.
Former Radio Transmitter Building Area	AOC 53	None	None	Alleged disposal area. Mainly PAHs and some inorganic constituents detected in sediment.	EBS Phase I, EBS Phase II, removal actions, and CRAM completed. Completed No Further Action PRAP and ROD.
Area North of Trotter Road - Antennae Field	AOC 55A	None	None	Seven antenna poles and associated copper cables.	Phase I EBS, Phase II EBS. Removal action in September 2002 removed antenna poles, platforms, grounding wires, and adjacent soil (840 tons of soil) to lower ecological risk. Completed No Further Action PRAP and ROD.
Area North of Trotter Road - Debris Area	AOC 55B	None	None	Solid waste disposal over a large, heavily wooded area.	Phase I EBS, Phase II EBS. Debris removal in 1999. Completed No Action PRAP and ROD.
Area North of Trotter Road - Pond Area	AOC 55C	None	None	Metallic debris in heavily wooded area and pond. Metals in soil and sediment.	Phase II EBS. Removal action may be conducted. Pending PRAP/ROD.
Area North of Trotter Road - Wetland Area	AOC 55D	None	None	Metals, PCBs exceed ecological benchmarks in surface water and sediment.	Formerly part of AOC 55B. Completed streamlined HHRA and ERA. Completed No Action PRAP and ROD.
East Mat Drainage Ditch	AOC 60	None	None	Discolored water and solid waste identified in drainage ditch.	Phase I EBS, Phase II EBS. Removal action conducted in December 2002 on the western portion of ditch as part of AOC 61 removal action. Further work underway.
TACAN Ditch	AOC 61	None	None	Discolored water in drainage ditch.	EBS Phase I, EBS Phase II. Completed Removal Action to address the TACAN Outfall drainage system, associated ditches, drainage swales, storm sewer lines, and catch basins in other areas at the Base. Cleaned the 60-in. storm drains and removed sediment in the TACAN ditch. Further work underway. Pending PRAP/ROD.

TABLE 2-1

SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 4A – AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 4

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of September 2007
Hazardous Waste Storage Area	AOC 83	None	None	RCRA Closure. PCB in subsurface soil.	EBS Phase I, EBS Phase II. Completed HHRA. No Action PRAP in progress.
East Street Gate Area	AOC 100	None	None	Debris disposal area. Various inorganics exceeded background and ecological benchmarks for surface soil.	EBS Phase I, EBS Phase II. Removal action completed in Fall 2001 (1,194 tons of soil and debris). PRAP completed. Completed No Further Action ROD.

NOTES:

PA = Preliminary Assessment
SI = Site Inspection
RI = Remedial Investigation (Phase I and II)
FS = Feasibility Study
PRAP = Proposed Remedial Action Plan (or Proposed Plan)
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
ROD = Record of Decision
MCP = Massachusetts Contingency Plan
TCRA = Time Critical Removal Action
AOC = Area of Concern.
CMR = Code of Massachusetts Regulations.
CRAM = Closeout Removal Action Memoranda
RCRA = Resource Conservation and Recovery Act
EBS = Environmental Baseline Survey
HHRA = Human Health Risk Assessment
ERA = Ecological Risk Assessment
LTM = Long-Term Monitoring
TACAN = Tactical Air Navigation

TABLE 2-2

**SUMMARY OF HUMAN HEALTH RISK ASSESSMENT RESULTS
AREA OF CONCERN 4A – AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS**

Scenario Evaluated	Media	Total Carcinogenic Risk (Statistical Chance)	Total Non-Carcinogenic Risk (Hazard Index)
FUTURE RESIDENT (a,b)			
Ingestion/Dermal Contact	Surface Soil	7.5E-06	0.13
	Sediment	2.7E-06	NA
Future Resident Total		1.0E-05	0.13
FUTURE RESIDENT (a,b)			
Ingestion/Dermal Contact	Subsurface Soil	3.7E-06	0.13
	Sediment	2.7E-06	NA
Future Resident Total		6.4E-06	0.13
FUTURE RECREATIONAL CHILD (aged 1-6)			
Ingestion/Dermal Contact	Surface Soil	4.7E-06	0.12
	Sediment	2.5E-06	NA
Future Recreational Child (1-6) Total		7.1E-06	0.12

SOURCE: Data from the Streamlined HHRA (EA, 2004).

NOTES:

The risk estimates shown are for Reasonable Maximum Exposure (RME) conditions.

(a) No risk results are presented for groundwater exposures (see Figure 2-4) because no analytes detected in groundwater were retained beyond the COPC screening step of the HHRA.
(b) Two evaluations of future residents are provided. The first includes surface soil and sediment exposures. The second presumes current subsurface soils are brought to the surface during development of the site; therefore, exposures to subsurface soils and sediment were considered.

TABLE 2-3

SUMMARY OF ECOLOGICAL RISK ASSESSMENT MEASUREMENT AND ASSESSMENT ENDPOINTS - SURFACE SOIL AND SEDIMENT
AREA OF CONCERN 4A – AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 2

Potential Receptor	Sensitive Environment (Yes/No)	Sensitive Species (Yes/No)[a]	Exposure Route Evaluated	Assessment Endpoints	Measurement Endpoints	Findings
Terrestrial and Wetland Vertebrate Wildlife	No	No	Ingestion of soil and sediment Ingestion of prey	Adverse effects on the maintenance of wildlife populations and communities within the habitats present at AOC 4A.	• Comparison of potential dietary exposures, calculated using concentrations of contaminants in the soil and sediment/hydric soil, to the results of laboratory toxicity studies in the literature that relate the dose of a compound in an oral exposure with an adverse response of a test population (avian or mammalian species).	Potential risk to wetland vertebrate wildlife and upland vertebrate wildlife receptors from COPCs in AOC 4A sediment/hydric soil and upland soil is not considered to be significant.
Terrestrial Invertebrates	No	No	Ingestion of soil	Adverse effects on the survival, growth, and reproduction of terrestrial invertebrate communities.	• Comparison of concentrations of contaminants in the soil to the literature-reported invertebrate screening values.	The average surface soil EPCs for chromium exceeded the available invertebrate screening values. Further action at this AOC is not recommended based solely on these benchmark exceedances.
Terrestrial Plants	No	No	Direct contact with soil	Adverse effects on the survival, growth, and reproduction of plant communities.	• Comparison of concentrations of contaminants in the soil to the literature-reported phytotoxicity screening values.	The average surface soil EPCs for chromium and vanadium exceeded the available phytotoxicity screening values. Further action at this AOC is not recommended based solely on these benchmark exceedances.
Wetland Plants	No	No	Direct contact with sediment	Adverse effects on the survival, growth, and reproduction of plant communities.	• Comparison of concentrations of contaminants in the sediment/hydric soil to the literature-reported phytotoxicity screening values in surface soil.	The average EPC for lead and vanadium exceeded the available screening values. Further action at this AOC is not recommended based solely on these benchmark exceedances.

TABLE 2-3

SUMMARY OF ECOLOGICAL RISK ASSESSMENT MEASUREMENT AND ASSESSMENT ENDPOINTS - SURFACE SOIL AND SEDIMENT
AREA OF CONCERN 4A – AIR TRAFFIC CONTROL AREA ABANDONED SEPTIC SYSTEM
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 2

Potential Receptor	Sensitive Environment (Yes/No)	Sensitive Species (Yes/No)[(a)]	Exposure Route Evaluated	Assessment Endpoints	Measurement Endpoints	Findings
Aquatic Life	No	No	Direct contact with sediment	Adverse effects on the survival and maintenance of a well-balanced benthic macroinvertebrate, amphibian, and plant community structure and function.	• Comparison of concentrations of contaminants in the sediment/hydric soil to the literature-reported low and severe effect sediment screening values. • Evaluation of simultaneously extracted metals (SEM)/acid volatile sulfides (AVS) relationships to indicate potential bioavailability of divalent cationic metals in sediment.	No significant potential ecological risk to benthic invertebrates due to exposure to sediment.

SOURCE: Data from the Streamlined ERA (Stone & Webster, 2004).

NOTES:

(a) One state-listed threatened species, the Northern Harrier, occurs at and in the vicinity of the site; however, it is unlikely that they would use the terrestrial upland in and around the site for nesting. Further, it is not anticipated that this site will pose unacceptable ecological risk to this species. Future site activities, however, should adhere to state-mandated avoidance, protection, and mitigation measures based on the potential presence of this species. Two state-listed "species of special concern," the spotted turtle and the eastern box turtle, are known to occur at the Naval Air Station South Weymouth; however, despite extensive surveys, neither species has been located at or in the vicinity of the AOC 4A.

COPC = Chemical of Potential Concern.

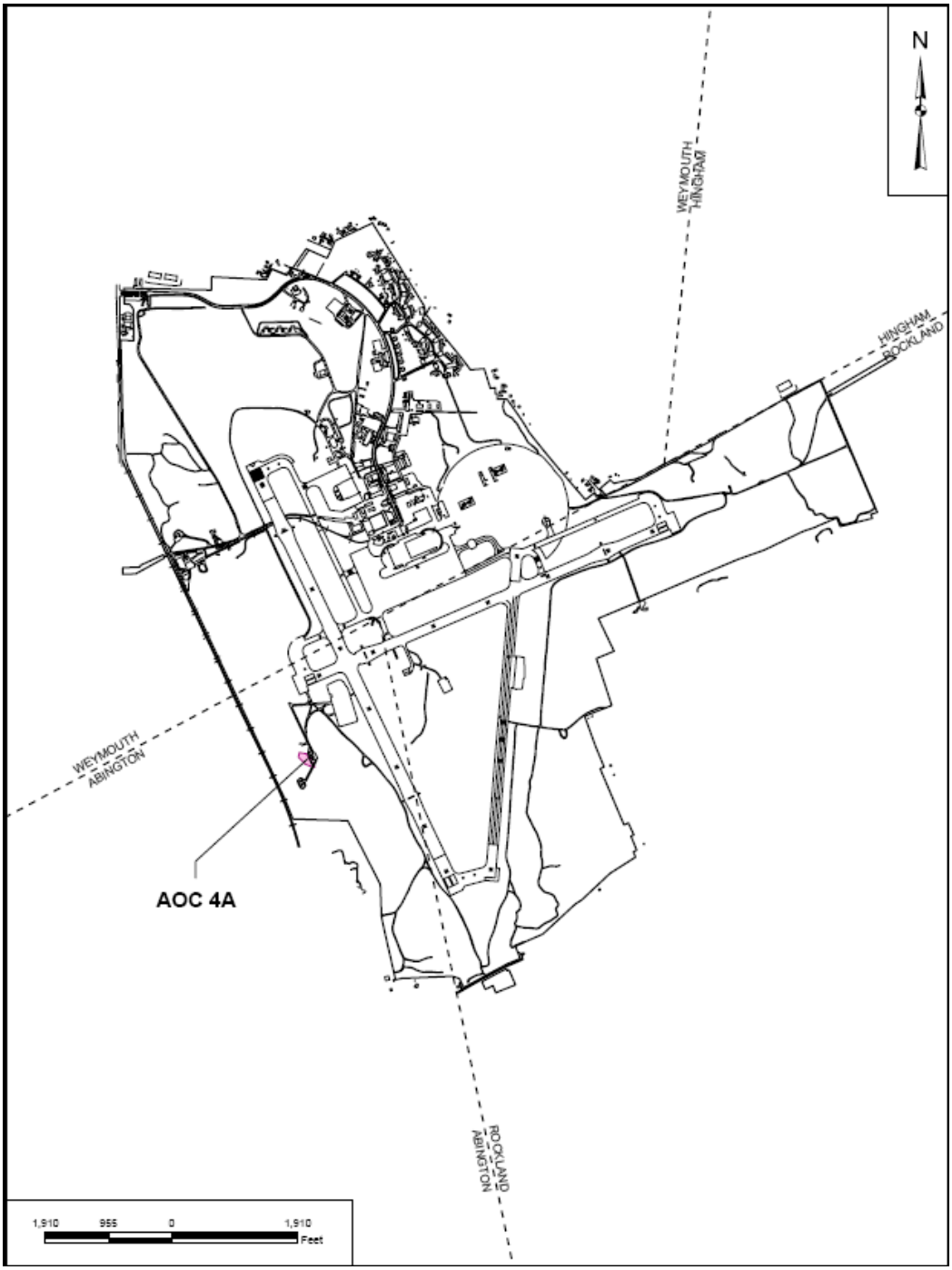


Figure 2-1 Site Location Map

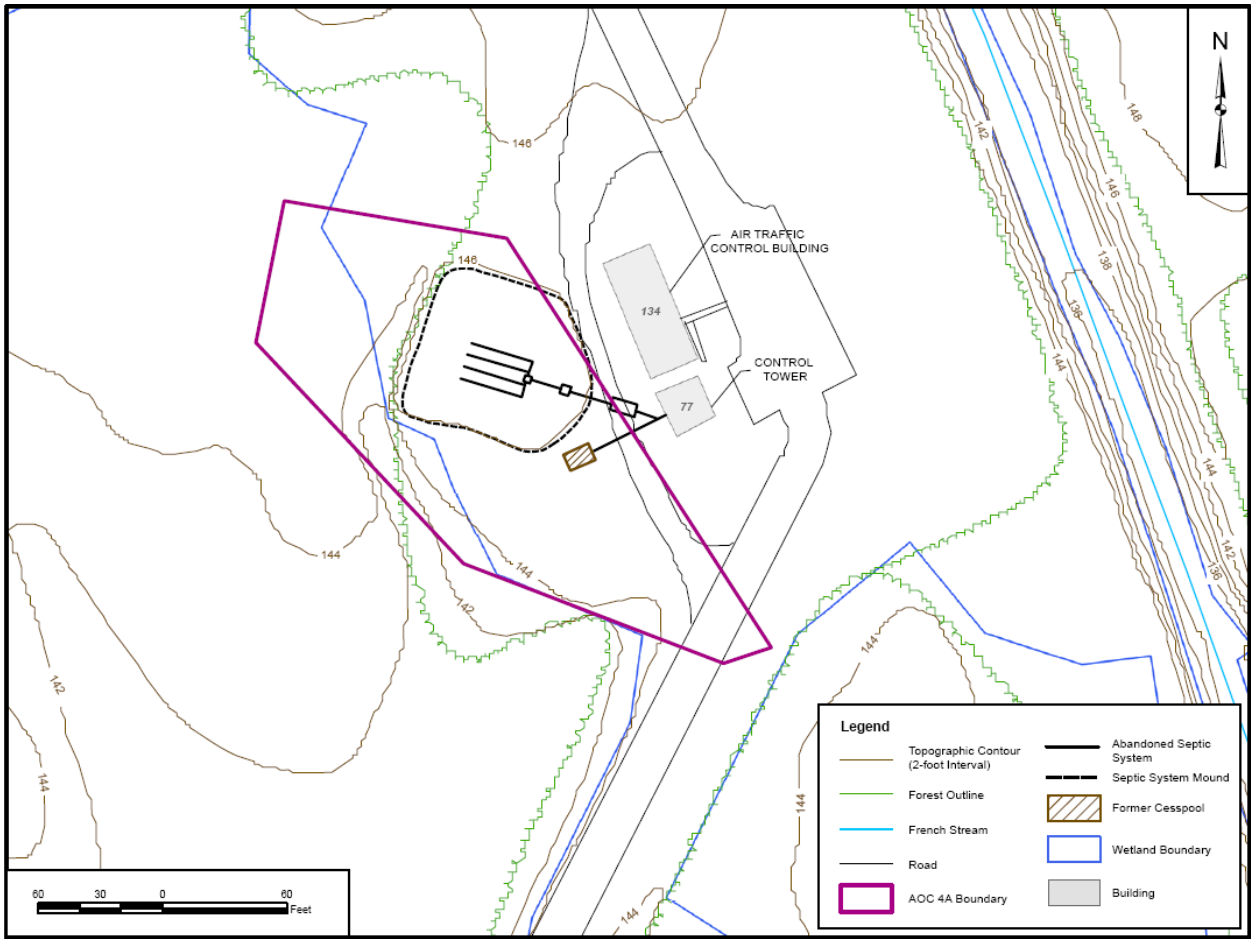


Figure 2-2 Site Map

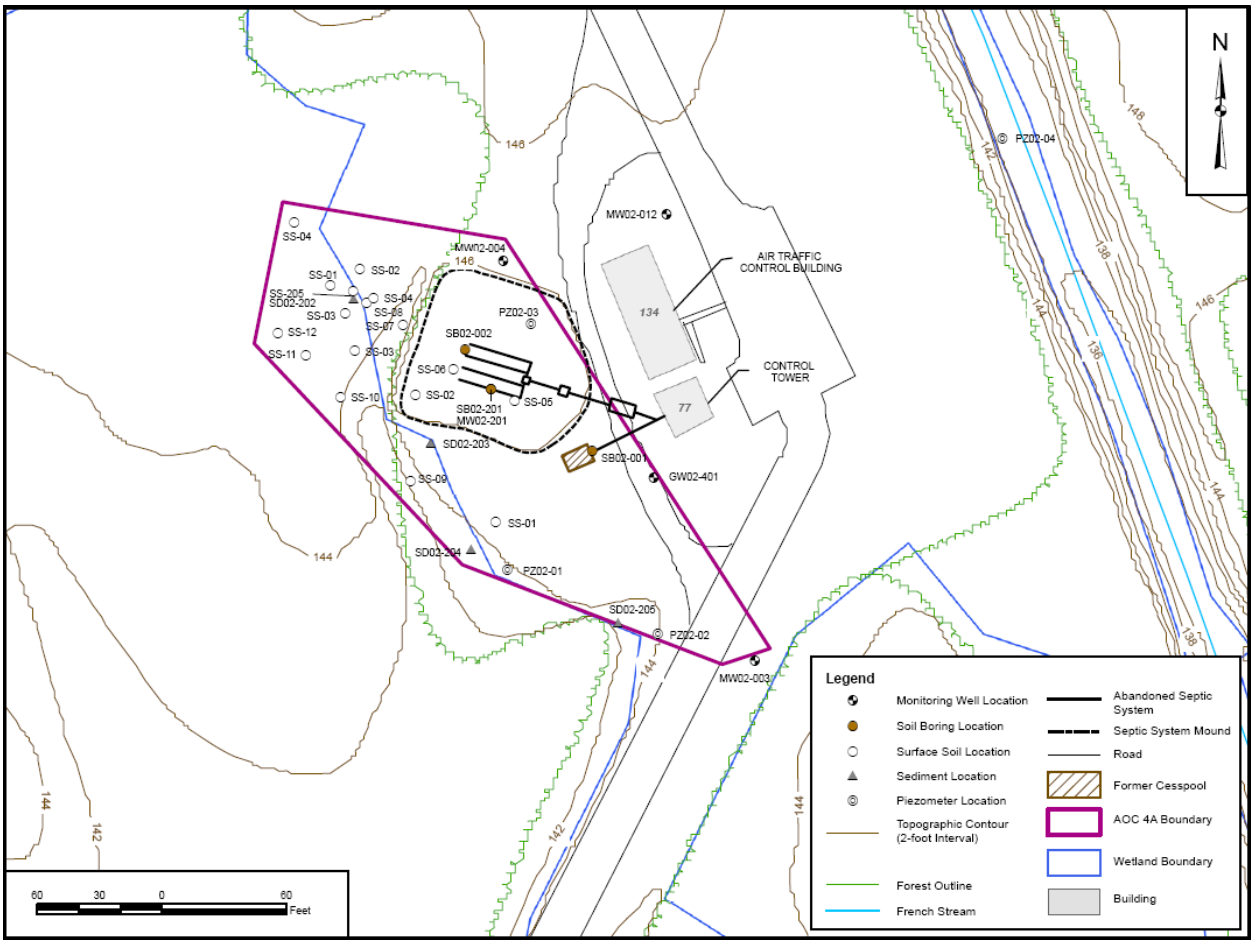
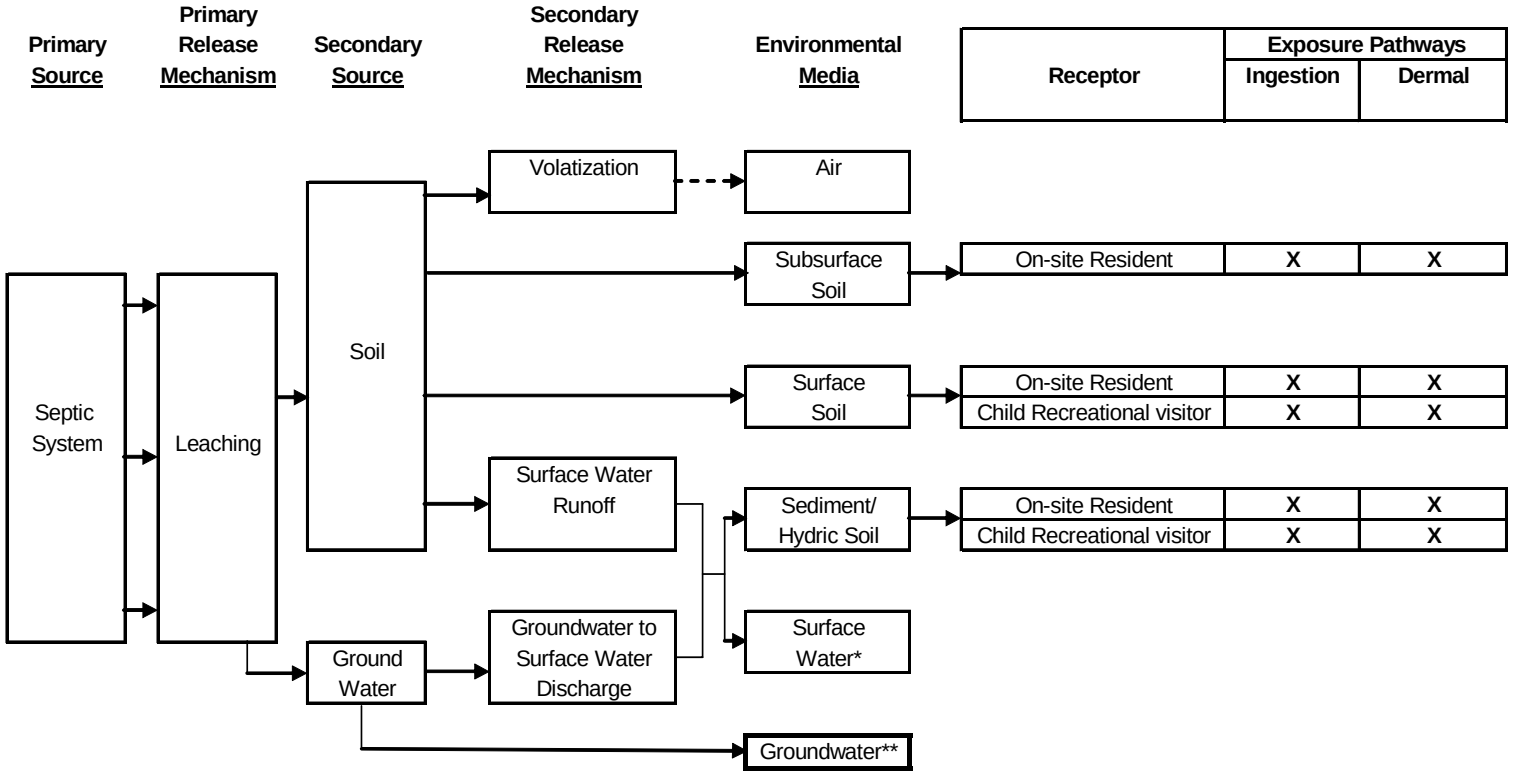


Figure 2-3 Sample Location Map

Figure 2-4 Human Health Conceptual Site Model

Source: Data from the Streamlined HHRA (EA, 2004).

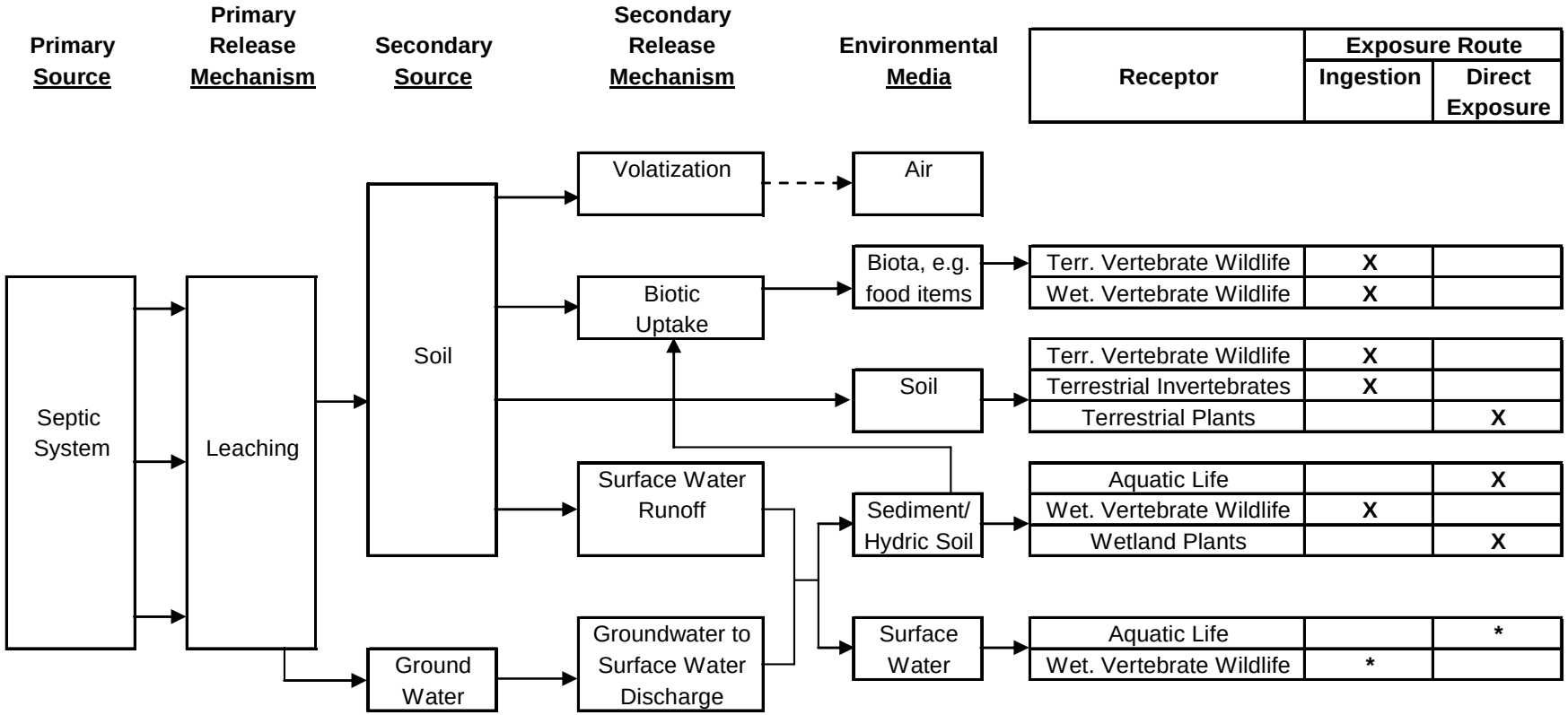


Dashed line indicates insignificant exposure pathway to receptors.

Note: X = Evaluated in HHRA.
* Surface water was not present at time of sampling, therefore exposures were not evaluated.
**No COPCs were identified in groundwater, therefore exposures were not evaluated.

Figure 2-5 Ecological Conceptual Site Model

Source: Data from the Streamlined ERA (Stone & Webster, 2004).



Dashed line indicates insignificant exposure pathway to ecological receptors.

Note: X = Evaluated in ERA.
* Surface water was not present at time of sampling, therefore these exposure routes were not evaluated.

PART 3—RESPONSIVENESS SUMMARY

I. STAKEHOLDER ISSUES AND NAVY RESPONSES

The Navy held a joint Public Hearing for two (2) Proposed Plans involving four (4) Areas of Concern (AOCs) on July 19, 2007. Verbal comments were received from several people during the public hearing on the Proposed Plan for AOC 4A (Air Traffic Control Area Abandoned Septic System) and AOC 55D (Wetland Area North of Trotter Road) and the Proposed Plan for AOC 8 (Wyoming Street Area – Building 70) and AOC 53 (Former Radio Transmitter Building Area). Written comments on AOC 4A were received from one person during the public comment period. A copy of the transcript for the public hearing is provided as Appendix E.1. The written comment received on AOC 4A is provided in Appendix E.2. Responses to the verbal and written comments are provided in Section III of this Responsiveness Summary.

II. TECHNICAL AND LEGAL ISSUES

The Navy has reviewed all comments received and the Navy does not believe any of the public hearing comments necessitate a change from the No Action Proposal for AOC 4A.

Therefore, the Navy and EPA believe that there is sufficient technical basis to proceed with the No Action ROD for AOC 4A. By proceeding with this ROD, the Navy has completed all required CERCLA actions/investigations at the site.

III. COMMENT RESPONSES

Verbal Comments and Response

Note that the following verbal comments are paraphrased. Refer to the hearing transcript (Appendix E.1) for the complete version of the comments recorded during the public hearing held on July 19, 2007.

1. Comment from Harvey Welch, Weymouth—Mr. Welch asked why testing the effects of combinations of chemicals on mice is only now underway. He wondered how decisions about health impacts on children and adults can be made without knowing the effects of combinations of chemicals.

Response—The Navy's human health risk assessments follow a process developed in conjunction with EPA and MassDEP for AOCs at NAS South Weymouth. This process is based on the EPA CERCLA human health risk assessment approach, which currently sums the risks calculated for individual chemicals of concern at a site to get a total risk number. This risk assessment approach is conservative because it adds the risks from all contaminants, rather than adding risks from a subset of contaminants that target the same organ. To date, the science supporting risk assessments has been based on studies of individual chemicals, but not on synergistic effects from combinations of chemicals. EPA has noted that studies on mice using combinations of chemicals are now being conducted. The risk assessment process may be modified in the future should there be a scientifically-supported basis demonstrating significantly different synergistic risks resulting from combinations of chemicals, but it is likely that this is several years out. It is important to note that while many chemicals appear frequently at sites, the actual chemicals of concern can vary based on the known or assumed source(s) of contamination.

2. Comment from James Cunningham, Weymouth—Mr. Cunningham expressed a concern about all four sites regarding wetlands in general and the possible effect on the flora and fauna in the area. He

also noted a concern about possible filling and use of wetland areas by the developer. At AOC 4A, he felt the presence of the septic tank could be a hazard and have an impact on the wetlands. He suggested that the tank, and the distribution box, should be removed.

Response—The risk assessment process and outcomes summarized in the Proposed Plans for AOCs 4A, 55D, 8, and 53 are designed conservatively to ensure that there is no unacceptable risk to people and wildlife (e.g. flora and fauna). The AOC 4A and 55D streamlined human health and ecological risk assessments were conducted by Navy with input from EPA and MassDEP throughout the process. Both agencies concurred with the results of the risk assessments for AOCs 4A and 55D and Navy's conclusions that No Action is appropriate at AOC 4A and 55D, and No Further Action is appropriate for AOCs 8 and 53. Regarding use of wetland areas by the developer, Navy does not have a role in the redevelopment process. However, the developer's redevelopment activities must comply with all applicable federal, state, and local laws and regulations.

At the time the septic system was inspected in 1999, South Shore Tri-Town Development Corporation (SSTTDC) had indicated a reuse potential for the control tower which the septic system supported. As such, Navy left the septic system in place to allow for its possible rehabilitation by SSTTDC to allow the tower to be reused. The SSTTDC plans have subsequently changed. As noted in the response to Mr. McCormack's written comment below, Navy plans to abandon the septic system in place, in accordance with applicable state regulations.

3. Comment from Harvey Welch, Weymouth—Mr. Welch suggested including the roads surrounding the base on maps of the base to help the public orient themselves.

Response—As appropriate, Navy will include roads surrounding the base on maps presented in future Proposed Plans.

4. Comment from Peter Scannell, Weymouth—Mr. Scannell stated that he is uncomfortable hearing about acceptable levels of chemicals and the conclusions leading to no further action. He also acknowledged that the best science available has been used in the risk assessments. However, his concern is the presence of chemicals in these areas, even though they are at levels deemed acceptable by the risk assessments.

Response—Please see the Responses to Comments # 1 and #2 above.

5. Comment from Ann Hilbert, North Weymouth—Ms. Hilbert expressed a concern about the health study and asked why Navy doesn't do their own health assessment.

Response—EPA has listed NAS South Weymouth on the National Priorities List (NPL). Accordingly, the Navy is following the CERCLA process at NAS South Weymouth to evaluate potential risks associated with exposures to concentrations of chemicals present at a site. The CERCLA process does not include an evaluation of public health issues related to historical exposures to chemicals in the environment. Public health and epidemiological studies of historical exposures are the responsibility of the Massachusetts Department of Public Health (MDPH) and the Agency for Toxic Substances and Disease Registry (ATSDR). The MDPH has recently conducted an amyotrophic lateral sclerosis (ALS) and multiple sclerosis (MS) study, and in 1999 ATSDR completed a public health assessment of NAS South Weymouth. While the Navy had no direct involvement with either the MDPH or ATSDR studies, the ATSDR study used Navy environmental data available at the time. The ATSDR study can be found at: http://www.atsdr.cdc.gov/HAC/PHA/weymouth/wey_toc.html.

6. Comment from Joanne Rakers—Ms. Rakers asked how to know if a chemical is toxic or not and at what level a chemical, such as arsenic, is higher than the normal level it should be. She also asked about details of the benchmark screening process and why if a chemical exceeds a level it isn't cleaned up. Ms.

Rakers also indicated a desire to know what is leaking from the Rubble Disposal Area (RDA) into Swamp River. She wants to see things cleaned up.

Response—The Proposed Plans presented at the July 19th public meeting summarized field work performed over many years as well as a large amount of chemical data that are discussed in detail in a number of reports. The documents applicable to each of the four AOCs are listed in a table at the end of each Proposed Plan and are available at the information repositories listed on the final page of each Proposed Plan. Details regarding the benchmark screening process conducted for AOCs 4A and 55D are in the streamlined human health risk assessments (HHRA) and streamlined ecological risk assessments (ERA) for each AOC. Site data were compared to screening benchmarks (guideline concentrations) to determine whether potential health effects were possible and if further assessment and/or remediation were required. The benchmarks are a preliminary screen and are not intended to be regulatory standards. Specific risk-based cleanup levels (concentrations) were developed for sites where it was determined that cleanup was warranted (e.g., AOCs 8 and 53). The specific benchmarks and cleanup levels are available for public review in the risk assessment (and other) documents. The Navy encourages the public to review the investigation reports to gain a better understanding of the environmental activities completed at each site. Consistent with the CERCLA process followed for the AOCs, and with input and review from EPA and MassDEP, chemicals detected in environmental media do not need to be 'cleaned up' if they are determined to be at concentrations that result in no unacceptable risk to human health and the environment or that are within background levels (e.g., many metals such as arsenic can be naturally occurring to some degree based on the site geology).

Navy has closed the RDA consistent with the Record of Decision signed by Navy and EPA in December 2003. The selected remedy included a cover system (landfill cap), which has been completed, and long-term monitoring, which is underway. The long-term monitoring reports are provided to the regulators, RAB town representatives, and the local repositories. Navy encourages the public to review these reports, which include the analytical results of all samples collected, to gain a better understanding of the long-term monitoring process and results.

7. Comment from Michael Smart, Weymouth—Mr. Smart commented that he felt that Navy did a thorough job on the work completed at AOCs 8 and 53. He agreed with Mr. Cunningham that the septic tank at AOC 4A should be removed. In addition, Mr. Smart stated his opinion that all material should be removed regardless of the level, especially the sediments in the wetland areas at AOCs 4A and 55D.

Response—Navy appreciates the acknowledgement of the work completed for AOCs 8 and 53. As noted in the response to Mr. McCormack's written comment below, Navy plans to abandon the septic system in place, in accordance with applicable state regulations. As noted in the Response to Comment #6, consistent with the CERCLA process, chemicals detected in environmental media do not need to be 'cleaned up' if they are determined to be at concentrations that result in no unacceptable risk to human health and the environment.

8. Comment from Dominic Galluzzo, Weymouth—Mr. Galluzzo noted that with the presentations on the Proposed Plans, the approximately two-thirds of the base that is ready to transfer have few contaminants of concern and little risk to humans. However, he expressed his skepticism as to the cleanliness of the land that will be redeveloped according to the reuse plan.

Response—As Mr. Galluzzo accurately noted, there have been few contaminants of concern found in all the investigations Navy has completed to date in accordance with the CERCLA process. The risk assessments that have been completed have also generally concluded low risks to human health and the environment. As mentioned in the responses above, in particular the Response to Comment #6, the CERCLA process followed by Navy with input and review by EPA and MassDEP, can result in conclusions of no unacceptable risk even though detected chemicals are present. The rigorous risk

assessment process developed by EPA, and followed by Navy, does not require cleanup of a site when there is no unacceptable risk or when concentrations are below background levels.

Written Comment and Response

The written comment received on AOC 4A during the public comment period is included in Appendix E.2.

Comment from Dan McCormack, Weymouth Health Department—To protect the safety of current and future occupants of the former base, the septic system should be abandoned in accordance with 310 CMR 15.354 (Massachusetts Title V). In accordance with Title V, the septic tank shall be excavated and removed from the site or the bottom of the tank shall be opened or ruptured and the tank shall be completely filled with clean sand. Without properly abandoning the system as part of your Proposed Plan, a hazard exists for onsite workers, children, etc. of falling into the tank.

Response—In response to the safety concerns noted in the comment, Navy plans to abandon the septic system in place, in accordance with applicable state regulations.

APPENDIX A: MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION LETTER OF CONCURRENCE

Refer to attached copy.

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

Mr. James T. Owens, Director
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114-2023

Re: Record of Decision
Area of Concern 4A
Former South Weymouth NAS
MassDEP RTN 4-3002621
January 15, 2008

Dear Mr. Owens:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the *Record of Decision, Area of Concern 4A – Air Traffic Control Area Abandoned Septic System, Naval Air Station South Weymouth*, dated December 2007. The Record of Decision (ROD) summarizes the results from the investigations conducted during the Environmental Baseline Survey (EBS) and the results from the subsequent human health and ecological risk assessments, which did not indicate the presence of a unacceptable risk to human health of the environment, and documents the Navy's rationale for selecting a No Action decision for the site. MassDEP concurs with the selected decision.

If you have any questions or comments, please contact David Chaffin, Project Manager (617-348-4005), or Anne Malewicz, Federal Facilities Section Chief (617-292-5659).

Sincerely,

Janine Commerford
Assistant Commissioner

cc: D. Barney, USN-S. Weymouth
K. Keckler, USEPA
Executive Director, SSTTDC
RAB Members
J. Felix, MADEP-Boston
J. Naparstek, MADEP-Boston

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD Service - 1-800-298-2207.

MassDEP on the World Wide Web: http://www.mass.gov/dep
Printed on Recycled Paper

APPENDIX B: REFERENCES

EA Engineering, Science, and Technology (EA), 2001. *Final Streamlined Human Health Risk Assessment Work Plan, Areas of Concern at NAS South Weymouth, South Weymouth, Massachusetts*. September 2001.

EA, 2004. *Streamlined Human Health Risk Assessment, Area of Concern 4A, Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA*. July 2004.

ENSR, 1998. *Final Phase I Remedial Investigation*, Naval Air Station, South Weymouth, MA. July 7, 1998.

ENSR, 1999. *Phase II Remedial Investigation Work Plan, South Weymouth Naval Air Station, Weymouth, Massachusetts.* April 1999.

Foster Wheeler Environmental Corporation (Foster Wheeler), 1999. *Draft Removal Action Report for Septic Systems*. July 15, 1999.

Foster Wheeler, 2003. Memorandum to Mr. Frank James Cellucci and Mr. Mark Leipert, Navy Engineering Field Activity Northeast, from Ms. Tracey Debuque, Foster Wheeler, re: *Results of Arsenic Sampling* (conducted 26 April 2002). May 29, 2003.

South Shore Tri-Town Development Corporation (SSTTDC), 2005a. Zoning and Land Use By-Laws for the Naval Air Station South Weymouth. May 5, 2005.

SSTTDC, 2005b. Reuse Plan for Naval Air Station South Weymouth. May 5, 2005.

Stone & Webster Environmental Technology & Services (Stone & Webster), 1996. *Final Report, Phase I Environmental Baseline Survey, Naval Air Station, South Weymouth, Massachusetts*. November 18, 1996.

Stone & Webster, 2000a. *Final Summary Report of Background Data Summary Statistics for NAS South Weymouth.* February 2000.

Stone & Webster, 2000b. *Final Focused Groundwater Flow Direction Study for the Phase II Environmental Baseline Survey, Naval Air Station South Weymouth, MA.* July 14, 2000.

Stone & Webster, 2001. *Revised Draft Phase II Environmental Baseline Survey Decision Document, Review Item Area 4A, Air Traffic Control Tower, Abandoned Septic System, Naval Air Station, South Weymouth, MA*. May 17, 2001.

Stone & Webster, 2002a. *EBS Phase II Field Report, RIA 4A – Air Traffic Control Area Abandoned Septic System*. July 2002.

Stone & Webster, 2002b. *Supplement to Final Summary Report of Background Data Summary Statistics for NAS South Weymouth.* November 2002.

Stone & Webster. 2004. *Final AOC 4, Air Traffic Control Tower Abandoned Septic System, Streamlined Ecological Risk Assessment, at Naval Air Station South Weymouth, MA*. June 8, 2004.

Tetra Tech NUS, 2007. *Site Management Plan, Revision 7.0, Naval Air Station South Weymouth, Massachusetts*. September 2007.

APPENDIX C: GLOSSARY

Area of Concern (AOC)—An area initially identified during the Environmental Baseline Survey as a Review Item Area (RIA) and currently being investigated under CERCLA. These sites require either removal actions or risk assessments to identify the potential current and future effects on human health and the environment.

Background Level—Chemicals or concentrations of chemicals present in the environment due to naturally occurring geochemical processes and sources, or to human activities not related to specific point sources or site releases.

Benchmark—Concentration of a chemical considered to be protective of human health or the environment.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)—A federal law passed in 1980 and amended in 1986 by the Superfund Amendments and Reauthorization Act. The Act created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Navy compliance with CERCLA/Superfund Amendments and Reauthorization Act (see Installation Restoration Program definition) is funded by the Department of Defense under the Defense Environmental Restoration Act.

Chemical of Potential Concern (COPC)—A compound or element identified as a possible source of risk, based upon a comparison between the chemical concentration and established screening levels.

Environmental Baseline Survey (EBS)—An environmental assessment conducted by the Navy at bases that have been closed under the Base Realignment and Closure (BRAC) Act.

Groundwater—Water found beneath the Earth's surface in soil pore spaces and fractures in geologic formations. When formations yield water in sufficient quantity and quality (i.e., an aquifer), groundwater is often used as a water supply.

National Priorities List (NPL)—U.S. Environmental Protection Agency's list of sites for priority cleanup under the Superfund program.

No Action/No Further Action—Under CERCLA, if there are no unacceptable risks to human health or the environment at a site, then "no action" is required (i.e., no remediation, monitoring, or land use restrictions, etc.). If remediation is conducted in order to achieve the condition of no unacceptable risk, then the site requires "no further action" under CERCLA.

Polycyclic Aromatic Hydrocarbons—Chemical compounds such as benzo(a)pyrene, naphthalene, anthracene, and phenanthrene, which are usually byproducts of incomplete combustion. PAHs can occur naturally (i.e. from forest fires) and as the consequence of human activities.

Proposed Plan—A CERCLA document that summarizes the lead agency's (in this case, the Navy's) preferred cleanup remedy for a site and provides the public with information on how they can participate in the remedy selection process.

Record of Decision (ROD)—A legal, technical, and public document under CERCLA that explains the rationale and final cleanup decision for a site. It contains a summary of the public's involvement in the cleanup decision.

Responsiveness Summary—A CERCLA document containing the responses to the formal comments submitted by the public regarding the Proposed Plan. This summary is issued as an appendix to the ROD.

Review Item Area (RIA)—A site identified during a Phase I EBS that required further study for potential contamination.

APPENDIX D: ADMINISTRATIVE RECORD INDEX

File No.	Vol.	Document No.	Document Type[a]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
1.0 SITE ASSESSMENT									
1.8 Environmental Baseline Survey									
1.8		1.8-1	R	Phase I Environmental Baseline Survey	11/96	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
1.8		1.8-2	R	Phase I EBS Report Errata	11/10/97	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
1.8		1.8-3	L	EBS Phone Conferences	9/5/00	Stone & Webster	U.S. Department of the Navy	A.R. File	4A
1.8		1.8-4	R	Revised Draft EBS Draft Decision Document for RIA 4A, Air Traffic Control Area Abandoned Septic System	5/17/01	Stone & Webster	U.S. Department of the Navy	A.R. File	4A
1.8		1.8-5	L	EBS Meeting Minutes	6/28/01	Stone & Webster	U.S. Department of the Navy	A.R. File	4A
1.8		1.8-6	L	EBS Meeting Minutes	2/25/04	Stone & Webster	U.S. Department of the Navy	A.R. File	4A
1.8		1.8-7	L	Meeting Notes, EBS Phase II	8/24/04	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	4A, 83, 55D, 110, 35, 61, Hangar 1
1.9 Work Plans									
1.9		1.9-1	R	Final Phase II Environmental Baseline Survey Sampling Work Plan (Rev. 1)	10/13/98	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide RIAs
1.9		1.9-2	L	Meeting Minutes Streamlined Risk Assessment Process South Weymouth Naval Air Station	9/00	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	Basewide
1.9		1.9-3	R	Final Work Plan for Review Item Area 4A, Air Traffic Control Tower, Abandoned Septic System, Naval Air Station South Weymouth, South Weymouth, MA	7/27/01	Stone & Webster	U.S. Department of the Navy	A.R. File	4A

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[a]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
1.9 Work Plans (cont.)									
1.9		1.9-4	R	Final Streamlined Human Health Risk Assessment Work Plan, Areas of Concern at Naval Air Station South Weymouth, South Weymouth, MA	9/01	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	4A, 4B, 9B, 53, 55A, 55B, 55C, 60, 84, 101
1.9		1.9-5	R	Final (Revision 1) Streamlined Ecological Risk Assessment Work Plan, Areas of Concern at Naval Air Station South Weymouth, South Weymouth, MA	4/30/02	Stone & Webster	U.S. Department of the Navy	A.R. File	4A, 4B, 9B, 53, 55A, 55B, 55C, 60, 84, 101
1.9		1.9-6	L	AOC 4A Proposed Investigative Sampling Locations	5/1/03	Foster Wheeler	U.S. Department of the Navy	A.R. File	4A
3.0 REMEDIAL INVESTIGATION									
3.2 Sampling and Analysis Data									
3.2		3.2-1	R	Final Phase I Remedial Investigation	7/7/98	ENSR	U.S. Department of the Navy	A.R. File	Basewide
3.2		3.2-2	R	Final Summary Report of Background Data Summary Statistics for Naval Air Station South Weymouth	2/24/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2		3.2-3	R	Errata to the Final Summary Report of Background Data Summary Statistics	3/8/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2		3.2-4	R	Supplement to Final Summary Report of the Background Data Summary Statistics for NAS South Weymouth	11/08/02	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2		3.2-5	R	Results of Arsenic Sampling	5/29/03	Foster Wheeler	U.S. Department of the Navy	A.R. File	4A
3.2		3.2-6	R	Arsenic Results	1/03	Stone & Webster	U.S. Department of the Navy	A.R. File	4A
3.2		3.2-7	R	EBS Phase II Field Report – RIA 4A	7/02	Stone & Webster	U.S. Department of the Navy	A.R. File	4A

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[a]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
3.6 Remedial Investigation Reports									
3.6		3.6-1	R	Draft Removal Action Report for Septic Systems. July.	7/99	Foster Wheeler	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-2	R	Turtle Investigation Report for CY 1999	4/00	Tetra Tech NUS (ENSR)	U.S. Department of the Navy	A.R. File	Basewide
3.6		3.6-3	R	Final Focused Groundwater Flow Direction Study for the Phase II Environmental Baseline Survey	7/14/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.6		3.6-4	R	Basewide Groundwater Flow Assessment Phase II Remedial Investigation	12/00	Tetra Tech NUS (ENSR)	U.S. Department of the Navy	A.R. File	Basewide
3.6		3.6-5	R	Turtle Investigation Report for CY 2000	4/01	Tetra Tech NUS (ENSR)	U.S. Department of the Navy	A.R. File	Basewide
3.6		3.6-6	L	[Comments on the] Draft Streamlined Ecological Risk Assessment, Area of Concern 4A – Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	2/24/03	EPA	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-7	L	[Comments on the] Draft Streamlined Human Health Risk Assessment, Area of Concern 4A, Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	1/7/04	MassDEP	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-8	L	Responses to February 24, 2004 EPA comments on Draft Streamlined Human Health Risk Assessment, AOC 4A – Air Traffic Control Tower Abandoned Septic System	6/8/04	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-9	R	Final Streamlined Ecological Risk Assessment, Area of Concern 4A, Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	6/8/04	Stone & Webster	U.S. Department of the Navy	A.R. File	4A

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[a]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
3.6 Remedial Investigation Reports (cont.)									
3.6		3.6-10	R	Final Streamlined Human Health Risk Assessment, Area of Concern 4A, Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	7/04	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-11	L	[Comments on the] Final Streamlined Ecological Risk Assessment and Final Streamlined Human Health Risk Assessment, AOC 4A, Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	8/3/04	MassDEP	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-12	L	[Comments on the] Final Streamlined Human Health Risk Assessment, Area of Concern 4A, Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	8/17/04	EPA	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-13	L	[Comments on the] Final Streamlined Ecological Risk Assessment, Area of Concern 4A – Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	8/19/04	EPA	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-14	L	Revised Responses to January 7, 2004 DEP comments on Draft Streamlined Human Health Risk Assessment, AOC 4A – Air Traffic Control Tower Abandoned Septic System	8/25/04	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	4A
3.6		3.6-15	L	Responses to August 3, 2004 DEP E-Mail Comments on Final Streamlined Ecological Risk Assessment and Final Streamlined Human Health Risk Assessment, AOC 4A, Air Traffic Control Tower Abandoned Septic System, Naval Air Station South Weymouth, MA	12/8/04	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	4A

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[a]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
4.0 FEASIBILITY STUDY									
4.8 Proposed Plans for Selected Remedial Action									
4.8		4.8-1	R	Final Proposed Plan, AOC 4A and 55D, Naval Air Station South Weymouth, Weymouth, Massachusetts	6/07	U.S. Department of the Navy	Public	A.R. File	4A, 55D
5.0 RECORD OF DECISION									
5.3 Responsiveness Summaries									
5.3		5.3-1	L	Copy of Public Comments Received on the Proposed Plan for AOC 4A (included as Appendix E.2 of the Record of Decision)	7/8/07	Public	U.S. Department of the Navy	A.R. File	4A
5.3		5.3-2	R	Transcript of the Public Hearing on the Proposed Plan for the AOCs 4A and 55D (included as Appendix E.1 of the Record of Decision)	7/19/07	Public	U.S. Department of the Navy	A.R. File	4A, 55D, 8 , 53
5.3		5.3-3	R	Responsiveness Summary (included as Part 3 of the Record of Decision)	12/07	U.S. Department of the Navy	Public	A.R. File	4A
5.4 Record of Decision									
5.4		5.4-1	R	Record of Decision (Parts 1 and 2), Area of Concern 4A – Air Traffic Control Area Abandoned Septic System, Naval Air Station South Weymouth, Massachusetts	12/07	U.S. Department of the Navy and EPA	Public	A.R. File	4A
10.0 ENFORCEMENT/NEGOTIATION									
10.16 Federal Facility Agreements									
10.16		10.16-1	L	Federal Facility Agreement for South Weymouth Naval Air Station National Priorities List Site	4/00	EPA	U.S. Department of the Navy	A.R. File	Basewide
13.0 COMMUNITY RELATIONS									
13.2 Community Relations Plan									
13.2		13.2-1	R	Community Relations Plan Naval Air Station South Weymouth, Massachusetts	7/98	U.S. Department of the Navy	Public	A.R. File	Basewide

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[a]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
13.4 Public Meetings/Hearings									
13.4		13.4-1		Restoration Advisory Board Workshop Guidebook	7/94	EPA	Public	A.R. File	Basewide
13.4		13.4-2		Legal Notice: Availability of the Proposed Plan, and Notification of Public Meeting and Comment Period	7/07	Tetra Tech NUS	Public	A.R. File	4A
13.4		13.4-3		Public Notice: Notification of Restoration Advisory Board Meetings (Monthly)	1995-2007	Tetra Tech NUS and EA Engineering, Science, and Technology	Public	A.R. File	Basewide
13.4		13.4-4		Restoration Advisory Board Meeting Minutes (Monthly)	1995-2007	U.S. Department of the Navy	Public	A.R. File	Basewide
13.5 Fact Sheets/Information Updates									
13.5		13.5-1	R	The Former Naval Air Station South Weymouth Environmental Fact Sheet	2/98	EA Engineering, Science, and Technology	Public	A.R. File	Basewide
13.5		13.5-2	L	Legal Notice: Public Information and Public Hearing for the AOC 4A and 55D Proposed Plan	7/07	Tetra Tech NUS	Public	A.R. File	4A, 55D
13.5		13.5-3	L	Legal Notice, Record of Decision Available For AOC 4A	12/07	Tetra Tech NUS	Public	A.R. File	4A
13.6 Mailing Lists									
13.6		13.6-1		Community Relations Mailing List: State, Federal and Local Agencies (including Media and Public Libraries)	N/A	U.S. Department of the Navy	N/A	A.R. File	Basewide
13.6		13.6-2		Community Relations Mailing List: Other Parties (e.g., general public) – CONFIDENTIAL (due to potential Privacy Act violations)	N/A	U.S. Department of the Navy	N/A	A.R. File	Basewide

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
17.0 SITE MANAGEMENT RECORDS									
17.6 Site Management Plans and Reviews									
17.6		17.6-1	R	Site Management Plan Naval Air Station South Weymouth, Massachusetts	10/99	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-2	R	Site Management Plan Revision 1.0 Naval Air Station South Weymouth, Massachusetts	10/00	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-3	R	Site Management Plan Revision 2.0 Naval Air Station Weymouth, Massachusetts	11/01	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-4	R	Site Management Plan Revision 3.0 Naval Air Station South Weymouth, Massachusetts	4/03	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-5	R	Site Management Plan Revision 4.0 Naval Air Station South Weymouth, Massachusetts	12/04	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-6	R	Draft Site Management Plan Revision 5.0 Naval Air Station South Weymouth, Massachusetts	8/05	Tetra Tech NUS	U.S. Department of the Navy	A.R. File	IR Sites
17.6		17.6-7	R	Site Management Plan Revision 6.0 Naval Air Station South Weymouth, Massachusetts	10/31/06	Tetra Tech NUS	U.S. Department of the Navy	A.R. File	IR Sites
17.6		17.6-8	R	Site Management Plan Revision 7.0 Naval Air Station South Weymouth, Massachusetts	09/07	Tetra Tech NUS	U.S. Department of the Navy	A.R. File	IR Sites

(a) R = Report; L = Letter.

NOTES:

AOC = Area of Concern
A.R. File = Administrative Record File
EBS = Environmental Baseline Survey
EPA = (U.S.) Environmental Protection Agency (Region 1)
NAS = Naval Air Station
RIA = Review Item Area
MassDEP = Massachusetts Department of Environmental Protection
N/A = Not Applicable

APPENDIX E.1: TRANSCRIPT OF PUBLIC HEARING ON THE PROPOSED PLAN FOR AOC 4A

Refer to attached copy.

PUBLIC HEARING

Area of Concern 4 A

Area of Concern 55D

Area of Concern 8

Area of Concern 53

Naval Air Station South Weymouth

Weymouth, MA

July 19, 2007

8 p.m.

NAS South Weymouth, MA

1 P R O C E E D I N G S

2 MS. ROBERTS: We are officially
3 going to begin with the public hearing. And just so
4 that people know how this process runs, this is the
5 formal process. So what will happen is this is an
6 opportunity for you to make your comments, ask
7 questions, and they will be formally recorded in the
8 record. Those will appear in the Responsiveness
9 Summary that is part of the Record of Decision.
10 So when you have your comment, we're
11 going to take you one at a time, just say your name
12 and then your comment or your question. They'll be
13 recorded. Just keep in mind that during public
14 hearings your questions are not answered. Your
15 answers will be part of the Responsiveness Summary.
16 VOICE: Will we all get a
17 responsiveness summary of who gave questions or
18 comments?
19 MR. BARNEY: Yes. Everybody who makes
20 a written or an oral comment will get a copy of the
21 Responsiveness Summary.
22 MS. ROBERTS: Just so that we're clear,
23 the comments or the questions are related to the

1 floor presentation. So we'd like to stay on topic.
2 MR. GALLUZZO: Before we start, what is
3 the timeframe from this process to a response?
4 MS. ROBERTS: Great question. Does
5 somebody want to answer that?
6 MR. BARNEY: I'll go through the
7 structure of the process. Roughly 30 days after the
8 close of the comment period we'll submit a draft
9 Record of Decision to the agencies for review.
10 They'll have 30 days to review that, send us our
11 comments or send us their comments. We'll work to
12 resolve those comments and send them a draft final
13 Record of Decision, and the Responsiveness Summary
14 is a part of that. They'll look at those for a
15 period of time and hopefully we can reconcile within
16 30 to 60 days and furnish a final Record of
17 Decision.
18 So did you add up all those 30s?
19 VOICE: Looks like February.
20 MS. CALL: I think it's December we
21 expect, we hope.
22 MR. BARNEY: Between 4 and 6 months.
23 MS. ROBERTS: Harvey.

1 MR. WELCH: So that would be about 4 or
2 6 months for that West Gate Landfill from now? If
3 it was closed July 6th, comment period.
4 MR. BARNEY: If it takes us that many
5 iterations to get through, perhaps we can cut down
6 the iteration effect between the Navy, the agencies,
7 on the elements of the Record of Decision.
8 MR. CHAFFIN: Maybe briefly mention the
9 comment period for these as proposed.
10 MR. BARNEY: Yes. The period closes
11 August 1st.
12 MR. CHAFFIN: You can write your
13 comments, if you're not comfortable doing it orally
14 tonight, there is a place in the Proposed Plan, a
15 form you can use.
16 MS. ROBERTS: Yes, you can do both. If
17 there is something you remember after tonight's
18 forum, always go ahead and submit them in writing as
19 well.
20 MR. BARNEY: It closes August 1st. We
21 usually wait 3 to 4 days after that for the mail to
22 come in.
23 MS. ROBERTS: So who would like to

1 start? Dave, do you have anything you would like to
2 start with?
3 MR. BARNEY: I would like to thank
4 everyone for coming, and I appreciate the comments
5 we heard earlier, and if I hadn't addressed any of
6 those sufficiently, please readdress those here
7 tonight and compel us to come back with a new
8 response or alternate response.
9 MS. ROBERTS: Harvey.
10 MR. WELCH: Harvey Welch from Weymouth.
11 I would like to know why they are just starting to
12 test what you said on mice these combinations of
13 toxic chemicals to get an accurate assessment of how
14 it's affecting children and adults, people. How can
15 you make a good judgment decision when -- what
16 amazes me, you're just starting this now, and how
17 can you make a good judgment decision on these sites
18 with the cocktail of chemicals that are on there
19 when you really don't know what this -- I know you
20 talk about adding up things, but I'm talking about
21 literally doing tests with these toxic chemicals on
22 mice which you said they just supposedly started
23 doing, which is amazing to me. In other words how

1 can you make a good judgment on not doing those
2 tests? That's my question.
3 MS. ROBERTS: All right.
4 MR. CUNNINGHAM: James Cunningham from
5 Weymouth. First of all I would like to know if
6 you're taking these, first the Area 4 A and so forth
7 and then later Area 8 and 53, or are you taking them
8 all at one time?
9 MR. BARNEY: All at one time.
10 MR. CUNNINGHAM: On the Area 4 A, the
11 abandoned septic system, I have concerns with the
12 words, the only area of potential unaccessible --
13 unacceptable risk at AOC 4 A was the wetland west of
14 the site. That word potential to me is kind of a
15 weasel word, and I'm really concerned about the
16 welfare of animals and the environment. And I'm
17 concerned that the animals may be subject to some
18 sort of pollution that will harm them.
19 I'm also concerned that the developer
20 will probably fill in some wetlands and use these
21 places for buildings and that they may be
22 contaminated then. So I'm concerned about wetlands
23 in general. In all of these four sites I am

1 concerned about the wetlands and the possible effect
2 on the animals and flora and fauna in the area.
3 Also on Site 4 A the septic tank, I'm
4 concerned that it is possible that the septic tank
5 could rot out and become a sink hole or become some
6 sort of a hazard and could fill up with some kind of
7 water and become just another little sewage pond.
8 So I believe that the septic tank should be removed,
9 especially when you consider the requirements under
10 Title V. And perhaps also the distribution box.
11 And I am concerned that it's so close to the
12 wetlands and that materials from the septic tank
13 could have gone into the wetlands.
14 Again, I am concerned about the
15 environmental or natural environment of this area
16 and the animals and plants that it supports. So I
17 would like to see that tank removed, and I would
18 like to make sure that the animals don't get injured
19 and the people who live nearby after the places are
20 built out also don't get any injurious results.
21 Thank you.
22 MS. ROBERTS: Anyone else. Yes.
23 MR. WELCH: This has to do with the

actual presentation pamphlet that you handed out. I have been asking this, Dave, I don't know, I know I talked to you about this, of having a map of the base with the roads surrounding the base on it so people can see where they are living, and they can match it up to where they are near the base. Do you understand what I'm saying?

MR. BARNEY: Absolutely.

MR. WELCH: And even in this presentation you look at, you see a block basically which is what we have being looking at since we started, with no streets around it. It's like, always like it's planted here from outer space, and you have no streets around it. It should have streets around it so people can get an idea of where West Gate Landfill is. They could be living up the street from it. They don't know that because it's a blop on a map. You can't picture it if you have no orientation. That's the word I'm looking for, orientation on this map. You can't do that. That makes a big difference. And how come we can't do that? I don't think that's so hard to do. Why can't we do that? Is there a reason?

1 MS. ROBERTS: Thank you.
2 MR. WELCH: I'm just asking.
3 MS. ROBERTS: Can't answer for the
4 public hearing.
5 MR. WELCH: I'm sorry. That's a
6 question.
7 MS. ROBERTS: After the hearing is over
8 he might be able to answer that.
9 MR. SCANNELL: Peter Scannell of
10 Weymouth, Mass. We all feel extremely uncomfortable
11 when we hear about acceptable levels of some of the
12 SVOCs and so forth found, to say that there is no
13 further action will be taking place in areas where
14 PCBs, thallium, benzos and so on so forth,
15 extraordinarily dangerous, in name, exist. And to
16 know very well that not only is no action going to
17 be taken, and because of cost restraints and so
18 forth, and assume public contact with those areas
19 would be minimal or whatever the risk assessment
20 analysis use is acceptable. Again, that is our
21 concern. Pardon me, that is my concern. I know for
22 sure that nobody has to this day said no. As a
23 matter of fact of course we're going to make sure

1 that people are aware of these various areas and in
2 a historical nature.
3 I understand it was said tonight that
4 we do not in the Superfund world rely on history.
5 We understand quite well that's because of
6 liability. So these are all the things that deeply
7 concern us tonight, and we understand, again as
8 we've talked, that the carcinogenic risk assessment
9 does not take into consideration MS, soft tissue
10 diseases, and so forth and so on. As this gentleman
11 just said, combinations of elements.
12 We are just beginning to tackle that
13 science. And it was very succinctly said here
14 tonight that we are using the best science we have
15 available. I absolutely believe that of this board
16 and of the Navy. And I applaud them for using that,
17 and I know it's extraordinarily expensive. At the
18 same token, knowing very well there will be better
19 science in the future and knowing the nature of
20 these particular chemicals in these areas, it's just
21 the part that irks the heck out of me is that we're
22 not addressing that they are here.
23 How do we live with them? There is no

1 pamphlet for the people that are going to be lured
2 to Southfield on how to live in a Superfund site or
3 among Superfund sites or remediated Superfund sites.
4 Children, little Johnny going in the water. It was
5 said here tonight that you'd show no precaution to
6 your grandchild or daughter if you decided to go
7 into the wetland looking for turtles knowing very
8 well what is there. I greatly doubt that. I think
9 you'd probably get a little nervous when she was
10 bringing her hand to her mouth repeatedly. And that
11 would be justified. And it's just that knowledge.
12 People deserve to have that knowledge or else nobody
13 would buy it. That is the concern.
14 So again, full disclosure. The nemesis
15 of firms like LNR, read their history and so forth.
16 That is our concern. Your findings I absolutely
17 applaud the tenacity, perseverance, level of
18 integrity that's been brought and what has been
19 found, and you are hamstrung in that you are given
20 benchmarks and you don't dictate these acceptable
21 levels. These are the things that you're supposed
22 to work within knowing full well that they are not
23 perfect, and that's understandable, but precautions

1 that are not being taken that are so easy to do and
2 that knowing South Shore Tri Town has never once
3 addressed them and as a matter of fact wants to
4 create an orchard environment to beckon people to
5 this base knowing what is in here is extraordinary.
6 Thank you.
7 ANN HILBERT: Ann Hilbert, North
8 Weymouth. I'm concerned about what I heard tonight.
9 I asked about the health study, and the Navy is
10 relying on the Department of Environmental Affairs.
11 I have been around a while so I'm familiar with the
12 politics in Massachusetts. Why is the Navy
13 depending on them? Why don't they come in and do
14 their own assessment. This is going to live in
15 infamy if this isn't done right.
16 MS. RAKERS: Joanne Rakers. I have
17 been coming for many years here and every time you
18 send us something I learn a little more. I was just
19 reading through the AOC, the 55 D, and every time
20 I've ever asked questions about compounds or
21 mixtures, how you know that it's toxic or not. What
22 level, like I asked before, what would arsenic be
23 for in water, arsenic out of water. What would it

1 be, the level that we can go after and say this
2 level is higher than the normal level that it should
3 be at.
4 In here I was reading semi-volatile
5 stuff you have in here, and you say they were fine
6 but one sediment example was over the screening
7 level. What is over the screening level? I need to
8 find out exactly what each thing is toxic to or not
9 toxic to. You have tons of it here. It says
10 pesticides exceeded benchmark screening levels in
11 both soil and water. How high was it? I would like
12 to know how to figure it out myself. I mean I go
13 through these, benzene, everything in here that is
14 very toxic. All of a sudden you give us different
15 categories like one of benzo, you said it's 0.056.
16 ug-L. What does that basically mean? It's too high
17 or too low or it's okay, but if it's mixed with
18 another chemical, at which I missed the program this
19 morning, sorry I missed most of it, but every time I
20 go through these it says within the range or over it
21 exceeds. If it over exceeds that means there is
22 something wrong with it. Why isn't it cleaned up
23 all the way?

1 It can leak. You are capping all these
2 things that do leak. We understand that. But why
3 do we have to wait for it to leak again for you to
4 fix it? It is our kids' lives that are there.
5 The rubbish disposal area, we know
6 there is all kinds of crap in there running into the
7 Swamp River and into our water system, but nobody
8 has the guts to tell us what it is or what the
9 process is to clean it. We should be able to know
10 what's in it. And you make the statements it's over
11 above the level of DEP's evaluation of it. We have
12 got to know exactly what it was. I would love to
13 find out everything you have in here that gives you
14 the examples of DDT. It's 0.035, ug-L. How high
15 does DDT have to be before it hurts somebody?
16 I just think you need not to cover this
17 up, just clean it as best you can and let us live
18 half a decent life with our children. If not, I
19 wouldn't let my child come here and sit in a field
20 with a fence around it. I would not and I don't
21 think half of you would too. Jim Cunningham brought
22 this up years ago. Oh, Joanne, it's fine. They're
23 going to put a gate around it. No one is going to

1 go in it. But would he come with his grandchild and
2 sit in the middle and have a picnic with his kids?
3 No.
4 And to have this statement and bunch of
5 stuff we're going through all these years, putting a
6 fence is not going to stop a child from climbing
7 over if you put a sign on it. I'd just love to
8 clean it up, clean it so we can start anew in
9 Weymouth. That's all I ask.
10 MR. SMART: Michael Smart from
11 Weymouth. First I just want to comment on AOC 8 and
12 53. Just to follow up on one of the comments made
13 earlier, just to thank the Navy for their hard work
14 on those particular two sites with over 3 million
15 pounds of soil removed over a number of years from
16 2001 right through 2005 in checking it and
17 monitoring it. I think you did a thorough job on
18 those two sites there.
19 However, on the other two sites on 4 A
20 and 55, I would have to agree with Mr. Cunningham
21 with regard to the septic tank on 4 A with having
22 everything removed, and I as well have been coming
23 here for a number of years and commenting. And Dave

1 I think you know, my usual take on things that were
2 not here prior to 1940 that everything should be
3 removed with regard to the sediments in the wetland
4 area on 4, 55 and 4 A. PCB levels everything should
5 be removed. In my opinion, I've said it at every
6 single Record of Decision, every single public
7 hearing, all that material should be removed in my
8 opinion regardless of the level. And none of that
9 stuff was here. I understand baseline survey and I
10 understand PCB in the air base from the number of
11 meetings I've been to, but things that were here
12 prior to the Navy taking the property with regard to
13 electrical equipment, transformers, and the antenna
14 field and everything out there, I would think that
15 everything should be removed including the areas in
16 the wetlands on both 4 A and 55. Thank you.
17 MS. ROBERTS: Yes.
18 MR. GALLUZZO: Dominic Galluzzo of
19 Weymouth. I have to agree with Mr. Smart's
20 comments. I'm disappointed at this point that after
21 tonight's presentations we come to realize that
22 almost two-thirds or better than two-thirds of this
23 footprint is ready for transfer with so little

1 contamination of concern and that the risk
2 assessments to humans is so low. This base was
3 active when environmental concerns were primitive
4 compared to today. I just as one individual become
5 increasingly more skeptical as to the cleanliness of
6 the land that the reuse plan says there is going to
7 be a densely populated reuse plan. Thank you.
8 MS. ROBERTS: Any other comments? This
9 concludes our public hearing. Thank you for coming.
10 Thank you for your time.
11 Dave, do you want to say anything else
12 before we close?
13 MR. BARNEY: The sentiment that I
14 appreciate people taking the time out of their busy
15 lives to come here and express their opinions.
16 Thank you.
17 (The proceedings adjourned
18 at 8:41 p.m.)
19
20
21
22
23

1 C E R T I F I C A T E

2

3 STATE OF MASSACHUSETTS)

4 COUNTY OF NORFOLK))

5 I, *CAROL DiFAZIO*, do certify that I am a Registered Professional Reporter of the State of
6 Massachusetts, that the said proceeding was recorded stenographically by me, thereafter under my
7 direction transcribed into computer-assisted transcription, and that the foregoing transcript
8 constitutes a full, true, and correct report of the proceedings to the best of my ability, which then
9 and there took place.

10

11 CAROL DiFAZIO
12 Registered Professional Reporter

13

14

15

16

17

18

19

20

21

22

23

APPENDIX E.2: PUBLIC COMMENTS ON THE PROPOSED PLAN FOR AOC 4A

Comments on the Proposed Plan received during the public comment period are attached.

Town of Weymouth
Massachusetts

Health Department

Richard T. Marino, R.S., C.H.O.
Director of Public Health

Tel. (781) 340-5008
Fax. (781) 682-6112
Email rmarino@weymouth.ma.us

David M. Madden
Mayor

75 Middle Street
Weymouth, MA 02189

(781) 331-5124 TTY

July 25, 2007

Mr. Brian Helland
Remedial Project Manager
BRAC Program Management Office, Northeast
4911 South Broad Street
Philadelphia, PA 19112

Dear Mr. Helland

I offer the following comment for the Navy's Proposed Plan for Area of Concern 4A.

To protect the safety of current and future occupants of the former base, the septic system should be abandoned in accordance with 310 CMR 15.354 (Massachusetts Title V). In accordance with Title V, the septic tank shall be excavated and removed from the site or the bottom of the tank shall be opened or ruptured and the tank shall be completely filled with clean sand.

Without properly abandoning the system as part of your Proposed Plan, a hazard exists for onsite workers, children, etc. of falling into the tank.

Thank you for the opportunity to comment.

Sincerely,

Dan McCormack
Chemicals Management and Surveillance Officer
Weymouth Health Department