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RECORD OF DECISION RESPONSIVENESS SUMMARY

A. PREFACE:

In August 1999, the U.S. EPA presented a Proposed Plan for the long-term cleanup of the Eastern Surplus Company Superfund Site in Meddybemps, Maine. The Proposed Plan was based upon the remedial investigation and feasibility study (RI/FS) for the Site. All documents which were relied upon in the selection of the cleanup action presented in the Proposed Plan were placed in the Administrative Record, which is available for public review at the EPA Records Center at 1 Congress Street in Boston, Massachusetts and the Calais Public Library on Union Street in Calais, Maine.

A 30-day comment period was held from August 20, 1999 to September 20, 1999. A public hearing was held on September 8, 1999. Based upon a request from the Passamaquoddy Tribe, EPA extended the comment period for an additional 90 days. The comment period for the Proposed Plan ended on December 20, 1999.

The purpose of this Responsiveness Summary is to document EPA's responses to the questions and comments raised during the public comment period. EPA considered all of the comments summarized in this document before selecting a final remedial alternative to address contamination at the Site.

This Responsiveness Summary is organized into the following sections:

B. Overview of the Remedial Alternatives Considered in the FS and Proposed Plan, Including the Preferred Alternative - This section briefly outlines the remedial alternatives evaluated in the FS and the Proposed Plan, including EPA's preferred alternative.

C. Site History and Background on Community Involvement and Concerns - This section provides a brief history of the Site and an overview of community interests and concerns regarding the Site.

D. Summary of Comments Received During the Public Comment Period - This section summarizes, and provides EPA's response to, the oral and written comments received from the public during the comment period. Part A presents the comments received from citizens and local officials; Part B presents comments received from the Passamaquoddy Tribe; and Part C presents comments received from the Maine Department of Environmental Protection.

E. The Selected Remedy's Changes to the Proposed Remedy Made Based Upon Public Comments - This section summarizes any changes that were made to the preferred

alternative presented in the Proposed Plan based upon EPA's consideration of the comments received during the public comment period.

In addition, two attachments are included with this Responsiveness Summary. Attachment A lists community participation activities concerning this Site conducted by EPA and ME DEP. Attachment B contains a copy of the transcript from the public hearing held on Wednesday, September 8, 1999 in Meddybemps, Maine. All of the original comments submitted by citizens and the State of Maine are included in the Administrative Record.

B. OVERVIEW OF THE REMEDIAL ALTERNATIVES CONSIDERED IN THE FS AND PROPOSED PLAN, INCLUDING THE PREFERRED ALTERNATIVE

Using the information gathered during the RI, including the human health and ecological risk assessments, EPA identified several cleanup objectives for the Eastern Surplus Company Site. The development and evaluation of cleanup options was greatly influenced by the selection and implementation of a non-time critical removal action (NTCRA) at the Site. The NTCRA involved the excavation and off-site disposal of contaminated soils. The NTCRA also included a source control groundwater extraction system. All of the soils above cleanup levels for PCBs, metals, and VOCs were removed from the Site by November 1999. The remaining soils are not considered to be a source of contamination. The northern plume groundwater extraction system was installed in 1999 and operation began in February 2000. The southern plume extraction system began operation in September 2000.

The Remedial Action Objectives were developed based upon the results of the human health and ecological risk assessments. Future ingestion of groundwater was identified as the only medium of significant concern. Long-term evaluation of the sediments was also identified as a concern to assure that conditions in the Dennys River do not deteriorate. The Remedial Action Objectives for the Site are:

- Prevent the ingestion of groundwater containing contaminants that exceed federal or state maximum contaminant levels (MCLs), non-zero maximum contaminant level goals (MCLGs), State of Maine maximum enforcement guidelines (MEGs), or in their absence, an excess cancer risk of 1×10^{-6} or a hazard quotient of 1;

- Prevent, to the extent practicable, the off-site migration of groundwater with contamination above cleanup levels;

- Restore groundwater to meet federal or state maximum contaminant levels (MCLs), non-zero maximum contaminant level goals (MCLGs), State of Maine maximum enforcement guidelines (MEGs), or in their absence, an excess cancer risk of 1×10^{-6} or a hazard quotient of 1; and

- Provide long-term monitoring of surface water, sediments, groundwater, and fish to verify that the cleanup actions at the Site are protective of human health and the environment.

After identifying the cleanup objectives, EPA developed and evaluated potential cleanup alternatives to address site contamination. The FS describes the cleanup alternatives and criteria EPA used to determine the alternatives retained for detailed analysis.

EPA's Proposed Plan's preferred alternative, Alternative 4, includes the following features:

- Extraction and treatment of the contaminated groundwater in two distinct plumes (northern plume and southern plume) will be performed. Groundwater from each of the two contaminated plumes will be extracted and treated by a common treatment system. Each extraction system will be designed to prevent off-site migration of contaminated groundwater and restore the aquifer to drinking water standards;

- The groundwater extraction system may be enhanced by flushing of treated water and/or injection of a chemical reagent to facilitate the removal of contamination;

- Land-use restrictions in the form of deed restrictions, such as easements and covenants to prevent ingestion of groundwater and disturbance of archaeological resources, will be used to control the two Site parcels agreed to be owned by the State of Maine. The State has agreed to impose institutional controls that run with the land for these parcels. Institutional controls shall also be implemented on those other Site properties upon which groundwater contamination is located until groundwater meets cleanup levels;

- Long-term monitoring of groundwater, surface water, and sediments will be performed to evaluate the success of the remedial action. Additional biota sampling (fish, mammals, and plants) may also be performed, as necessary;

- Portions of the mitigation of adverse effects upon the archaeological resources at the Site, caused by the non-time-critical removal action's soil excavation in 1999, will be performed as part of the remedial action; and

- Five-year reviews will be performed to assess protectiveness until cleanup goals have been met.

In the Feasibility Study Report, the estimated net present worth of the proposed remedy is $4.1 million dollars. The Proposed Plan's preferred alternative was chosen as the selected remedy because, of all the alternatives, it achieved the best balance of the criteria which EPA is required by law to evaluate. The selected remedy provides an effective reduction in human health risk, will attain federal and state cleanup standards, reduces the toxicity and volume of contaminated groundwater, and utilizes permanent solutions to the maximum extent practicable. The

following alternatives, including the selected remedy (Alternative 4), were evaluated in the FS.

Alternative 1--No Further Action: Under this alternative, no action beyond the NTCRA would be implemented at the Site. The groundwater extraction systems would be shut down and no further monitoring would be performed.

Alternative 2--Limited Action/Institutional Controls: Under this alternative, institutional controls and monitoring would be the mechanism to prevent exposure to contaminated groundwater.

Alternative 3--Groundwater Extraction With On-Site Treatment: Under this alternative, the institutional controls and monitoring of Alternative 2 would be implemented. In addition, a groundwater extraction system would be implemented to restore the groundwater to cleanup levels and prevent the off-site migration of groundwater. The groundwater extraction system would be an expansion of the system installed as part of the NTCRA.

Alternative 4--Groundwater Extraction With On-Site Treatment Along With Enhanced Flushing and/or Chemical Oxidation: This is the preferred alternative. This alternative is the same as Alternative 3 with the addition of flushing and/or chemical oxidation to reduce the time necessary to achieve cleanup levels.

C. SITE HISTORY AND BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

The Site was historically used as farm land and was the location of a mill. In 1946, a portion of the Site was acquired by Mr. Harry Smith, Sr. (now deceased). The present owner of this portion of the Site is Harry J. Smith, Jr. The two Smiths owned and operated a business known as the Eastern Surplus Company, which stored and resold, among other things, supplies, materials and equipment acquired from the U.S. Department of Defense (DOD). The Eastern Surplus Company used the Site as a salvage/storage yard to store these items. Mr. Smith, Sr. also installed and used a hydroelectric station to generate power until 1966. Most business and storage activities ceased at the Site between 1973 and 1976. By the 1970's, thousands of compressed gas cylinders, drums, small containers, and other materials were present at the Site.

In 1985, the Maine Department of Environmental Protection (ME DEP) performed an inspection of the Site and identified the Site as an uncontrolled hazardous substance site in need of response. The ME DEP initiated a removal action to stabilize the Site. The ME DEP removed approximately 120 transformers and fenced the Site. The Maine State Police also swept the Site for munitions.

In 1986, EPA took over the removal action initiated by the ME DEP. The removal involved the inspection, evaluation, sampling (if necessary), and disposal (if necessary) of: 312 fifty-five

gallon drums; 24 thirty gallon cans; 1,226 five gallons cans; 168 one hundred pound containers of calcium carbide; 1,182 miscellaneous small containers; 10 cubic yards of asbestos; and 2,674 compressed gas cylinders. EPA removed thousands of leaking drums and cans from the Site. EPA also provided oversight of DOD's removal of several thousand compressed gas cylinders. The EPA time-critical removal action was completed in 1990. The removal was successful at removing the hazardous substances above the ground surface.

The Site was proposed for inclusion on the National Priorities List (NPL) on October 2, 1995 (60 Fed. Reg. 51390). The Site was listed for final inclusion on the NPL on June 17, 1996 (61 Fed. Reg. 30510). In accordance with statutory requirements for NPL sites, the Agency for Toxic Substances and Disease Registry (ATSDR) completed a Preliminary Health Assessment for the Site. The ATSDR report recommended that further studies be performed to identify potential public health threats.

In 1996, EPA began the remedial investigation and feasibility study (RI/FS) for the Site. Initial studies revealed two areas of highly contaminated soil and groundwater. These areas were the subject of a non-time-critical removal action (NTCRA) which began in 1998. EPA completed the comprehensive study of the Site in 1999. The RI/FS confirmed the contamination in the soil and groundwater that was the basis for the NTCRA. The RI/FS also documented that there are low levels of PCBs in the Dennys River and the fish found in the Dennys River..

1. History of Community Involvement

The Site is situated in a small Town in rural Washington County, Maine. The local residents are quite interested in events in their community and have actively followed the Site. The summer residents of Meddybemps Lake also have substantial interest in any activity that may impact the quality of the Lake. EPA has attended the annual Meddybemps Lake Association meeting to provide an update of Site activities. EPA also was able to develop a strong sense of community concerns during visits to residences during the sampling of all residential wells within 1 mile of the Site (30 wells in all).

2. Public Reaction to the EPA's Preferred Alternative

The community has been strongly supportive of the EPA cleanup activities at the Site from the start. The community views the preferred alternative as the next logical step in the cleanup process. Some members of the community have expressed the desire to have the Site land made accessible to the local community. This will be an issue for the State of Maine as the State will own the two parcels of property that represent the surficial extent of the Site.

The Passamaquoddy Tribe submitted a set of comments that identified concerns regarding the adequacy of the RI/FS to address exposure to contamination based upon historic uses of the area by the Passamaquoddy.

D. SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND EPA RESPONSE

This Responsiveness Summary addresses comments pertaining to the Proposed Plan and FS which were received by EPA during the extended comment period from August 19, 1999 to December 20, 1999. Several individuals, the Passamaquoddy Tribe, and the State of Maine submitted comments to EPA either in writing or at the public hearing. None of the comments received were in opposition to the proposed cleanup action.

PART 1. SUMMARY OF COMMENTS FROM CITIZENS AND LOCAL OFFICIALS

All of the local citizens and local officials comments were in support of the selected remedy.

Response: EPA wishes to thank the community and local officials for their continued support for the cleanup of the Site.

PART 2. SUMMARY OF PASSAMAQUODDY TRIBE COMMENTS

Comment 1: The ERA does not mention the inclusion of the Passamaquoddy as participating in the ERA. The Passamaquoddy have a vested interest in the ecological resources of the site and because they were not included, culturally important species were not included in the ERA, including bear, moose, game birds, and muskrat, which are hunted for food.

Response: The purpose of the Ecological Risk Assessment (ERA) is to identify site-related impacts to non-human receptors. The ERA for the Site did address food chain impacts to predators and evaluated the potential Site impacts to birds, fish, and mammals. The Human Health Risk Assessment (HHRA) is the relevant document for the assessment of food chain impacts on human receptors. EPA believes that the HHRA is an accurate assessment of the potential threats to human health with respect to current and reasonable expected future uses of the area near the Site. Please note that the majority of the contamination in the Dennys River is located within a few hundred yards of the Route 191 bridge in Meddybemps. The concentrations of PCBs drops to very low levels (a few parts per billion) within the first 0.5 mile below the Route 191 bridge.

EPA has offered to meet with the Passamaquoddy Tribe to review the exposure assumptions in the HHRA. If there are pathways associated with Site conditions that have not been adequately addressed and which pose potential public health concerns, then EPA will collect additional data as part of the long-term monitoring program and will perform a revised risk evaluation of the data.

Comment 2: Ecologically important and culturally significant terrestrial and aquatic vascular plants were not included in the ERA. This area has been used traditionally to gather food and

"medicine" plants which are used by Tribal members. The Passamaquoddy formally requests additional study and adjustments to the scope of the ERA be made, with Passamaquoddy participation, including considerations for additional study such as sampling, monitoring, and modeling, so that the ERA becomes appropriate and relevant to our concerns and needs as Native people. The Tribe also requests that clear risk statements be published for the consumption of game birds, animals and medicine plants.

Response: As mentioned above, the ERA is a document that is focused on non-human receptors. In the HHRA, EPA evaluated the consumption of fish by a recreational fisherman. This was consistent with EPA discussions with the local residents of the area and from discussions with the Passamaquoddy. It is unlikely that the Site contamination has a substantial impact on game birds, animals, and medicine plants given the relatively low levels of contamination in the sediments. The on-site soils that were highly contaminated were not vegetated and the debris cover would have significantly limited animal and game bird exposure.

As stated in response to Comment 1, EPA has offered to meet with the Passamaquoddy Tribe to review the Site and identify areas that may require additional sampling. EPA has been providing all of the Site data to the Maine Bureau of Health as well as the Agency for Toxic Substance and Disease Registry. EPA will work with these entities along with the Passamaquoddy Tribe to develop a fact sheet to describe any potential public health concerns that may be identified as a result of any additional sampling and risk evaluation.

Comment 3: The Tribe is concerned with the overall impact that may exist to the ecosystem as a whole from the bioaccumulative substances such as PCBs in the sediments and the long-term health risks associated with the sediments. There was no formal analysis of important stressors such as habitat alteration or loss that affect organisms at various levels. There was no analysis of population level effects or interactions between species. This oversight seems especially significant when the restoration of the culturally important Atlantic salmon is considered. The Passamaquoddy Tribe hereby requests training and involvement in the long-term monitoring program for surface water, groundwater, and sediments.

Response: The ERA prepared for the Site did assess the potential impact to the ecosystem from the contamination at the Site. The HHRA evaluated the potential long-term human health risks. The majority of the ERA and HHRA assessments were focused on PCBs. All relevant stressors were evaluated as part of the ERA process. Habitat alteration with respect to the contamination and the remediation of the Site was not specifically addressed; however, it should be noted that the Site is relatively small and that the past activities at the Site have not significantly impacted the downstream habitat.

It is unclear what level of evaluation the Passamaquoddy Tribe is requesting with respect to this issue. As stated in the response to the previous comments, EPA is committed to working with the Passamaquoddy as part of the long-term monitoring program. Future data gathering efforts

can be used to address any relevant concerns that have not been addressed by the ERA or HHRA. With respect to training, EPA has provided a Superfund Core Cooperative Agreement Grant to the Passamaquoddy as a mechanism to fund training in environmental work. In addition, EPA has provided on-Site training to members of the Passamaquoddy Tribe with respect to achieving OSHA certification. EPA continues to be willing to coordinate with the Passamaquoddy to provide opportunities to observe the activities at the Site.

EPA does not provide Site-specific funding for training as part of the Superfund activities. Funding for training is best obtained under the type of arrangement currently in place (Cooperative Agreement).

Comment 4: The Passamaquoddy was not appropriately notified regarding the court decree deciding the future ownership of the site and naming the PRPs. Since a major archaeological site was discovered on this land, the timing of the Tribe's involvement and ability to comment on the court decree has negatively affected Passamaquoddy involvement in the future of the artifacts and the future use of this culturally important site. The Passamaquoddy Tribe demands that EPA act on its trust responsibility to have the Decree modified to deal with the artifacts directly.

Response: EPA made every effort to ensure that all local affected parties were made aware of the consent decree. Notice of the 30-day comment period for the proposed consent decree was announced in a February public relations fact sheet that was sent to the Site mailing list, including the Passamaquoddy tribal offices in Indian Township and Pleasant Point. The proposed consent decree was the subject of several articles in local newspapers (Bangor Daily News, Quoddy Times). EPA also formally announced the availability of the consent decree for review in the Federal Register. In addition, EPA met with the Governors of Indian Township and Pleasant Point on May 21, 1998 to provide an update of Site activities, including the negotiations with the PRPs.

On May 13, 1998, EPA sent a letter to Trevor White, the Environmental Planner for Indian Township, requesting the identification of any trustee issues with respect to the Site. A copy of this letter was also sent to Jeff Loman of the U.S. Bureau of Indian Affairs. EPA also notified the Department of Interior, as Natural Resource Trustee, of the negotiations with the PRPs.

The discovery of artifacts at the Site was made in April 1999, whereas the consent decree was finalized in March 1999. Therefore, the presence of the artifacts was not known to the parties prior to the finalization of the consent decree. Upon discovery of the artifacts, EPA quickly notified the Passamaquoddy Tribe and subsequently provided substantial involvement for the Passamaquoddy during the implementation of the soil cleanup.

The consent decree is a legal document which pertains to the liability of three groups of PRPs (Harry J. Smith, Jr.; Terrell & Lisa Lord; and federal agencies, the Department of Defense and the General Services Administration). EPA and the State of Maine entered into the consent

decree to recovery necessary and reasonable response costs that had been or were to be incurred at the Site. As the property owner PRPs were unable to make a cash contribution to the settlement, their properties were the only assets of value that were available as consideration for the settlement. The transfer of the land into the hands of the State of Maine will prevent future re-contamination of the Site. It is not the intent of the consent decree to address the artifacts or any of the issues pertaining to the National Historic Preservation Act.

With respect to the archaeological artifacts, in July 2000, EPA, the Maine Historic Preservation Commission, the national Advisory Council on Historic Preservation, and the Passamaquoddy Tribe signed a memorandum of agreement that included provisions for archaeological excavations, scientific interpretation, public viewing, and cultural interpretation of the artifacts. A separate agreement was reached to provide for custody of the artifacts by the Abbe Museum on behalf of the Passamaquoddy Tribe.

Comment 5: At this writing, the Tribe has not seen the collection of artifacts dug from the Eastern Surplus Co. site. Under the Native American Graves Protection and Repatriation Act, the Passamaquoddy Tribe has the right to obtain repatriation of cultural items which includes "associated funerary objects, unassociated funerary objects, sacred objects and objects of cultural patrimony." The Tribe demands that the EPA not go forward with deeding the property to the State of Maine until the artifacts issues are resolved.

Response: With respect to the Tribe seeing the artifacts, since the submission of this comment, on May 19, 2000, EPA presented the artifacts found up to that date to the Passamaquoddy Tribe for viewing and initial discussion. As part of the mitigation activities described in the MOA, EPA will continue to periodically make presentations concerning the artifacts to the public, including the Passamaquoddy Tribe.

While it is true that NAGPRA provides for the repatriation, disposition, and protection of Native American human remains and other defined cultural items, NAGPRA only applies to federal lands, those lands owned or controlled by the United States, and to tribal lands. 25 U.S.C. § 3001 et seq. At the Site, the artifacts have been found on properties owned by Harry J. Smith, Jr. and Terrell & Lisa Lord, who have agreed to transfer the Site properties to the State of Maine pursuant to a Consent Decree resolving claims under CERCLA and the Maine Uncontrolled Hazardous Substance Site Law. Further, the ongoing examination of the artifacts suggests that they do not meet the criteria provided by NAGPRA. Therefore, given the nature of the artifacts recovered to date, and because EPA does not own or control the Site properties, NAGPRA does not apply to this Site.

EPA cannot hold up the transfer of the properties at the Site for an indefinite period of time. The consent decree requires that the Lords' property be transferred to the State of Maine within two years after the entry of the consent decree as final judgment. Almost one year has past since the consent decree's entry. With respect to the Smith property, while there is no final date

established for the land transfer, given the extent of the liens on the property, the parties contemplated the transfer of this property as soon as the liens are cleared. For both Site properties, EPA is interested in having them transferred as soon as possible in order that the consent decree obligations will be met expeditiously. Further, as discussed above in the response to comment #4, the artifacts issues have been resolved.

Comment 6: Under the National Historic Preservation Act (NHPA) and the Archaeological Resources Protection Act (ARPA) Indian tribal governments possess inherent sovereign authority over the subject matter of cultural resources management. 36 CFR Part 800: Protection of Historic Properties, provides guidance for adverse effects to historic properties. Many artifacts were lost with soil excavation due to the high levels of contamination. The Passamaquoddy Tribe formally requests that a MOA be signed between the EPA and the Passamaquoddy Tribe outlining future archaeological plans, future land use restrictions on the site and an agreement for repatriation if such objects are found. The Tribe also respectfully requests that funds be made available to the Tribe for education, interpretation and display of artifacts.

Response: As discussed in the response to comment #4, a Memorandum of Agreement (MOA) has been signed by EPA, the Passamaquoddy Tribe, the Maine Historic Preservation Commission, and the national Advisory Council on Historic Preservation that addresses all of the requirements of the National Historic Preservation Act (NHPA). The MOA outlines the activities that EPA will perform to further excavate, interpret, and curate portions of the archaeological site. These activities include additional archaeological field investigations extending over 200 square meters, reports addressing the scientific and cultural value of the recovered materials, and generation of popular reporting materials to transmit the findings to the public.

EPA does not have the authority to provide the Passamaquoddy with site-specific Superfund money for educational and interpretive activities. EPA staff will work with the Passamaquoddy to develop such materials and perform educational activities. The TOSC (technical outreach services to communities) program that has been used by the Passamaquoddy for review of the Site documents may be able to assist with the review of the work of the EPA contract archaeologist. It is unlikely that EPA will finance display activities other than the initial curation of the artifacts and a possible educational display at the Site. The public outreach activities are described in the Cultural Resource Management Plan that was issued in early March 2000.

Comment 7: The Tribe requests the National Advisory Council on Historic Preservation review the matter pertaining to the artifacts and jurisdiction.

Response: EPA sent a letter to the Advisory Council on Historic Preservation (ACHP) on April 12, 2000 notifying the ACHP of the issues relating to this Site and inviting it to participate in the NHPA process. EPA received notification of the ACHP decision to become involved at the Site

on April 27, 2000. The Advisory Council determined that, while it would beneficial for the ACHP to enter into the consultation process to finalize the MOA, the ACHP will not offer a opinion regarding ownership of the artifacts. As discussed in the response to comment #4, however, both the MOA and the ownership of the artifacts have been resolved.

Comment 8: The human health risk assessment did not consider risks from tribal uses of aquatic or upland plants. Monitoring is recommended.

Response: One of the Passamaquoddy consultants stated that "members of the Passamaquoddy tribe [sic] are concerned about use of aquatic plants from Meddybemps lake [sic], which they harvest and use for making baskets..." Also, sweetgrass, or *Hierochloe odorata*, could be harvested and burned and the smoke inhaled during prayer or ceremony. However, the consultant also stated that "although it is unlikely that aquatic plants take up mercury, PCBs, and other COPCs in the Lake at concentrations high enough to cause harm in people who harvest or us those plants, there is no objective evidence in the risk assessment that contact with these plants is not an exposure pathway." The plant exposure pathway was not evaluated for several reasons. First, site-related contaminants in soils and sediments where these plants grow are unlikely to bioaccumulate to levels high enough to result in harm to humans that may touch or inhale smoke from burning these plants. A major bioaccumulative compound found in sediment areas is PCBs. However, all PCB levels in sediment areas near where aquatic plants might grow are very low (i.e., below 1 ppm). Chemicals can be taken up into plants in three ways; uptake from the soil through the roots and translocation to the aerial parts of plants, deposition of atmospheric particulates onto plant surfaces, or uptake of airborne vapors by plant parts. The uptake of PCBs from soils is estimated to be fairly low (O'Connor et al., 1990) and thus the translocation pathway is not thought to be an important transport route for PCBs in plants. The main uptake pathways of PCBs for plants appears to be the uptake of airborne vapors by plant parts (ATSDR, 1999). Overall the uptake of PCBs by plants from contaminated soils has been found to be negligible by several investigators (Gan and Berthouex, 1994; Webber et al., 1994; Yee et al., 1992). In addition, studies of uptake from soils highly contaminated with PCBs (i.e., PCBs 38-157 ppm) in the Housatonic River valley area of Western Massachusetts indicate that uptake of PCBs in fiddlehead ferns (another plant harvested for consumption) is 1000 times or more lower in plants than in the soil. This further supports findings from other studies that uptake of PCBs into plants from soils is fairly low (Potter et al.). By contrast the highest concentration of PCBs in on-site surface soils at the Eastern Surplus site is 1.9 ppm (mean = 0.27 ppm), for Meddybemps Lake sediments is 0.05 ppm, for the Mill Pond sediments is 2 ppm (mean = 1.2 ppm) and for the upper Dennys River sediments is 0.5 ppm (mean = 0.1 ppm). The uptake into plants from such low levels is likely to be extremely low presenting negligible risks to individuals handling these plants.

Second, the type of exposure mentioned (i.e., handling for basket weaving, occasionally placing plant in mouth) is unlikely to result in significant exposures for such low levels of contaminants. Burning of grass could be problematic if significant levels of contaminants were present in

sweetgrass, but as mentioned above this is highly unlikely given the low levels of on-site contaminants.

And third, based on discussions with environmental officers for both Passamaquoddy communities, tribal game wardens, and state game wardens, it appears that the Site is not regularly used for fishing since more prime fresh- and salt-water fishing areas are located closer to the Passamaquoddy communities.

Comment 9: The human health risk assessment does not consider risks to Passamaquoddy members from hunting and eating locally caught game which could bioaccumulate contaminants by eating contaminated fish. Some of these species include game birds such as duck and geese and other fish eating animals such as bear and racoon.

Response: The risk assessment did not evaluate exposure and risk from ingestion of game animals at the Site for several reasons. First, the concentration of bioaccumulative contaminants in on-site surface soils is too low to result in significant concentration of contaminants in the vegetation such that the game animals would accumulate high enough levels of these contaminants to be harmful to human consumers. The game animals mentioned in the comment letter included bear, racoon, deer, moose and ducks/geese. A second route of exposure for some of these animals is the ingestion of fish which have accumulated site-related contaminants present in surface water and sediments in their tissues. Of the game animals mentioned above, only bear and racoon would ingest fish. For both of these species, fish is a very small part of their diet (<or equal to 2%). In fish, the major bioaccumulative contaminants are mercury and PCBs. Mercury in fish is due to atmospheric deposition and is not site-related. PCBs are at very low levels in fish and unlikely to result in harmful levels to human consumers of bear and racoon. However, to fully evaluate this pathway, specific exposure information is needed. For example, what animals would tribal members eat, how much of each animal, what part would be consumed, etc.

Second, the Eastern Surplus Site is only 5 acres and surrounding areas that could be impacted by environmental contamination (and where plants grow) is minimal. Even if the site-impacted soils and sediments were contaminated with higher levels of bioaccumulative compounds, the area is too small to be a significant part of the game eating range. Thus, only a small portion of their total food intake would consist of site-contaminated plants.

And third, prior to conducting the baseline risk assessment, discussions with the environmental officers for both Passamaquoddy communities, tribal game wardens and state game wardens indicated that the Passamaquoddy members are infrequent fishers of Meddybemps Lake, Dennys River and Mill Pond. There are several prime fresh- and salt-water fishing bodies much closer to the reservation which are more frequently used by the tribe. Thus ingestion of game was not evaluated because likelihood of significant exposure via this pathway was considered small.

Comment 10: The VOCs present in the sediment should be addressed in the risk assessment.

Response: VOCs were detected at very low concentrations and frequencies in sediments sampled in Meddybemps Lake, Mill Pond and the upper Dennys River. All VOCs were evaluated and screened out from a quantitative evaluation in the risk assessment since measured concentrations were well below human health levels of concern.

Comment 11: The risk assessment did not evaluate risks from eating fish for children or adolescents or for fetuses or pregnant woman.

Response: The risks to adolescents from eating fish is not expected to be significantly different than the risk to adults due to small difference between adolescents and adults in terms of body weight, ingestion rates and other physiological parameters. Thus a separate exposure scenario for adolescent ingestion of fish was not evaluated.

Children may be more or less sensitive than adults to certain environmental pollutants for several reasons: 1) children eat more food and drink more water per unit body weight than do adults, 2) the variety of food children consume is often more limited than adults, 3) children's bodies are not yet fully developed, so exposure to toxic substances may affect their growth and development.

Separate risks to children for exposure to fish were not quantitatively evaluated because of the uncertainty in such an evaluation. Generally, there is little information which can quantitatively be applied to account for differences in toxicity to children as opposed to adults (however, for methyl mercury, the chronic toxicity endpoint assessed was for developmental effects in infants). Also, the existing information for ingestion rates of freshwater fish by children is highly variable and uncertain. Lastly, the State of Maine currently has a health advisory for methyl mercury for all freshwater lakes and streams, including Meddybemps Lake and the Dennys River, making frequent ingestion of fish by children unlikely. The health advisory states: "Pregnant women, nursing mothers, women who plan to become pregnant, and children less than 8 years of age, should not eat WARM water fish species caught in any of the Maine inland surface waters; consumption of COLD water fish species should be limited to 1 meal per month." Although this advisory is based on methyl mercury, EPA believes it is protective for sensitive populations exposed to *all* contaminants in fish in Meddybemps Lake and the Dennys River. The State has been reviewing all fish advisories and will issue new advisories in the spring. The new advisories for sensitive populations are expected to change little from the current advisory for methyl mercury and should remain protective of sensitive subpopulations for all contaminants.

If a rough, uncertain and conservative estimation of risks to children of freshwater recreational fisherman were conducted, the conclusions of EPA's baseline risk assessment would not change and the State's existing health advisory would remain appropriate. Very few studies in the literature report high end values for freshwater fish ingestion rates for young children (i.e., < 6

years of age). However, some studies (EPA, 1996; West, et al., 1989) indicate that the ingestion rate of children of 1-5 yrs would be roughly half that of EPA's recommended adult freshwater fish ingestion rate of 25 g/dy. If this were the case, cancer risks to children from all contaminants in Meddybemps Lake and Dennys River fish would be 2 times lower than that of an adult. For noncancer effects, children's risks would be 2.6 times greater than that of an adult. The risk assessment concluded that most fish in Meddybemps Lake and Dennys River would pose a risk to adult recreational fisherman due mainly to mercury. Mercury affects the central nervous system and would pose additional risks to young children whose central nervous system is more vulnerable to toxins. In addition, due to increased fish intakes in children relative to body weight, noncancer risks due to mercury would be 2.6 times higher than adults. Thus, ingestion of fish by children could result in harmful effects, and children, pregnant women, nursing mothers and women who plan to become pregnant should continue to follow the State's health advisory for fish on Meddybemps Lake and the Dennys River.

If subsistence fishing were to occur in the future on Meddybemps Lake or the Dennys River, there would still be an unacceptable risk from ingesting fish, except the risks would be greater than those predicted in the risk assessment and above. In this case, assuming the size of fish meals remains the same, following the State's health advisory should ensure adequate protection for all populations.

Comment 12: The Risk assessment should add risks from drinking groundwater to those from eating fish. Also, risks from eating fish should be added to those from exposure to surface water and sediment.

Response: In calculating the Reasonable Maximum Exposure (RME) risk to an individual, risks are only added for pathways in which it is likely that the same individual receiving the highest exposure to one media would also be receiving the highest exposure to another. It is unlikely that the individual eating the fish with the highest concentration is also the individual consuming the highest concentrations of all contaminants present in groundwater. Indeed no individual currently residing near the Eastern Surplus site has a drinking water well in the most contaminated part of the groundwater plume, nor is this likely to happen in the future. In addition, fish concentrations and thus risks vary depending on which fish, which species, which size and where fish are caught. In addition, the risks from groundwater ingestion are well outside of EPA's target risk range and would remain outside of EPA's risk range even with the addition of other exposure pathways to the groundwater risk. The baseline risk assessment also concludes that risks from ingesting fish exceed EPA's target risk range due to the presence mainly of mercury. Thus, even if risks were added, these would not change conclusions about risks for either the groundwater or fish pathway.

Surface water and sediment concentrations of site-related contaminants is very low. The Meddybemps Lake and Dennys River area is fairly large. The likelihood that individuals ingesting the most highly contaminated fish also receive exposure to the most highly

contaminated soils and sediments is low. Thus pathways were not added.

Comment 13: The risk assessment does not provide a quantitative assessment of risks from showering and inhaling volatiles from groundwater. This risk is likely to double the risks from drinking the water.

Response: Inhalation risks from showering uses of groundwater and surface water were discussed in the text on pages 5-6 and 5-8 of the Human Health Risk Assessment, respectively. In these sections, the risks from ingestion of water was doubled to account for the additional risks from inhalation of volatile compounds from water. Also, the impact of inhalation risks on total risks from groundwater and surface water were discussed.

PART 3. SUMMARY OF STATE OF MAINE COMMENTS

Comments 1 to 12 concern the Remedial Investigation Report.

Comment 1: The final RI document contains usage, tense and other grammatical errors. Only a limited number of these types of corrections are noted in the comments that follow.

Response: Comment is noted that there are typographic and grammatical errors in the text.

Comment 2: Regarding page E-14, section E.7.1, second paragraph, third sentence--the State of Maine's drink water criteria are called "maximum exposure guidelines" (MEGs) not "maximum exposure criteria" as used in the text here.

Response: EPA acknowledges that the correct phrase is "maximum exposure guidelines."

Comment 3: Regarding page 1-9, section 1.2.4--as requested in the May 24, 1999 letter, please provide the ME DEP with the Weston document [Non-Time Critical Removal Action, Eastern Surplus Company Superfund Site, Meddybemps, Maine (Weston 1999)] referenced in the text.

Response: The State of Maine has been provided with the final NTCRA Report.

Comment 4: Regarding page 2-4, section 2.2.1: Weston/START 1997, first paragraph, third sentence--the sentence should read "a groundwater seep in the small..." instead of "a groundwater seed area in the small..."

Response: "seed" will be corrected to "seep." Noted in the Errata sheet.

Comment 5: Regarding Section 4, as previously stated in the ME DEP's May 24, 1999 letter to EPA (specifically comment #7)--throughout this section the text refers to MCLs. Infrequently, the text refers to exceedences of the State of Maine's MEGs. In accordance with past EPA decisions, the MEGs are an "Appropriate & Relevant" requirement. As such, language throughout this section and elsewhere in the document should include language that discusses any exceedance of the Maine's MEGs. Please note that the ME DEP is expecting the Maine Department of Human Services to finalize and release an updated version of the State of Maine's MEG listing. The ME DEP will provide this list to EPA as soon as possible.

Response: The Section 4 narratives do discuss exceedances of the MEGs for overburden and groundwater. The narratives for each aquifer zone of interest, for each contaminant grouping (VOCs, SVOCs, pesticides/PCBs, and metals), identify which chemicals were detected and whether the MCLs or MEGs were exceeded. Comparison of groundwater analytical results to both MCLs and MEGs are also presented in Tables 4-8, and in Tables 4-10A through 4-10D.

It is acknowledges that the 1992 MEGs are considered to be applicable or relevant and appropriate requirements (ARARs) because the Maine Standards for Hazardous Waste Facilities (which incorporated by reference the 1992 MEGs) are relevant and appropriate for the Site. The recent revised MEGs are not considered ARARs per discussions with the State of Maine Department of the Attorney General. Groundwater quality and ARARs were evaluated together in the Feasibility Study Report to develop remedial action objectives and chemical-specific remediation goals.

Comment 6: Regarding page 4-9, Section 4.3.1.3, middle paragraph, fifth sentence--trichloroethene is repeated. Was the second one supposed to be tetrachloroethene or was trichloroethene inadvertently listed twice? Clarify text.

Response: The term "trichloroethene" was repeated twice; the correct phrase is " tetrachloroethene and trichloroethene."

Comment 7: Regarding page 4-46, Section 4.4.6--the sentence should read: "The overall types and distribution of SVOCs for each bedrock aquifer zone is discussed." not "The overall types and distribution of SVOCs for each overburden aquifer zone is discussed".

Response: Comment noted. The correct reference is to the bedrock.

Comment 8: Regarding page 4-78, section 4.8, second paragraph--as previously stated in the May 24, 1999 letter to EPA, it was noted that sediment effect levels developed by the National Oceanic and Atmospheric Administration (NOAA) are moderately conservative ecological screening values for contaminants in sediments. While true, the NOAA values are for estuarine/marine environments. Similar ecological benchmarks have been developed for freshwater systems by the Ontario Canada Ministry of the Environment. The Ontario Ministry values should be used for screening contaminants

in freshwater sediments.

Response: The ME DEP is correct in noting that the NOAA ER-M values are more appropriate for evaluating estuarine and marine sediments. Section 4 of the RI only used the NOAA ER-M values for discussion purposes. The Ontario Ministry of the Environment's (OME) benchmark values (LELs, and SELs) would be more appropriate for comparison purposes. The OME values were used and are presented in the Ecological Risk Assessment (ERA) as a screening benchmark.

Comment 9: Regarding page 5-22, section 5.3.1, top paragraph--what about the transport of VOCs through the bedrock to the east side of the Dennys River? Within the last year, contaminants have been detected in two (2) of the monitoring wells on the eastern side of the Dennys River.

Response: The potential transport of VOCs through the bedrock aquifer to the east side of the river is being assessed by EPA and Tetra Tech NUS through a supplemental bedrock investigation program. This field program was initiated in late November 1999 and was concluded in mid-January 2000. Additional deep bedrock boreholes have been advanced on-site and on the east side of the river to provide monitoring wells. Borehole geophysics and discrete interval sampling were conducted. Groundwater samples were collected from monitoring wells and from discrete bedrock fractures.

Although tetrachloroethene (PCE) was detected in two monitoring wells situated east of Mill Pond, it is uncertain whether its presence could be attributed to offsite migration or to potential cross contamination during sampling or hydrologic measurements. The two wells were purged and re-sampled twice in December 1999. No VOCs were detected during either of those instances. These results strongly suggest cross contamination. Low level detection of VOCs have been noted in a subsequent sample indicating that some transport across the river may be possible. This further supports the need for the groundwater extraction and treatment system.

Comment 10: Regarding page 5-26, section 5.3.4, top of page--what do the units for aluminum concentration mean? Is this a typographical error and should the units really be ug/l? Clarify.

Response: Phi (f) should be replaced by mu (m), the correct symbol. Apparently, the incorrect Greek symbol was used because different software or printers were used to print the document.

Comment 11: Regarding page 6-1, section 6, top paragraph--the date of the Draft Eastern Surplus Superfund Site Ecological Risk Assessment should read "July 1999" instead of "January 1999."

Response: The date of the Draft Eastern Surplus Company Superfund Site Ecological Risk Assessment," as cited in the RI report, is correctly dated January 1999, not July 1999 as noted in the ME DEP comment.

Comment 12: Regarding Final RI, Volume II of IV – Table and Figures, Tables 4-10A, 4-10B, 4-10C, and 4-10D--under the column headed "MEG," the MEG for the compound, vinyl chloride, is not included. The MEG entry for vinyl chloride on these tables should read "0.15" ug/l.

Response: The MEG for vinyl chloride (0.15 ug/L) was inadvertently omitted from the groundwater data tables. A review of the data indicates that detection limit for vinyl chloride was typically 1 ug/L and therefore detection of this VOC to 0.15 ug/L was not possible. Vinyl chloride was detected in only one groundwater sample, which was collected from the MW-23M well in November 1998 at 0.9 mg/L. A brief discussion of the single detection of vinyl chloride is presented in Section 4.4.4.4 in the RI.

Comments 13 to 24 concern Volume III of IV of the Final RI (Human Health Risk Assessment (HHRA)).

Comment 13: Specify soil cleanup levels used for the Non-Time-Critical Removal Action (NTCRA).

Response: Soil cleanup levels for the Non-Time-Critical Removal Action (NTCRA) are presented on page 1-7 of Final RI, Volume I. The HHRA, Volume III of the RI, draws on information presented in the other volumes of the RI.

Comment 14: Include seep water in the assessment or explain why exposure to this medium is not expected.

Response: Seep water analytical results were not included in the HHRA because exposures to the groundwater seeps are unlikely. The seep samples were obtained from an area located near the bottom of a steep slope, where groundwater gradually discharges through several seeps. This area is characterized as being somewhat rocky and not readily accessible for recreational purposes. The samples were obtained from trickles of water emanating from the seeps and from very small puddles. These trickles of water quickly enter Mill Pond, where any contaminant is quickly diluted by fast-moving water. A groundwater extraction system has been installed just upgradient of this location and was activated on January 24, 2000. This extraction system is expected to greatly reduce, if not completely stop, the further migration of contaminated groundwater into the Dennys River. It is likely that the groundwater seeps will also be greatly reduced or eliminated.

It was therefore concluded that the groundwater seep samples are not representative of concentrations in surface water at a potential point of contact.

Comment 15: Include Maine's health risk-based Maximum Exposure Guidelines (ME DEP/DHS, 1994) in the analysis of groundwater contaminants. This would be in document sections where potential risks are evaluated, contaminants of potential concern (COPCs) are identified, and substances that exceed applicable or relevant and appropriate requirements (ARARs) are identified.

Response: COPC selection for surface water exposures was based on comparing exposure point concentrations to the EPA Region III Risk Based Concentrations (RBCs) for tap water ingestion and to the MCLs. Both sets of values are conservative, risk-based concentrations. Inclusion of MEG values to further screen COPCs and evaluate risks in the risk assessment would have increased the COPC list by four chemicals only (aluminum, iron, 1,1-dichloroethane and xylene). Inclusion of these chemicals would not have changed the risks significantly since EPA does not have strong toxicological data to support a toxicity evaluation for aluminum or iron. The other two chemicals are well below their MCLs or risk-based levels. MEGs have been used in setting remediation goals for this Site. It is EPA policy to rely upon EPA national and regional guidance in the development of risk assessments at Superfund sites.

Comment 16: To be consistent with State guidance, the number of hours per day in contact with surface water should be 1.0 hours for central tendency exposure (CTE) estimates and 2.6 hours for reasonable maximum exposure (RME) estimates (0.5 and 1.0, respectively, were used in the assessment).

Response: The exposure time for contact with surface water was derived by assuming a swimming scenario and adopting recommendations for swimming time provided in the Exposure Factors Handbook (1997). The values of 1 hour for the RME and 0.5 hour for the central tendency are considered reasonably conservative for Meddybemps Lake and upper Dennys River.

Comment 17: Both the RME and CTE soil-to-skin adherence factors for children should be 0.2 mg/cm^2-event.

Response: Soil-to-skin adherence factors were obtained from the latest EPA draft dermal guidance which has received extensive internal and external peer review. The values in this guidance are based on the latest information regarding dermal adherence provided in the Exposure Factors Handbook. This information supports different, rather than the same, values for RME and CT adherence values in children.

Comment 18: Correct apparent error in equation for calculating dermal uptake of inorganics.

Response: In the equation for calculating dermal uptake of inorganics from surface water and/or groundwater, presented on page 3-21 of Final RI Volume III, the conversion factor of 10-3 L/cm^3 was inadvertently omitted. The risk calculations did include this factor.

Comment 19: Correct soil to skin adherence factors for adults in Tables 4.1, 4.3, and 4.4 (change from 0.07 to 0.03).

Response: Soil-to-skin adherence factors were obtained from the latest EPA draft dermal guidance which has received extensive internal and external peer review. The values in this guidance are based on the latest information regarding dermal adherence provided in the Exposure Factors Handbook.

This information supports different, rather than the same, values for RME and CT adherence values in children.

Comment 20: Compare the estimated incremental lifetime cancer risks (ILCRs) with the target risk level used by the ME DEP ($1x10^{-5}$) and develop conclusions/recommendations based on those comparisons.

Response: EPA's basis for making decisions as to whether a remedial action should be undertaken is based in part on EPA's target risk range of 10^{-4} to 10^{-6}. While EPA is aware of the State of Maine risk level of 10^{-5}, EPA's policy is to follow the target risk range.

Comment 21: The ME DEP included a discussion in the comment regarding the different risk assessment conclusions that would result from the use of the 10^{-5} risk level.

Response: EPA finds this information interesting. However, as previously stated, the EPA risk range is the basis for an EPA Superfund action.

Comment 22: The RME risk estimate for fishermen exceed the EPA target risk levels (a correction is needed).

Response: RME risk estimates for fishermen are slightly above 1.0 E-04. These levels are in the E-04 risk range. EPA's published guidance states that risks in the E-04 to E-06 risk range are acceptable. This has variously been interpreted as 1.0E-04 to 1.0 E-06 or simply as E-04 to E-06. Under the latter interpretation, RME risks to fishermen are within the acceptable range. However, since other scenarios with cancer risk estimates of similar magnitude were listed as exceeding the acceptable range, a correction of the interpretation of risks to fishermen is in order.

Comment 23: The major contributor to cancer risks in soils is arsenic (not stated in the assessment).

Response: EPA does not typically identify major risk contributors when the incremental excess risk is within the target risk range. However, the comment is correct that arsenic is the major contributor to risk in soils. However, arsenic appears to be naturally occurring in Site soils.

Comment 24: It is stated that the major contributor to cancer risk in surface water is arsenic. To be more precise arsenic was the only contributor to cancer risk in surface water.

Response: We concur that arsenic is the ONLY contributor to cancer risk in surface water. In addition, arsenic was infrequently detected and was only detected at concentrations below the federal MCL and State MEG. Noted in the Errata.

Comments 25 to 26 concern the Ecological Risk Assessment.

Comment 25: It is still unclear why results of analyses on soils collected in 1998 were not discussed.

Response: The data used in the ERA was based upon the pre-NTCRA data base. It was not considered necessary to include this data in the ERA.

Comment 26: It was noted that the data on samples of soil that has already been removed were not included in the assessment (page 2-8). Although acceptable, it is not clear when the material in question (soil) was removed. It is understood that the planned soil removal has been completed.

Response: All contaminated soils were removed by December 1999.

Comments 27 to 42 concern the Final Feasibility Study Report (dated August 1999).

Comment 27: The Final FS contains usage, tense and other grammatical errors. Only a few of these types of corrections are noted in the comments that follow.

Response: Comment noted..

Comment 28: The risk scenarios include risks "to fishermen that fish in the water bodies adjacent to the site." Were the risks evaluated associated with the act of fishing - wading, contact with water, etc. If the risks are associated with fish consumption, it is possible that persons other than the fisherman consume the fish - family members, including children.

Response: Risks to recreational fishermen were evaluated for the ingestion of fish pathway. Fishermen may or may not receive substantial exposure to surface water and sediments. Risks from direct contact with surface water and sediment were evaluated separately in the risk assessment for the adult and child recreational receptor. It is possible that other receptors may ingest fish, such as children.

Separate risks to children for exposure to fish were not quantitatively evaluated because of the uncertainty in such an evaluation. Generally, there is little information which can quantitatively be applied to account for differences in toxicity to children as opposed to adults (however, for methyl mercury, the chronic toxicity endpoint assessed was for developmental effects in infants). Also, the existing information for ingestion rates of freshwater fish by children is highly variable and uncertain. Lastly the State of Maine currently has a health advisory for methyl mercury for all freshwater lakes and streams, including Meddybemps Lake and the Dennys River, making frequent ingestion of fish by children unlikely. The health advisory states: "Pregnant women, nursing mothers, women who plan to become pregnant, and children less than 8 years of age, should not eat WARM water fish species caught in any of the Maine inland surface waters; consumption of COLD water fish species should be limited to 1 meal per month." Although this advisory is based on methyl mercury, EPA believes it is protective for sensitive populations exposed to *all* contaminants in fish in Meddybemps lake and the Dennys River. The State has been reviewing all fish advisories and will issue new

advisories in the spring. The new advisories for sensitive populations are expected to change little from the current advisory for methyl mercury and should remain protective of sensitive subpopulations for all contaminants.

If a rough, uncertain and conservative estimation of risks to children of freshwater recreational fisherman were conducted, the conclusions of EPA's baseline risk assessment would not change and the State's existing health advisory would remain appropriate. Very few studies in the literature report high end values for freshwater fish ingestion rates for young children (i.e., less than six years of age). However, some studies (EPA, 1996; West et al., 1989) indicate that the ingestion rate of young children would be roughly half that of EPA's recommended adult freshwater fish ingestion rate of 25 g/dy. If this were the case, cancer risks to children from all contaminants in Meddybemps Lake and Dennys River fish would be 2 times lower than that of an adult. For noncancer effects, children's risks would be 2.6 times greater than that of an adult. The risk assessment concluded that most fish in Meddybemps Lake and Dennys River would pose a risk to adult recreational fisherman due mainly to mercury. Mercury affects the central nervous system and would pose additional risks to young children whose central nervous system is more vulnerable to toxins. In addition, due to increased fish intakes in children relative to body weight, noncancer risks due to mercury would be 2.6 times higher than adults. Thus, ingestion of fish by children could result in harmful effects, and children, pregnant women, nursing mothers and women who plan to become pregnant should continue to follow the State's health advisory for fish on Meddybemps Lake and the Dennys River.

Comment 29: Regarding page 2-4, section 2.1.1--reference should read "Appendix A" instead of "Appendix A-1."

Response: Comment noted.

Comment 30: Regarding page 2-11 and 2-12, section 2.2.5.1--are the concentration units as presented correct? The Greek symbol for the letter phi is used with g/l. Should the concentration units read ug/l instead? Explain or correct units.

Response: These were typographic errors. Phi (f) should be replaced by mu (m), the correct symbol. Apparently the incorrect Greek symbol was used because different software or printers were used to print the document.

Comment 31: Regarding page 2-15, section 2.2.7--the NTCRA removed soils contaminated with PCB concentrations greater than 2 mg/kg not 2 ug/kg. Correct.

Response: The PCB action level was incorrectly identified as 2 ug/kg. The correct value is 2 mg/kg. Comment noted.

Comment 32: Regarding page 2-15, section 2.2.7--fish advisories are generated by the Bureau of Health, not the Board of Health.

Response: The Maine Bureau of Health was incorrectly referenced as the Maine Board of Health. Comment noted.

Comment 33: Regarding page 2-44 through 2-50, section 2.5.3.7--as previously stated in ME DEP's June 3, 1999 letter, the State of Maine's acceptance of any treatment that involves the injection of chemicals into the ground is dependent upon initiating and maintaining hydraulic control of the area where treatment with chemicals is occurring.

Response: The ME DEP's concerns regarding the injection of chemicals at the site have been noted. The groundwater extraction system will be used to prevent the release of contaminants into the Dennys River or Meddybemps Lake.

Comment 34: Regarding pages 2-51 to 2-52, section 2.5.3.8, concerning on-site beneficial reuse--as stated previously in the ME DEP's June 3, 1999 letter, any on-site reuse of treated water must not create surface water runoff (preferential pathways) that would discharge to a surface water body (i.e., Meddybemps Lake and Dennys River). Also, in addition to the MCLs, any treated water that is discharged must meet the MEGs.

Response: The EPA has received the letter concerning the ME DEP's position that pollutants cannot be discharged directly to the Class AA River. The planned disposition of treated groundwater is on-site discharge into an infiltration gallery. The treatment system is designed to remove VOCs and manganese to below MCLs and MEGs; the treated water quality will be comparable to drinking water quality. Any water used for re-injection will either meet the performance standards for discharge or be injected within the area of hydraulic control.

Comment 35: Regarding page 3-3, section 3.1.3--what about VOCs in excess of the MEGs?

Response: VOCs detected in private residential wells do not exceed MCLs or MEGs.

Comment 36: Regarding page 3-5, section 3.1.5--please note that the ME DEP understands that the revised MEG for manganese is to be 500 ppb as opposed to the existing level of 200 ppb.

Response: EPA appreciates the information. However, the 1992 MEG list is the ARAR. Therefore the value of 200 ug/l will be used as the performance standard unless a higher background level can be established.

Comment 37: Figures 3-1, 3-2, and 3-4 are incorrectly referenced as Tables 3-1, 3-2, and 3-4.

Response: Comment noted .

Comment 38: Regarding page 3-14, section 3.2.3--please note that the ME DEP understands that the revised MEG for manganese is to be 500 ppb as opposed to the existing level of 200 ppb.

Response: EPA appreciates the information. However, the 1992 MEG list is the ARAR. Therefore the value of 200 ug/l will be used as the performance standard unless a higher background level can be established.

Comment 39: Regarding page 3-18, section 3.2.4--Figure 3-7 was incorrectly referenced as Table 3-7.

Response: Comment noted .

Comment 40: Regarding page 3-22, section 3.2.4--please note that the ME DEP understands that the revised MEG for manganese is to be 500 ppb as opposed to the existing level of 200 ppb.

Response: EPA appreciates the information. However, the 1992 MEG list is the ARAR. Therefore the value of 200 ug/l will be used as the performance standard unless a higher background level can be established.

Comment 41: Regarding page 4-12, section 4.1.2--GW-2 was incorrectly referenced as GW-1.

Response: Comment noted.

Comment 42: Regarding page 4-16, Section 4.1.3--GW-3 was incorrectly referenced as GW-1.

Response: Comment noted .

E. THE SELECTED REMEDY'S CHANGES TO THE PROPOSED REMEDY MADE BASED UPON PUBLIC COMMENTS

There have been no significant changes to the Proposed Remedy as a result of public comments. The local public was in support of EPA's Proposed Remedy. The State of Maine and the Passamaquoddy Tribe were both supportive of this Proposed Remedy. The Passamaquoddy Tribe's request for long-term monitoring to address certain concerns are consistent with the monitoring anticipated as part of the Proposed Remedy.

APPENDIX A

TABLES AND FIGURES