TETRA TECH

December 7, 2020

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SUBJECT: Notice of Availability
REVISED PHASE III REMEDIAL ACTION PLAN
National Fireworks Site, Hanover, MA [Release Tracking Number 4-0000090]

To Whom it May Concern:

In accordance with 40 CMR 30.1403(3)(e), this letter serves as written notification of the availability of the above-referenced report. The report can be accessed through the Massachusetts Department of Environmental Protection's (MassDEP's) electronic database using the following link:

https://eeaonline.eea.state.ma.us/portal#!/wastesite/4-0000090

Please email me if you have any questions about the submitted information.

Sincerely,

Ronald J Marnicio

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Attachment - Executive Summary of the December 4, 2020 Revised Phase III RAP

cc: MassDEP SERO – Deborah A. Marshall-Hewitt (electronically)
MassDEP SERO – Leonard J. Pinaud (electronically)
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EXECUTIVE SUMMARY

Background

The Fireworks Site (Site) comprises approximately 240 acres in the Towns of Hanover and Hanson, in Plymouth County, Massachusetts. The Site is bounded on the east by Winter Street, on the west by King Street, on the north by First Street, and on the south by Factory Pond and the Factory Pond Dam. The northern portion of the Site is currently owned by more than 40 different public and private entities, including commercial/industrial operations and the Town of Hanover. Most of the southern portion of the Site is managed by the Hanover Conservation Commission (Con Com) for conservation and passive recreational uses. The Site is comprised of both surface water bodies (i.e., ponds and streams and associated wetlands) and upland areas.

The Former Fireworks Facility was first used for the manufacturing of fireworks and pyrotechnics starting in 1907. Thereafter, the Site was used intermittently for research and development and the manufacturing, storage and testing of munitions for the U.S. Department of Defense (DoD) from World War II until it closed around 1970. Past activities at the Former Fireworks Facility have resulted in releases of various chemical contaminants (primarily mercury and lead) and military munitions.

The Site is being remediated under the Massachusetts Contingency Plan (MCP) and is identified by Release Tracking Number 4-0000090. This Revised Phase III Remedial Action Plan (RAP) was developed in accordance with the MCP to identify and evaluate effective remedial action alternatives for the Site. In accordance with the MCP, this RAP was preceded by the Phase I Initial Site Investigation and Tier Classification prepared in July of 1997 and a sequence of phased and focused Phase II Comprehensive Site Assessment (CSA) activities that began in November of 1998 and continued through June of 2018. Earlier Draft Phase III RAPs were submitted to the Massachusetts Department of Environmental Protection (MassDEP) in 2007, 2009 and 2019.

A Release Abatement Measure (RAM) was initiated in May of 2017 to address the presence of munitions and explosives of concern (MEC) and material potentially presenting an explosive hazard (MPPEH) in two areas in the southern portion of the Site. Because of the greater than expected number and variety of military munitions and munitions-related items encountered during the initial stages of the RAM, MassDEP determined that all ongoing and future munitions response work should be conducted as part of an Immediate Response Action (IRA). The munitions response IRA for the upland areas in the southern portion of the Site is ongoing at the time of this writing. The ongoing and future work to address the presence of MEC and MPPEH in the upland areas of the Site and in the nearshore pond areas of Middle Factory Pond (MFP) are not addressed in this Phase III RAP because it is assumed that this work will have been completed prior to the start of the selected Final Remedy.

This Revised Phase III RAP addresses the presence of mercury and a set of co-located contaminants remaining in the Site's sediment and soil following the completion of the IRA and the potential dispersed presence of MEC/MPPEH in Factory Pond. The Revised Phase III RAP also evaluates alternatives for reducing the levels of contamination to protect current and future users of the Site from direct contact exposures and to reduce the body burden of mercury in aquatic and terrestrial species dependent on the Site's aquatic habitats.

Remedial Objectives and Remedial Goals

This Revised Phase III RAP presents updated conceptual site models (CSMs) for exposure to human and ecological receptors to reflect changes in the Site's usage and physical and environmental characteristics over the past 10 years. The more recent discovery of the widespread presence of MEC and MPPEH in the southern portion of the Site and the redistribution of chemical contaminants in the Site's ponds and streams resulting from the major flooding that took place in 2010 (as evidenced by the "re-baselining" sampling of sediment, soil and groundwater performed in 2015) were the two biggest changes reflected in the updated CSMs. The current and reasonably foreseeable future Site users were identified in the updated CSMs as commercial workers, commercial customers, utility workers, construction workers, trespassers, recreational users and recreational fisherman. Numerous terrestrial, semi-aquatic and aquatic species inhabit the Site.

This Revised Phase III RAP also presents the Site-specific remedial objectives (ROs) for each impacted environmental medium (i.e., soil, groundwater, and sediment) at the Site that served as the basis for the required Phase III evaluations. The principal ROs identified for the Site's soil, sediment and groundwater were to:

- Achieve a Permanent Solution with Conditions;
- Recommend a remedial action alternative that does not rely on on-site disposal, contaminant isolation or containment when a feasible alternative exists;
- Comply with applicable local, state and federal regulatory requirements;
- Reduce the concentrations of chemicals of concern (COCs) in the soil and groundwater to levels at or below their MCP Upper Concentration Limits;
- Eliminate sources of COC contamination in soil indicated to be a significant on-going source of contamination to the shallow groundwater;
- Reduce or minimize exposure to COCs in the Site soil and sediment such that they do not pose projected cancer or non-cancer risks greater than the target risk thresholds established for the current or potential future users of the Site;
- Reduce the average surficial sediment mercury concentration in each aquatic reach to less than the 4 mg Total Mercury/Kg Sediment RG to contribute to the reduction of the Site-specific fish tissue mercury concentration in largemouth bass to the background value for Massachusetts;
- Improve aquatic and wetland habitats on the Site to a condition that could support the eventual elimination of the site-specific fish consumption advisory for mercury; and
- Reduce, to the extent feasible, the concentrations of COCs in soil and sediment to levels that achieve or approach background.

Since the Phase II CSA concluded that there were no significant risks from surface water and there has been no identified change that may have impacted that conclusion, ROs were not required for surface water.

Numerical remedial goals (RGs) also have been defined to establish the concentrations of COCs in the impacted environmental media that correspond to the achievement of certain of the ROs or to establish the threshold for what is protective of the human and ecological receptors that may utilize the Site. Soil RGs associated with the exposure media and human receptors highlighted by the updated CSMs were previously

presented in Appendix 9A of the 2018 Final Supplemental Phase II Report. Environmental RGs were developed using the results of field studies and predictive modeling for the ecological receptors and assessment endpoints that were evaluated in the Stage II Environmental Risk Characterization (ERC) performed for the 2005 Draft CSA Report. The development of the environmental RGs is documented in Appendix A to this Revised Phase III RAP. The surficial sediment mercury RG that was designed to achieve a condition of "no significant risk" was presented in Appendix 3D of the 2018 Final Supplemental Phase II Report.

Technology Screening and Comprehensive Remedial Alternatives

An initial screening of remedial technologies for soil, groundwater and sediment was conducted in accordance with Section 40.0856 of the MCP to identify technologies that are reasonably likely to be feasible to implement based on the contaminants present at the Site, the environmental media that were contaminated, and the characteristics of the areas of the Site where the contamination was located. Technologies that were not eliminated by the screening step were then considered in combination and assembled into comprehensive response alternatives. The COCs for which RGs or a target background level were developed for the Final Remedy for each impacted environmental medium included thirteen metals, seven volatile organic compounds (VOCs), five semi-volatile organic compounds (SVOCs), and potentially explosive compounds.

Comprehensive response alternatives for achieving the identified ROs were assembled to address the identified ROs for each environmental medium. Three overall remedial action alternatives were developed for this Revised Phase III RAP:

Comprehensive Remedial Alternative 1:	Temporary Solution (Minimal Remedial Activities)
Comprehensive Remedial Alternative 2:	Permanent Solution with Conditions (Clean-Up to Achieve Project-Specific Remediation Objectives)
Comprehensive Remedial Alternative 3:	Permanent Solution with Conditions (Clean-Up to Achieve or Approach Background)

Comprehensive Remedial Alternative 1: As described in 310 Code of Massachusetts Regulations (CMR) 40.1030(2)(e), this alternative represents the minimum response required to establish a Temporary Solution under the MCP assuming the current nature and distribution of contaminants at the Site remain unchanged. Such a Temporary Solution would require a finding of "No Substantial Hazard" relative to the current Site conditions. However, in accordance with 310 CMR 40.0852(2), a Temporary Solution should only be considered if a Permanent Solution is not feasible. Since the alternatives that could lead to a Permanent Solution for soil, groundwater and sediment (described below) are feasible, Comprehensive Remedial Alternative 1 was not developed further or evaluated systematically in this Revised Phase III RAP.

Comprehensive Remedial Alternative 2: This alternative would center on the active removal of soil and sediment to achieve the chemical-specific RGs and the project ROs, the processing of that soil and sediment for transport and off-site disposal, and the stabilization and/or restoration of the remediated areas.

Soil - The three areas of the Site requiring soil remediation are the ECC Overbank Soil Area, the PZ-24 groundwater Upper Concentration Limit (UCL) exceedance area, and the DP-MW1 groundwater UCL exceedance area. The primary components of Comprehensive Remedial Alternative 2 for soil remediation include (as needed):

- Excavating soil to remove a continuing source of contaminant release or to achieve the established risk-based contaminant limits;
- Performing confirmatory sampling at the exposed limits of excavation for the respective COCs;
- Transporting excavated soil not meeting the established on-site re-use requirements to an off-site permitted facility for disposal;
- Backfilling and stabilizing the excavations with "clean" material;
- Restoring the disturbed areas; and
- Monitoring the recovery of restoration plantings.

Sediment - Surficial sediment mercury concentrations within each aquatic reach at the Site currently exceed the established Site-specific RG. Total mercury was used as the design basis sediment COC for the ponds and streams since the mercury contamination is most widespread and is directly linked to the current fish consumption advisories for the Site. In addition, the removal of sediment to meet the surficial sediment mercury RG in each reach also would reduce the surface area weighted average of the other COCs due to their co-location. The reaches where sediment remediation is required are the:

1. Eastern Channel Corridor;
2. Lower Drinkwater River Corridor;
3. Lily Pond; and
4. Factory Pond (Upper, Middle and Lower).

The primary components of Comprehensive Remedial Alternative 2 for the areas requiring sediment remediation include:

- Preparing the required permits and plans based on an approved Phase IV Remedy Implementation Plan and remedial design;
- Implementing additional site improvements and establishing work laydown areas;
- Removing the causes of the remaining dispersed metallic anomalies detected in the ponds that may be MEC or MPPEH;
- Excavating sediment to achieve the surficial sediment mercury RG within each reach;
- Controlling silt migration;
- Performing confirmatory sampling of the residual surficial sediment;
- Dewatering the excavated sediment to acceptable levels;
- Stabilizing and/or solidifying the excavated sediment prior to transport and off-site disposal, as needed;
- Treating the separated wastewater;
- Analytically testing the excavated material for waste acceptance parameters;

- Transporting the excavated sediments to a suitably permitted off-site non-hazardous waste or hazardous waste disposal or treatment facility;
- Backfilling and stabilizing the excavated pond and stream bottom areas with suitable material to promote biological recovery;
- Performing restoration activities in the areas supporting the sediment remediation in accordance with an approved remedial design;
- Monitoring the success of restoration efforts;
- Maintaining the warning signs regarding the fish consumption advisory of the Massachusetts Department of Public Health at public access points to the river, channel, and ponds; and
- Establishing any required Activity and Use Limitations (AULs) for the Site.

Groundwater - The observed groundwater UCL exceedances would be eliminated by the soil source removal associated with this alternative.

Comprehensive Remedial Alternative 3: This alternative is very similar in its process components to Comprehensive Remedial Alternative 2. However, a greater quantity of soil and sediment would need to be removed for Alternative 3 as compared to Alternative 2 since background levels for soil and sediment are, in general, lower than the risk-based RGs. For soil, the target soil background levels for metals and polycyclic aromatic hydrocarbons (PAHs) are the default background concentrations for "natural" soil published by MassDEP. For sediment, the site-specific sediment total mercury background concentration was established as 0.62 mg/Kg.

The quantities of sediment and soil that must be removed and processed to achieve the project-specific RGs and identified ROs for Comprehensive Remedial Alternatives 2 and 3 were estimated. These quantities included the:

1. In-situ volume of sediment and soil that must be removed to achieve the target contaminant levels for each alternative;
2. On-shore volume of bulked materials that must be handled, processed and disposed;
3. Amount of aquatic vegetation that must be removed along with the sediment; and
4. Estimated breakdown of the excavated sediment and soil by waste type classification for purposes of projecting disposal requirements and costs.

Detailed Evaluation of the Alternatives Relative to the MCP Criteria

A detailed evaluation of the identified comprehensive remedial alternatives was performed, as specified in Section 40.0857 of the MCP. This detailed evaluation was conducted to provide the basis for the recommendation of a remedial action alternative. The detailed evaluation compares the remedial alternatives using the criteria described in 310 CMR 40.0858, which specifies that the screened alternatives be evaluated using the following eight criteria:

1. Comparative effectiveness;
2. Comparative short-term and long-term reliability;

3. Comparative difficulty in implementation;
4. Comparative costs of implementing the alternative;
5. Comparative risks;
6. Comparative benefits;
7. Comparative timeliness; and
8. Relative impact on non-pecuniary interests (such as aesthetic values)

All three of the alternatives were qualitatively ranked for each of these eight criteria. Five qualitative rankings were used for this evaluation:

HIGH	Indicates that the alternative would have good performance
MODERATE / HIGH	Indicates that the alternative would have between satisfactory and good performance
MODERATE	Indicates that the alternative would have satisfactory performance
LOW / MODERATE	Indicates that the alternative would have marginally satisfactory performance
LOW	Indicates that the alternative would have unsatisfactory performance

One of these qualitative rankings was assigned for each criterion for each alternative in consideration of calculated material volumes, extents of disturbed or remediated areas, estimated costs, and the projected positive or negative impacts of the implementation of the alternative. Professional judgment based on previous similar sediment remediation experience also was applied in the criterion assignments.

The results of the comparative evaluation of the three comprehensive remedial alternatives against the eight MCP criteria are presented in Table ES-1. Based on the comparative evaluation of these MCP evaluation criteria, Comprehensive Remedial Alternative 1 is not protective and does not achieve a Permanent Solution. The fact that it is cheapest, easiest to implement and would create the least new impacts does not counterbalance this basic shortfall. Comprehensive Remedial Alternatives 2 and 3 are close based on the comparative evaluation. Alternative 2 is rated somewhat better than Alternative 3 for the criteria of Difficulty of Implementation, Cost, Risks (with respect to the amount of risk reductions) and Impacts on Non-Pecuniary interests. These two alternatives are rated essentially the same relative to the criteria of Effectiveness, Short-Term and Long-Term Reliability, Benefits and Timeliness. Alternative 3 is not rated better than Alternative 2 relative to any of the criteria considering all of the factors associated with the criteria.

Detailed Evaluation of the Alternatives Relative to Achievement of the ROs

The results of the comparative evaluation of the three comprehensive remedial alternatives against the site-specific soil, groundwater and sediment ROs are presented in Table ES-2. Comprehensive Remedial Alternative 1 does not meet the vast majority of the ROs for soil, groundwater or sediment. Comprehensive Remedial Alternatives 2 and 3 are very similar relative to achieving the ROs based on the comparative evaluation as both of these alternatives meet most of the ROs. The primary differences between Comprehensive Remedial Alternative 2 and Comprehensive Remedial Alternative 3 are:

- Alternative 2 approaches background for soil while Alternative 3 achieves background for soil.
- Alternative 2 approaches background for sediment while Alternative 3 achieves background for sediment.
- Alternative 3 is protective of more of the most sensitive ecological species with respect to post-remedy sediment quality than Alternative 2 although both alternatives are protective of the majority of the ecological species and assessment endpoints considered.
- The estimated cost of Alternative 2 in 2020 dollars is $76,100,000, with a range of $64,700,000 to $95,100,000 (-15%/+25%). The estimated cost of Alternative 3 is $87,900,000, with a range of $74,700,000 to $109,900,000 (-15%/+25%). The breakdown of the estimated costs for Comprehensive Remedial Alternatives 2 and 3 for the primary cost components are presented in Table ES-3.
- The schedule for Comprehensive Remedial Alternatives 2 and 3 reflects one year for the remedial design and procurement efforts and approximately one- and one-half additional years for the remedial actions and site restoration. Because of the greater quantities of sediment and soil to be removed for Comprehensive Remedial Alternative 3, approximately two full years are estimated to be required for the remedial actions and site restoration.

Comprehensive Remedial Alternative 2 includes the removal of soil in the ECC Overbank Soil Area and in the soil and groundwater UCL exceedance areas to levels protective of current or future people accessing the Site but not necessarily to achieve all identified ecological RGs. The ECC Overbank Soil Area is in an industrial area with highly disturbed isolated low-quality habitat, and the two UCL exceedance areas are relatively small in size. Alternative 2 also reduces the average surficial sediment mercury concentration in each aquatic reach to less than the 4 mg Total Mercury/Kg Sediment RG. This level is protective of human health and all of the identified ecological receptor groups except for the piscivorous mammals (mink) and the piscivorous birds (belted kingfisher), which have very low risk-based remediation goals for mercury.

Comprehensive Remedial Alternative 3 includes the removal of soil and sediment to background levels (i.e., 0.3 mg/Kg for soil and 0.62 mg/Kg for surficial sediment). The background level for soil is less than the RG established for all of the ecological species of interest (e.g., the short-tailed shrew, the American woodcock, soil invertebrates and plants). The background level of total mercury in the surficial sediment is higher than the RGs established for the piscivorous mammals and piscivorous birds. As such, Alternatives 2 and 3 are equally protective of ecological species relative to the sediments. The additional ecological benefit of Alternative 3 is that it is also protective of more terrestrial ecological species relative to soil.

Based on this comparative evaluation of Alternatives 2 and 3 as presented in Tables ES-1 and ES-2, Comprehensive Remedial Alternative 2 was identified as the recommended alternative for the Site because it would achieve satisfactory performance with respect to all of the detailed evaluation criteria and meets all of the ROs identified for the Site at the lowest cost and with the least adverse impact to the Site. Following the required feasibility evaluation and benefit-cost analysis, Alternative 2 remained the recommended alternative for the Site. This alternative is protective of human health and the environment and it meets the Site-specific ROs and RGs, including the Site-specific technically robust surficial sediment mercury RG developed to support a Permanent Solution. Alternative 2 also reduces COC concentrations in soil to levels at or below applicable UCLs, significantly reduces human health risks and ecological risks from their present levels, is projected to take the least time, and the costs are proportionate to the benefits of implementing this remedial action alternative.

Licensed Site Professional (LSP) Opinion

This Revised Phase III RAP was prepared in accordance with the pertinent provisions of the MCP and the Phase III performance standards described in 310 CMR 40.0853. This Revised Phase III RAP describes and documents the information, reasoning and results used to identify and evaluate remedial action alternatives in sufficient detail to support the selection of a proposed comprehensive remedial alternative. It is the opinion of the LSP-of-Record that the recommended comprehensive remedial alternative documented in this Revised Phase III RAP will achieve a Permanent Solution with Conditions.

Table ES-1. Comparative Evaluation of the Comprehensive Remedial Alternatives Against the MCP Evaluation Criteria

EVALUATION CRITERION	COMPREHENSIVE REMEDIAL ALTERNATIVE 1	COMPREHENSIVE REMEDIAL ALTERNATIVE 2	COMPREHENSIVE REMEDIAL ALTERNATIVE 3
Comparative Effectiveness	LOW	HIGH	HIGH
Comparative Short-Term and Long-Term Reliability	LOW	MODERATE / HIGH	MODERATE / HIGH
Comparative Difficulty in Implementation	HIGH	MODERATE /HIGH	MODERATE
Comparative Costs of Implementation	NOT ESTIMATED	LOW / MODERATE	LOW
Comparative Risks	LOW	HIGH	HIGH
Comparative Benefits	LOW	HIGH	HIGH
Comparative Timeliness	LOW	HIGH	HIGH
Relative Impact on Non-Pecuniary Interests	HIGH	MODERATE / HIGH	MODERATE

Table ES-2. Comparative Evaluation of the Comprehensive Remedial Alternatives Against the Site-Specific Remedial Objectives			
SITE-SPECIFIC REMEDIAL OBJECTIVES	**COMPREHENSIVE REMEDIAL ALTERNATIVE 1**	**COMPREHENSIVE REMEDIAL ALTERNATIVE 2**	**COMPREHENSIVE REMEDIAL ALTERNATIVE 3**
SOIL			
1. Reflect a strong preference for a remedial action alternative that does not rely on on-site disposal, contaminant isolation or containment when a feasible alternative exists	Does NOT meet the RO since no remedial action	Meets the RO	Meets the RO
2. Comply with the applicable local, state and federal regulatory requirements pertaining to the remedial action alternative	Meets the RO only as a Temporary Solution	Meets the RO as a Permanent Solution	Meets the RO as a Permanent Solution
3. Reduce the concentrations of COCs in soil to levels at or below UCLs	Does NOT meet the RO (contamination only contained)	Meets the RO	Meets the RO
4. Reduce levels of COCs in soil that may be acting as a potential on-going source of sediment contamination to the shallow groundwater or surface water bodies	Does NOT meet the RO (potential for leaching only reduced)	Meets the RO	Meets the RO
5. Reduce or minimize exposure to COCs in soils that are sufficiently contaminated such that they pose cancer or non-cancer risks greater than the target risk thresholds to the identified current or potential future users of the upland portions of the Site	Meets the RO	Meets the RO	Meets the RO
6. Reduce (to the extent practical) the risk to the environmental receptor groups identified in the 2005 ERC as having a potential significant risk of biological significant harm	Does NOT meet the RO (aquatic food chains not significantly impacted)	Meets the RO	Meets the RO
7. Reduce, to the extent feasible, the concentrations of COCs in the soil to levels that achieve or approach background	Does NOT meet the RO	Meets the RO (concentrations approach background levels)	Meets the RO (concentrations achieve background levels)

Table ES-2. Comparative Evaluation of the Comprehensive Remedial Alternatives Against the Site-Specific Remedial Objectives			
SITE-SPECIFIC REMEDIAL OBJECTIVES	**COMPREHENSIVE REMEDIAL ALTERNATIVE 1**	**COMPREHENSIVE REMEDIAL ALTERNATIVE 2**	**COMPREHENSIVE REMEDIAL ALTERNATIVE 3**
GROUNDWATER			
1. Comply with the applicable local, state and federal regulatory requirements pertaining to the remedial action alternative	Probably would NOT meet the RO	Meets the RO	Meets the RO
2. Reduce concentrations of COCs in the shallow groundwater to levels at or below their compound-specific UCLs	Probably would NOT meet the RO	Meets the RO	Meets the RO
SEDIMENT			
1. Reflect a strong preference for a remedial action alternative that does not rely on on-site disposal, contaminant isolation or containment when a feasible alternative exists	Does NOT meet the RO since no remedial action	Meets the RO	Meets the RO
2. Comply with the applicable local, state and federal regulatory requirements pertaining to the remedial action alternative	Meets the RO only as a Temporary Solution	Meets the RO as a Permanent Solution	Meets the RO as a Permanent Solution
3. Reduce concentrations (to the extent practical) in the sediments to the risk-based threshold values for the environmental endpoints that were identified in the ERC as having potentially significant risk of biological significant harm	Does NOT meet the RO	Meets the RO for Nearly All of the Identified Species	Meets the RO for Nearly All of the Identified Species
4. Reduce or bind up the mercury in the Site sediments to minimize the potential conversion of mercury to methylmercury	Does NOT meet the RO since no remedial action	Meets the RO	Meets the RO
5. Reduce or minimize direct contact exposure to COCs in the shoreline sediments that are sufficiently contaminated such that they pose cancer or non-cancer risks greater than the target risk thresholds to the identified current or potential future users of the water bodies (e.g., recreational swimmers or waders)	Does NOT meet the RO since no remedial action	Meets the RO	Meets the RO

Table ES-2. Comparative Evaluation of the Comprehensive Remedial Alternatives Against the Site-Specific Remedial Objectives			
SITE-SPECIFIC REMEDIAL OBJECTIVES	**COMPREHENSIVE REMEDIAL ALTERNATIVE 1**	**COMPREHENSIVE REMEDIAL ALTERNATIVE 2**	**COMPREHENSIVE REMEDIAL ALTERNATIVE 3**
6. Reduce the reach-specific average surficial sediment concentrations to the RG of 4 mg/Kg total mercury	Does NOT meet the RO since no remedial action	Meets the RO	Meets the RO
7. Reduce, to the extent feasible, the concentrations of COCs in the sediment to levels that achieve or approach background	Does NOT meet the RO	Meets the RO (concentrations approach background levels)	Meets the RO (concentrations achieve background levels)
8. Improve aquatic and wetland habitats on the Site to a state that will support the eventual elimination of the site-specific fish consumption advisory for mercury through remedial measures that will reduce the amount and/or the bioavailability of mercury	Does NOT meet the RO	Meets the RO	Meets the RO

Table ES-3. Breakdown of the Estimated Cost of Comprehensive Remedial Alternatives 2 and 3 for the Primary Cost Components		
Cost Component	**Comprehensive Remedial Alternative 2**	**Comprehensive Remedial Alternative 3**
Task A. Pre-Construction, Site Preparation and Field Oversight	22.6%	21.1%
Task B. Pond and Stream Excavation and Excavated Material Disposal	67.6%	63.3%
Task C. Upland Excavation and Excavated Material Disposal	4.6%	11.1%
Task D. Not Used	-	-
Task E. Decontamination, Site Clean-Up and Project Closeout	2.7%	2.3%
Task F. Post-Remediation Restoration and Recovery Monitoring	2.0%	1.7%
Task G. Unexploded Ordnance (UXO) Support	0.5%	0.5%