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NAS SOUTH WEYMOUTH
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LETTER AND COMMENTS FROM U S EPA REGION I REGARDING DRAFT ENGINEERING
EVALUATION/COST ANALYSIS FOR AREA OF CONCERN 55C NAS SOUTH WEYMOUTH
MA
05/21/2009
U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

May 21, 2009

Brian J. Helland, P.E.
BRAC Program Management Office NE
4911 South Broad Street
Philadelphia, PA 19112-1303

Re: Draft Engineering Evaluation/Cost Analysis for AOC-55C

Dear Mr. Helland:

Thank you for the opportunity to review the *Draft Engineering Evaluation/Cost Analysis (EECA) for AOC-55C* at the Naval Air Station South Weymouth, dated March 2009. Detailed comments are provided in Attachment A.

EPA reviewed the analysis of removal action options for AOC55C based on the understanding that this removal action is aimed to be the final action for the site. The remedial goals for the site should be clearly specified in the EE/CA. While page 5 lists the NOEC and LOEC contaminants identified through the risk assessments, the cleanup goals should be more clearly presented.

Since the ponded area is likely a vernal pool (as indicated by the presence of fingernail clams), it is important to document the presence or absence of obligate and facultative vernal pool organisms, and protected species (*see* <http://www.massnature.com/Wildlife/Vernalpoolcreatures/vpinfo.htm>). Therefore, a herpetological survey should be conducted over the spring and summer before the excavation during the dry period, and efforts should be made to restore the hydrological elevations to retain the vernal pool functionality. An uncontaminated portion of the ponded area should be left unexcavated (and protected from suspended sediment by silt fencing) to enable recolonization by fingernail clams. To minimize colonization by invasive plants, it is important to retain shading by as many trees as possible in this wooded wetland. Therefore, metal debris should be pulled carefully from the root mass of the larger trees with an excavator equipped with pincers, rather than removing the tree and roots. The extra cost for this careful excavation should be considered in the cost estimate. Replacement trees should be at least eight feet tall to overshadow any invasives, and the trunks of all replacement trees and saplings should be protected from deer browse (*e.g.*, barrier material). The wetland recovery should be documented with a program similar to what was done for the Rubble Disposal Area. Please describe the frequency and duration of the wetland recovery monitoring program.

The EE/CA mentions that the excavation areas within the wetland will be restored, but fails to provide details in this regard. Please explain what monitoring will be done and how the removal action will meet the requirements of Section 404 of the Clean Water Act and its implementing regulations.

EPA noticed that the ARARs tables presented in Appendix A are incomplete. In the interest of efficiency, EPA is providing replacement ARARs Tables herewith (*see* Attachment B).

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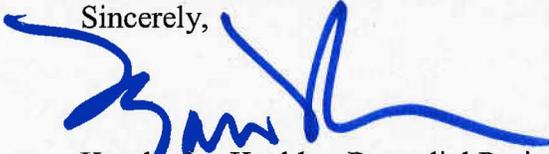
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EPA is not aware of any follow-up to its April 2008 comments on the Ecological Risk Assessment, Human Health Risk Assessment, and Functions and Values Assessment. A full review of this EE/CA and specifically, review of the rationale for the removal action, is pending submittal of final versions of the risk assessments.

I look forward working with you and the Massachusetts Department of Environmental Protection on the investigation and remediation of the remaining areas of the base. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,



Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachments

cc: Dave Barney, USN, South Weymouth, MA
Dave Chaffin, MADEP, Boston, MA
Kevin Donovan, SSTTDC, South Weymouth, MA
Rona Gregory, USEPA, Boston, MA
Phoebe Call, TTNUS, Wilmington, MA

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. 1, ¶1	Replace “may present” with “presents” to be consistent with the following paragraph and remainder of the document.
p. 3, §1.3	The text states that the EM survey identified an area of approximately 19,830 square feet that had been impacted by metal debris. Figure 3 depicts an area of approximately 15,500 square feet for removal. While EPA recognizes that these are estimates, the difference is significant. Please include a figure, or emend Figure 3, with the limits of debris as identified by the EM survey.
p. 4	In the second bullet, please clarify if the three samples were sediment or soil.
p. 5, §1.3	Please define the acronym PEC (Probable Effect Concentration) in the table.
p. 7, §2.1	Please use the ORNL Regional Screening values instead of the Region IX PRGs. Please include the most recent version of the EPA regional screening levels with the other identified criteria in the comparison of post-excavation sample analytical results. Please describe the post-excavation sampling program in more detail (<i>i.e.</i> number of samples, analytical parameters, QA/QC, <i>etc.</i>). Please include a table of these comparison criteria in the draft final version of the EECA and describe the approach for dealing with exceedances because some of the results may be higher than the lowest criterion because of metallic debris. The decision process used for long-term monitoring of the wetland area at the U.S. Coast Guard Buoy Depot may be a useful model.
p. 9, §3.2, Bullet 3	Please clarify whether the discharged water will be discharged offsite or back into the AOC55C wetland.
p. 9, §3.2, Bullets 5 & 6	It would be preferable to remove as much debris from the <i>in situ</i> locations as possible before excavating and stockpiling soil. As written, no allowance is acknowledged for doing this – the text just states that metal debris will be removed from the stockpiled soil. Also, to the extent necessary, debris should be cleaned before consolidating for disposal.
p. 11	Please list any traffic or noise impacts under the short-term effectiveness section.
Table 1	Regarding Notes 1 and 2, EPA cost guidance recommends that the real discount rates as presented in the Office of Management and Budget Circular A-94, Appendix C be used for cost estimates. The latest rates were issued January 2009 and indicate that a rate of 2.7 percent for a 30-year term should be used rather than the 4 percent rate used.
Figure 3	It is not apparent from the analytical results that the proposed extent of removal is necessary. If the limits of the excavation are driven by the extent of debris as defined by the geophysical investigation, please clarify that with a figure note.

Because the removal action is almost entirely within the wetland, please minimize the extent of removal as much as practical. Additional sampling may be warranted to do this.

ATTACHMENT B
ARARs

Compliance with ARARS – AOC 55C – Non-time critical removal				
Requirement/Guideline	Citation	Status	Requirement/Guideline Synopsis	Action to be Taken to Attain ARAR/TBC
CHEMICAL-SPECIFIC				
Federal Regulations				
Cancer slope factors		TBC	Guidance used to compute individual incremental cancer risk resulting from exposure to carcinogenic contaminants in site media.	This alternative will meet this standard since potential carcinogenic risks caused by exposure to contaminants will be addressed by excavation/dredging of contaminated soil/sediment and off-site disposal.
Reference Dose (RfD)		TBC	Guidance used to compute human health hazard resulting from exposure to non-carcinogens in site media	This alternative will meet this standard since potential non-carcinogenic hazards caused by exposure to contaminants will be addressed by excavation/dredging of contaminated soil/sediment and off-site disposal.
Guidelines for Carcinogen Risk Assessment	EPA/630/p-03/001F March 2005	TBC	Guidance for assessing cancer risk	This alternative will meet this standard since potential carcinogenic risks caused by exposure to contaminants will be addressed by excavation/dredging of contaminated soil/sediment and off-site disposal.
Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens	EPA/630/r-03/003F March 2005	TBC	Guidance for assessing cancer risks in children	This alternative will meet this standard since potential carcinogenic risks caused by exposure to contaminants will be addressed by excavation/dredging of contaminated soil/sediment and off-site disposal.
Recommendations of the Technical Review Workgroup for Lead for an Approach to Assessing Risks Associated with Adult Exposure to Lead in Soil	EPA-540-R-03-001 January 2003.	TBC	EPA guidance for evaluating the risks posed by lead in soil.	This alternative will meet this standard by excavation/dredging of lead-impacted soil/sediment exceeding residential risk standards and off-site disposal.
LOCATION-SPECIFIC				
Federal Regulations				
Clean Water Act § 404 / Discharge of Dredged or Fill Material	33 U.S.C. § 1344 ; 33 CFR 320-330; 40 CFR 230, 231	Applicable	Regulates the discharge of dredged or fill materials into navigable waters, including federal jurisdictional wetlands. Provides that no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. Appropriate and practicable steps must be taken that will minimize the potential adverse impacts of the discharge of the dredged material on the aquatic ecosystem.	It has been determined that there is no practicable alternative having less adverse impact on the aquatic ecosystem than the excavation of contaminated sediments and backfilling alternative. Backfilling activities will comply with these provisions of the CWA. Mitigation for altered wetlands functions and values will be addressed.
Fish and Wildlife Coordination Act	16 U.S.C. § 661 <i>et seq.</i>	Applicable	Any modification of a body of water/wetland requires consultation with the U.S. Fish and Wildlife Service and the appropriate state wildlife agency to develop measures to prevent, mitigate or compensate for losses of fish and wildlife.	This alternative includes work to be performed in or near wetlands. The Navy will consult with U.S. Fish and Wildlife Service since excavation of contaminated soils and sediments will involve the modification of wetlands or waterways.

Compliance with ARARS – AOC 55C – Non-time critical removal

Requirement/Guideline	Citation	Status	Requirement/Guideline Synopsis	Action to be Taken to Attain ARAR/TBC
Historic Sites Act of 1935; National Historic Landmarks	16 U.S.C. § 469 <i>et seq.</i> ; 36 C.F.R. Part 65	Applicable	The purpose of the National Historic Landmarks program is to identify and designate National Historic Landmarks, and encourage the long range preservation of nationally significant properties that illustrate or commemorate the history and prehistory of the United States.	These standards are applicable to any potential historic, archeological, or cultural resources on the site. Features with potential historical/cultural significance will be evaluated during the design phase. Should this alternative impact historic properties/structures determined to be protected by these standards, activities will be coordinated with the Department of the Interior.
National Historic Preservation Act of 1966; Protection of Historic Properties	16 U.S.C. § 470 <i>et seq.</i> ; 36 C.F.R.- Part 800	Applicable	Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment.	These standards are applicable to any potential historic, archeological, or cultural resources on the site. Features with potential historical/cultural significance will be evaluated during the design phase. Should this alternative impact properties/structures determined to be protected by these standards, activities will be coordinated with the Advisory Council on Historic Preservation.
State Regulations				
Massachusetts Wetlands Protection Act and Regulations	M.G.L. ch. 131, § 40; 310 CMR 10.00	Applicable	These regulations protect wetland resource areas subject to protection under MGL c. 131 § 40, as well as a 200-foot buffer zone from a waterway and a 100-foot buffer zone Bordering Vegetated Wetlands, from physical alteration so their beneficial functions can be preserved. Specific wetland resource areas to be affected include: Land under Water, Bank, Bordering Vegetated Wetlands, and Land Subject to Flooding.	The remedial activities will meet all of the performance standards for each State wetland resource area protected, as well as each area's respective buffer zones, under these standards. Performance standards will be met by the use of sediment and erosion control measures during removal activities and restoration of wetland resource area through backfilling and revegetation
Antiquities Act and Regulations; Massachusetts Historical Commission. Antiquities Act and Regulations, Protection of Properties Included in the State Register of Historic Places	M.G.L. ch. 9, §§26-27, 950 CMR §70.00; M.G.L. ch. 9, §§26-27; 950 CMR §71.00	Relevant and Appropriate	Projects which are state-funded or state-licensed or which are on state property must eliminate, minimize, or mitigate adverse effects to properties listed in the register of historic places. Establishes requirements for review of impacts for state-funded or state-licensed projects and projects on state-owned property. Establishes state register of historic places. Establishes coordination with the National Historic Preservation Act.	These standards are relevant and appropriate to any potential historic, archeological, or cultural resources on the site. Features with potential historical/cultural significance will be evaluated during the design phase. Should this alternative impact the historical, architectural, archaeological, or cultural qualities of a property, whether listed or not, activities will be coordinated with the Massachusetts Historical Commission.

ACTION SPECIFIC
Surface Water - Federal Regulations

Compliance with ARARS – AOC 55C – Non-time critical removal

Requirement/Guideline	Citation	Status	Requirement/Guideline Synopsis	Action to be Taken to Attain ARAR/TBC
Clean Water Act , National Recommended Water Quality Criteria	33 USC §1251 <i>et seq.</i> , 40 CFR 122.44	Relevant and Appropriate	National Recommended Water Quality Criteria for the protection of aquatic life and human health.	This alternative will comply with the National Recommended Water Quality Criteria in the surface waters at AOC-55C during and after completion of remedial activities, by monitoring water quality during and after the action, and the treatment (if necessary) of any water discharged back into surface water as a result of dewatering activities.
Clean Water Act § 402 National Pollutant Discharge Elimination System (NPDES)	33 U.S.C. § 1342; 40 CFR 122-125, 131	Applicable	These regulations contain discharge limitations, monitoring requirements, and best management practices for discharges into navigable waters.	This alternative will comply with this regulation by monitoring the quality of and treating (if necessary) any water discharged back into federal jurisdictional wetlands or surface water as a result of dewatering activities.
CWA; General Pretreatment Regulations for Existing and New Sources of Pollution	40 C.F.R. § 403	Applicable	Standards for the discharge of contaminated water into a Publicly Owned Treatment Works (POTW).	These standards will apply if water from the remedial action, such as from dewatering or other processing of sediment and wetland soils, is collected and shipped for disposal to a POTW.
CWA, Phase II Stormwater Standards	40 C.F.R. 9, 122, 123 and 124	Applicable if over one acre is disturbed; Relevant and Appropriate if less than one acre is disturbed	Stormwater control standards for construction projects between one and five acres	Any remedial action that exposes soil will meet these standards to control stormwater runoff and prevent erosion.

Compliance with ARARS – AOC 55C – Non-time critical removal

Requirement/Guideline	Citation	Status	Requirement/Guideline Synopsis	Action to be Taken to Attain ARAR/TBC
Surface Water - State Regulations				
Massachusetts Surface Water Quality Standards	314 CMR 4.00	Relevant and Appropriate	These standards designate the most sensitive uses for which the various waters of the Commonwealth shall be enhanced, maintained, or protected. Minimum water quality criteria required to sustain the designated uses are established.	This alternative will comply with the State standards in the surface waters at AOC-55C by monitoring water quality during the action, and the treatment (if necessary) of any water discharged back into surface water as a result of dewatering activities.
Massachusetts Clean Water Act Water Quality Certification Regulations	314 CMR 9.00	Applicable	For discharge of dredged or fill material, there must be no practicable alternative with less adverse impact on aquatic ecosystem; must take practicable steps to minimize adverse impacts on wetlands or land under water; must be no substantial adverse impact to physical, chemical, or biological integrity of surface waters.	This alternative will comply with the State water quality criteria in the surface waters at AOC-55C during and after completion of remedial activities, by monitoring water quality during and after the action, and the treatment (if necessary) of any water discharged back into surface water as a result of dewatering activities.
Massachusetts Surface Water Discharge Permit Program	314 CMR 3.00	Applicable	These regulations provide that discharges to waters of the Commonwealth shall not result in exceedances of MA Surface Water Quality Standards (MSWQS).	Any discharges to the AOC55C wetland will comply with the State MSWQS standards in the surface, and the treatment (if necessary) of any water discharged back into surface water as a result of dewatering activities.
Pretreatment Standards for Wastewater Operators and Indirect Dischargers	314 CMR 12.00	Applicable	Standards for the discharge of contaminated water into a Publicly Owned Treatment Works (POTW).	These standards will apply if water from the remedial action, such as from dewatering or other processing of sediment and wetland soils, is collected and shipped for disposal to a MA POTW.
Soil/Sediment - Federal Regulations				
RCRA Hazardous Waste Regulations	40 CFR 260-264, 268	Applicable	Establishes requirements for the identification and listing of hazardous waste; provides standards applicable to generators of hazardous waste, transporters of hazardous waste, and owners and operators of hazardous waste treatment, storage, and disposal facilities; identifies hazardous wastes that are restricted from land disposal.	Because Massachusetts has been authorized to run the RCRA base program, hazardous materials will be managed according to the Massachusetts Hazardous Waste Management Regulations requirements listed below.
Soil/Sediment - State Regulations				
MA Solid Waste Management Regulations	310 CMR 19.000	Relevant and Appropriate	These regulations outline the requirements for construction, operation, closure, and post closure at solid waste management facilities in the Commonwealth of MA.	All solid waste will be removed from the site to meet closure requirements. No post-closure requirements will be needed.
Massachusetts Hazardous Waste Management Regulations (HWMR) Hazardous Waste Determination ⁽¹⁾	310 CMR 30.100	Applicable	The federal RCRA program has been delegated to the Commonwealth of Massachusetts. These regulations establish the requirements for determining whether wastes are hazardous.	Removed sediment would be analyzed to determine whether the waste should be classified as hazardous or non-hazardous. Based on current data, the sediment is not expected to be characterized as hazardous..

Massachusetts HWMR Requirements for Generators of Hazardous Wastes ⁽¹⁾	310 CMR 30.300, 30.340	Applicable	These regulations contain requirements for generators of hazardous waste. The regulations apply to generators of sampling waste and also apply to the accumulation of waste prior to off-site disposal.	Removed sediment will be analyzed to determine whether the waste should be classified as hazardous or non-hazardous, in order to comply with the regulations regarding accumulation of waste prior to off-site disposal.
Massachusetts HWMR General standards for hazardous waste facilities	310 CMR 30.500	Applicable	General facility requirements for waste analysis, security measures, inspections, and training requirements	Any remedial action completed on hazardous waste will be conducted in accordance with this requirement. All workers will be properly trained. If excavated soil/sediment is considered hazardous waste, it will be stabilized and disposed of off-site.
Massachusetts HWMR Special requirements for wastewater treatment units	310 CMR 30.605	Relevant and Appropriate	Standards for wastewater treatment units for the treatment of hazardous waste	If as part of this remedial action, it is necessary to treat water contaminated with hazardous wastes prior to discharge to surface waters, the standards of these regulations will be met.
Massachusetts HWMR Waste piles	310 CMR 30.640	Applicable	Establishes requirements for waste piles containing hazardous waste	Waste piles will be handled and managed in compliance with these standards.
Massachusetts HWMR Containers	310 CMR 30.680	Applicable	Establishes requirements for management of containers such as drums that would hold field-generated hazardous wastes.	Any hazardous waste containers used for holding contaminated soil/sediment, water, or other waste will comply with these requirements.
Massachusetts HWMR Management, storage, and treatment in tanks	310 CMR 30.690	Applicable	These standards specify requirements for tank systems used to store or treat hazardous waste. Provides specifications for design and installation of tank systems. Requires secondary containment, leak detection systems, and inspections. Identifies general operating requirements, and closure and post-closure care.	Design and installation requirements will be followed if tanks are used to store or treat hazardous wastes generated as part of this alternative. Specifications will include secondary containment, if necessary.
Massachusetts HWMR Supplemental requirements for hazardous waste management facilities	310 CMR 8.03	Relevant and Appropriate	This regulation outlines the additional requirements that must be satisfied in order for a RCRA facility to comply with the NPDES regulation.	Any water treatment facilities used as part of this remedial alternative to treat hazardous waste will meet these regulations through a monitoring program and engineering controls, if necessary.

Sediment - Other Guidance				
Contaminated Sediment Remediation Guidance for Hazardous Waste Sites	USEPA, 2005	TBC	Provides technical and policy guidance for making risk management decisions for contaminated sediment sites. Primarily intended for federal and state project managers considering remedial response actions or non-time-critical removal actions under CERCLA.	EPA guidance has been considered in the development of the remedial alternatives for the site.
Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites	USEPA, 2002	TBC	Presents 11 risk management principles that remedial project managers, on-scene coordinators, and RCRA corrective action project managers should carefully consider when planning and conducting site investigations and selecting and implementing a response.	EPA guidance has been considered in the development of the remedial alternatives for the site.
USEPA Contaminated Sediment Management Strategy	USEPA, 1998	TBC	Establishes four goals to manage the problem of contaminated sediment, and describes actions the Agency intends to take to accomplish those goals.	EPA guidance has been considered in the development of the remedial alternatives for the site.
Massachusetts Erosion and Sediment Control Guidance		TBC	Standards for preventing erosion and sedimentation.	Remedial actions will be managed to control erosion and sedimentation.
Air - Federal Regulations				
Clean Air Act - National Emissions Standards for Hazardous Air Pollutants	40 CFR 63	Applicable	Regulates air emissions from area, stationary, and mobile sources; authorizes the U.S. EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment.	Will be complied with during any remedial activity involving excavation.
Air - State Regulations				
Massachusetts Ambient Air Quality Standards	310 CMR 6.00	Applicable	Sets primary and secondary standards for emissions of certain contaminants, including particulate matter.	Remedial activities, including excavation/dredging and processing of soil/sediment, will be implemented in accordance with these rules. No air emissions from remedial activities will cause ambient air quality standards to be exceeded. Dust standards will be complied with during excavation of materials at the Site.
Massachusetts Air Pollution Control Regulations	310 CMR 7.00	Applicable	These regulations set emission limits necessary to attain ambient air quality standards	Remedial activities, including excavation/dredging and processing of soil/sediment, will be managed to meet the standards for visible emissions (310 CMR 7.06), dust, odor and demolition (310 CMR 7.09), and noise (310 CMR 7.10).

Notes:

1. These provisions are carried out in conjunction with the 1997 guidelines outlined in the MADEP Policy #COMM-97-001, *Reuse and Disposal of Contaminated Soil at Massachusetts Landfills*, which supersedes the MADEP Policy # Bureau of Waste Practices BWP-94-037. Policy #COMM-97-001 maintains consistency with the 1995 Policy #COMM-94-007, *Interim Policy for Sampling, Analysis, Handling and Tracking Requirements for Dredged Sediment Reused or Disposed at Massachusetts Permitted Landfills*, as described in Section 6.3.6.1, subsection entitled "Off-Site Disposal."