IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS
WESTERN DIVISION

UNITED STATES OF AMERICA, STATE OF CONNECTICUT, COMMONWEALTH OF MASSACHUSETTS, Plaintiffs, v. GENERAL ELECTRIC COMPANY, Defendant.	CIVIL ACTION NO. 99-30225, 99-30226, 99-30227-MAP (consolidated)

EXHIBIT 2

UNITED STATES' MEMORANDUM IN SUPPORT OF MOTION TO ENTER CONSENT DECREE

EXHIBIT 2 TO UNITED STATES' MEMORANDUM IN SUPPORT OF MOTION TO ENTER CONSENT DECREE

UNITED STATES' RESPONSE TO COMMENTS ON PROPOSED CONSENT DECREE

United States et al. v. General Electric Company
Civil Action No. 99-30225-MAP (and consolidated cases)

TABLE OF CONTENTS

I.	Introduction	3
II	Comments on Overall Consent Decree	4
	A. Endorsements of Consent Decree	4
	B. Adequacy of Public Process	4
	C. Covenants Not to Sue	19
	D. Contribution Protection/ Effect of Decree on Property Owners	34
	E. Other Overall Consent Decree Comments	41
III.	Comments on Remediation in Consent Decree	53
	A. Rest of River	53
	B. On-Plant Consolidation Areas	66
	C. Environmental Restrictions and Easements	80
	D. Groundwater	91
	E. Protectiveness	95
	F. Protection from Recontamination	99
	G. Silver Lake	113
	H. Upper ½ Mile Reach	115
	I. Other Remediation Comments	123
IV	Comments on Natural Resource Issues	129

I. INTRODUCTION

This memorandum provides the United States' responses to the public comments received on the proposed Consent Decree ("Consent Decree", or "Decree") in *United States et al v. General Electric Company,* Civil Action No. 99-30225-MAP (and consolidated cases). This "Response to Comments" is Exhibit 2 to the United States' Memorandum In Support Of Motion To Enter Consent Decree ("Memorandum of Law").

This Response is organized in the following manner. First, the United States provides responses to overall Consent Decree comments, including comments regarding the adequacy of public participation, the covenants not to sue, the contribution protection provided in the Decree, and other non-technical issues. Second, the United States, on behalf of EPA, provides responses to comments regarding the remediation of contamination to be implemented under the Decree, with responses organized by specific areas to be remediated. Third, the United States, on behalf of the federal Natural Resource Trustees – the United States Department of Interior ("DOI"), and the National Oceanic and Atmospheric Administration ("NOAA") – provides responses to comments on the Decree's provisions regarding natural resource damages. The factual information in this Response is supported by the Declarations attached to the Memorandum of Law. *See* Exhibit 3 to the Memorandum of Law.

The United States has included with the Memorandum of Law each of the comments received on the Decree. *See* Exhibit 1 to the Memorandum of Law. Moreover, as a courtesy to assist this Court in its review of this Response, the United States has also prepared two charts that simplify references between responses and particular comment submittals: first, Exhibit 4.1

provides the number of the response in this document, followed by the comment submittal; second, Exhibit 4.2 denotes the particular comment submittal, its signatory, the submittal date, and the Response(s) to Comments where such submittal's comment(s) is/are addressed. *See* Exhibits 4.1 and 4.2 to the Memorandum of Law.

II. COMMENTS ON OVERALL CONSENT DECREE

A. Endorsements of the Consent Decree

Comment 1: In response to the public comment period on the proposed Consent Decree, the United States received over 110 separate public comment letters or oral comments at a public hearing. Of those submittals, nearly 40 of the commenters endorsed going forward with entry of the Consent Decree,[1] with nearly 30 of those endorsements being without reservation.

Response 1: The United States, by concluding that the Decree is fair, reasonable and consistent with the objectives of CERCLA, RCRA and the Clean Water Act, and in the public interest, is moving for entry of the Decree. Accordingly, the United States agrees with the comments endorsing the Decree and will not respond further in this Memorandum to the endorsements of the Decree. With respect to the Decree implementation suggestions mentioned in certain endorsements, the United States will carefully consider such comments in Decree implementation.

B. Comments on Adequacy of Public Process

Comment 2: Several comments received during the public comment period requested that the

---

[1]Among those 39 endorsements of the Decree is a submittal from the Housatonic Valley Association which is counted for this purpose as a single endorsement of the Decree, but which is signed by twenty-five additional municipal, recreational, political or environmental leaders in Connecticut.

United States provide additional time for the public to comment on the proposed Consent Decree, including several requests in January 2000 for a 6-month extension to the public comment period.

Response 2: Notice of the proposed settlement was published in the Federal Register on October 26, 1999. 64 Fed. Reg. 576. The original comment period was 60 days. In response to public request, on December 7, 1999, the comment period was extended to January 26, 2000. 64 Fed. Reg. 68374. Finally, on January 27, 2000, after receiving additional requests for additional time to provide written comments on the proposed Consent Decree, the United States agreed to a further extension of time to February 23, 2000. 65 Fed. Reg. 4439. Thus, the overall public comment period was 120 days, from October 26, 1999, to February 23, 2000. The comment period, and the opportunities for input and discussion provided by the United States during the 120-day period, were sufficient. As noted below, the 120-day period far exceeds any applicable legal public participation requirements. This comment does not provide a basis for the United States to withdraw from the settlement.

The proposed settlement involves injunctive relief to enjoin discharges of pollutants, such that the requirements of 28 C.F.R. § 50.7 apply. Pursuant to that provision, the United States is to provide no less than 30 days of public comment on proposed settlements. Pursuant to Section 122(d)(2) of CERCLA, a proposed judgment incorporating the performance of remedial action must be filed at least 30 days before a final judgment is entered and the United States is to provide persons who are not named as parties to the action with an opportunity to comment on the proposed judgment before its entry by the court as a final judgment. 42 U.S.C. § 9622(d)(2).

Another basis for the Consent Decree is Section 7003 of RCRA. Pursuant to subsection

(d) of that Section, '[w]henever the United States or [EPA] proposes to covenant not to sue or to forebear from suit or to settle any claim arising under this Section, notice, and opportunity for a public meeting in the affected area, and a reasonable opportunity to comment on the proposed settlement prior to its final entry shall be afforded to the public.'[2]

Another component of the proposed settlement is the draft reissued RCRA permit. For the proposed revocation and reissuance of the RCRA permit, 40 C.F.R. § 124.10 provides requirements for public notice of permit actions and the public comment period as follows. Section 124.10(b)(1) provides that '[f]or RCRA permits..., public notice shall allow at least 45 days for public comment'. Section 124.10(b)(2) provides that "[p]ublic notice of a public hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)"

Overall, the public participation afforded on the lodged Decree by the United States in the area affected by the proposed Consent Decree was quite extensive and met all legal requirements. During the 120-day public comment period, EPA held three public meetings, on November 16, 1999 in Pittsfield, on December 9, 1999 in Stockbridge, Massachusetts, and January 4, 2000 in

---

[2]Relevant EPA guidance on this subject is the September 26, 1997, *Guidance on the Use of Section 7003 of RCRA*, prepared by EPA's Office of Enforcement and Compliance Assurance, available at either of the following internet locations: http://www.epa.gov/oeca/osre/971020.html, or http://es.epa.gov/oeca/osre/971020.pdf. This guidance is not a rule and does not create any legal obligations; however, in addressing the 'reasonable' opportunity language of Section 7003(d) of RCRA, this guidance states that EPA's Regional offices 'may exercise discretion in deciding how long the public comment period should be held open. Unless the exigencies of the situation require otherwise, the public comment period should generally be held open for 30 days after publication' of notice of the settlement to the community.

Kent, Connecticut. Moreover, the EPA, the U.S. Department of Justice, and the Commonwealth of Massachusetts presented a summary of the Consent Decree at an October 26, 1999 meeting of the Citizens Coordinating Council ("CCC"). The CCC, established by EPA in November 1998, is a group of over 30 environmental, business and community leaders from both Massachusetts and Connecticut. The CCC meets monthly, its meetings are open to the public, and it provides a forum for discussion on the status of cleanup activities, and for ensuring citizen input on the ongoing cleanups. Furthermore, on December 2, 1999, EPA held a formal public hearing on the draft reissued Resource Conservation and Recovery Act ("RCRA") Permit, which is a component of the Consent Decree, and at the same time solicited input on the Consent Decree, in Pittsfield. Moreover, on November 3-4, 1999, EPA and MADEP held two days of 'office hours' meetings with several groups or individuals to explain the Consent Decree and answer questions. In addition to these formal meetings, the governments have had numerous additional meetings with individuals or groups to discuss the Consent Decree.

The public participation afforded by the United States on the proposed Consent Decree plainly satisfies all necessary legal requirements.

Comment 3: A number of commenters requested that the governments hold one or more additional public hearings, including public hearings in Connecticut, regarding the proposed Consent Decree.

Response 3: EPA held one formal public hearing on the proposed Consent Decree and the draft reissued RCRA permit. That hearing was December 2, 1999 in Pittsfield, Massachusetts.[3] That

---

[3]At the December 2, 1999 public hearing, three commenters, including one resident of Connecticut, spoke on the record, and their oral comments are responded to herein.

hearing complied with the requirements of Section 3005 of RCRA and 40 C.F.R. § 124.10 for RCRA permits, and no further public hearings are required under statute or regulations.[4] While EPA did not hold a public hearing as such in Connecticut on the proposed Consent Decree, the governments have taken significant steps to solicit public input on the Consent Decree in Connecticut. EPA has held several public meetings on the proposed Consent Decree, as described above in Response 2, including a January 4, 2000 public meeting in Kent, Connecticut. Also, in response to the United States' solicitation of public comment in this regard, the United States has received over 50 separate comments on the proposed Consent Decree from Connecticut individuals or organizations. Moreover, since receiving public comments on the Decree, on April 13, 2000, the United States met in Litchfield, Connecticut with the Housatonic Environmental Action League ("HEAL") to discuss HEAL's concerns.

Accordingly, although no public hearing was required or held in Connecticut for this proposed Consent Decree, the governments have done significant outreach in Connecticut to ensure adequate public participation.

Comment 4: Several commenters object to the Consent Decree on the grounds that the commenters were excluded from the negotiating process, that the negotiations were conducted in private, and that certain information regarding the negotiations continues to be maintained in confidence.

Response 4: It is well settled in law and policy that it is appropriate for the government to conduct private negotiations. Without the ability to discuss the possibility of settlement, and

---

[4]No public hearing is required under CERCLA or the Clean Water Act with respect to the settlement.

engage in a bargaining process, in confidence, settlements could not be attained. Moreover, in this case, the government provided the public with more information and access to the negotiations than is required by law or policy.[5] Thus, the United States continues to believe the settlement process was fair.

The commenters seek privileges or rights beyond what is contemplated by law or government policy. CERCLA, RCRA and government policy provide the public with an opportunity to comment upon a proposed settlement through the public comment period afforded to environmental settlements. 28 C.F.R. § 50.7, 38 Fed. Reg. 19029, 42 U.S.C. § 9622(d), and 42 U.S.C. § 6973. This comment period assures the public an opportunity to participate in the settlement process without requiring the government to offer the public a seat at the negotiating table. The courts have accepted the comment process as adequate to protect the public. United States v. Pitney Bowes, Inc., 25 F.3d 66, 73 (2d Cir. 1994); City of Bloomington v. Westinghouse Elec. Corp., 824 F.2d 531, 537 (7th Cir. 1987); United States v. W.R. Grace & Company-Conn., 185 F.R.D. 184, 192 (D.N.J. 1999); United States v. ABC Ind., 153 F.R.D. 603, 608 (W.D. Mich. 1993); United States v. Mid-State Disposal, Inc., 131 F.R.D. 573, 577 (W.D. Wis. 1990); United States v. Bliss, 132 F.R.D. 58, 60-61 (E.D. Mo. 1990). Even if individual citizens may not be pleased with the end result,[6] the government can conduct

---

[5] A more detailed, but by no means exhaustive, list of the governments' efforts to solicit and incorporate public input concerning the Site into their activities is set out in Exhibit 8 to the Memorandum of Law.

[6] *United States v. BASF-Inmont Corp.*, 819 F. Supp. 601, 606 (E.D. Mich. 1993) (United States able to represent the interests of citizens group in CERCLA action even though there is not complete agreement as to remedy); *United States v. City of New York*, 198 F.3d 360, 366 (2d Cir. 1999) (government representation in Safe Drinking Water Act case is not inadequate simply

settlement discussions in confidence. A court will ultimately evaluate the government's performance considering public comment, and determine whether to accept the settlement.

Given this statutory and policy background, courts frequently affirm the government's ability to conduct private negotiations in the context of environmental settlements. The United States' role is to represent the public interest in negotiations. *United States v. W.R. Grace*, 185 F.R.D. at 191 (quoting *Pennsylvania v. Rizzo*, 530 F.2d 501, 505 (3d Cir. 1976). See also, *Brody v. Spang*, 957 F.2d 1108, 1123 (3d Cir. 1992); *United States v. BASF-Inmont Corp.*, 819 F. Supp. at 606 (a prospective intervener that basically asserts the public interest faces a presumption that the state's representation of the public interest will be adequate). As the First Circuit explains, considering the desirability of environmental settlements, the government's negotiating strategy need not be an open book. "In the CERCLA context, the government is under no obligation to telegraph its settlement offers, divulge its negotiating strategy in advance, or surrender the normal prerogatives of strategic flexibility which any negotiator cherishes. ... So long as it operates in good faith, EPA is at liberty to negotiate and settle with whomever it chooses." *United States v. Cannons Engineering Corporation*, 899 F.2d 79, 93 (1st Cir. 1990).[7] *Also see*, *United States v. Glens Falls Newspapers, Inc.*, 160 F.3d 853 (2d Cir. 1998) (court refused to permit disclosure of confidential settlement negotiations, noting that few cases would ever be settled if the press or public were in attendance at a settlement conference or privy to settlement

---

because the movant would seek more stringent relief).

[7] Although the *Cannons* Court is considering the rights of other potentially liable parties to participate in settlement discussions, the principle of the governments' right to conduct private negotiations holds equal force whether liable or non-liable parties seek to join.

proposals); *United States v. Puerto Rico Electric Power Authority,* 204 F.3d 275, 277 (1st Cir. 2000) (referencing lower court decision in multimedia case where court rejected objections to a settlement based upon lack of public participation in negotiations). In short, the government bears no obligation to invite the public into the negotiations process. *State of Arizona v. Nucor Corporation*, 825 F.Supp. 1452 (D.Az. 1992) (private negotiations are appropriate provided they are conducted in good faith). [8]

Only if evidence suggests that negotiations have been in bad faith might a court depart from the traditional principle protecting the confidentiality of settlement discussion. *Cannons*, 899 F.2d at 93, *Nucor,* 825 F.Supp. 1452. Here there is little question that the negotiations were in good faith. All participants in the negotiation were represented by sophisticated counsel[9] and the negotiations were conducted under the auspices of two third party neutral mediators.[10]

---

[8] Also see, *United States v. Bliss*, 133 F.R.D. 559, 569 (D. Mo. 1990) ("The confidentiality of the negotiations does not have any bearing on the 'candor, openness, and bargaining balance' as between the parties to the negotiations, as to which the Court is fully satisfied")(citations omitted); *United States v. Town of Moreau*, 979 F. Supp 129, 134-135 (N.D.N.Y. 1997) ("parties would be reticent to make any concessions at a settlement conference if they could expect that their statements would be published to the public at large").

[9] "Where a settlement is the product of informed, arms-length bargaining by the EPA, an agency with the technical expertise and the statutory mandate to enforce the nation's environmental protection laws, in conjunction with the Department of Justice ... a presumption of validity attaches to that agreement." *United States v. Rohm & Haas Co.*, 721 F.Supp. 666, 681 (D.N.J. 1989).

[10] The settlement negotiations were also governed by a mediation agreement, signed by all the parties, pursuant to which the negotiations were to be maintained in confidence unless all parties consent to disclosure. Because the negotiations were conducted in the presence of a mediator, the negotiations are also afforded protection from disclosure under Massachusetts law. *See* M.G.L. c. 233 §23C, read in conjunction with M.G.L. c.4 §7 cl.26 and M.G.L. c. 66 §10(a).

Moreover, the Mayor of Pittsfield, and the City's lawyers, were invited to attend settlement discussions to resolve the City's issues relating to re-development. As a result, although not required by CERCLA, these City representatives contributed a more local level of representation of citizen interests to the negotiations. In sum, there is no room to question the governments' good faith, the adequacy of representation, or the propriety of the confidentiality of the negotiations.

Comment 5: A commenter requests a change to the Decree to explicitly recognize that third parties, like the commenter, have interests in the Rest of River remediation, and that such parties shall be entitled to participate in settlement negotiations or other process to resolve issues relating to the Rest of River remediation. Another commenter recommended that EPA continue to publicize and conduct regular public meetings on the Housatonic River issues.

Response 5: The United States does not believe it appropriate at this time to modify the Decree to include the explicit recognition sought by the commenter. EPA's decision regarding the Rest of River cleanup is not being made in the context of entry of this Decree; that being the case, the United States is not making a determination in this context concerning participation by third parties.

The public has opportunities to provide input on the Rest of River decisionmaking. For example, the public has the opportunity to comment on EPA's proposed remedial action for the Rest of River, as presented in EPA's draft modification to the Reissued RCRA Permit. *See* Decree ¶ 22.n. Following EPA's selection of the remedial action, the public has the opportunity to petition for review of the decision before the EPA Environmental Appeals Board , *see* 40 C.F.R. § 124.19, and thereafter at the United States Court of Appeals for the First Circuit. *See*

RCRA § 7006, 42 U.S.C. § 6976.

Beyond these formal public input mechanisms, EPA has undertaken, and will continue to pursue, active public involvement in the Rest of River process. EPA established the CCC to enhance the distribution and discussion of information regarding the planned investigation and cleanup activities at the Site, including the Rest of River. In addition to the CCC, the Rest of River process envisions many other public participation opportunities. EPA has agreed to an extensive external peer review process on the human health risk assessment, the ecological risk assessment and modeling study. Decree ¶ 22.b-j; Appendix J. The public will be allowed to nominate peer reviewers (in order to maintain impartiality, the nominating person or organization will not be disclosed to the selection committee) and will be invited to attend the actual peer review session. Decree, Appendix J. In addition, EPA intends to solicit public comments on major documents submitted as part of the Rest of River process, including those documents that will be part of the peer review.

Moreover, in response to this comment and other discussions with the public, EPA, in April 2000 made commitments to more completely ensure public involvement on the Rest of River. Specifically, EPA agreed to make public an anticipated schedule with interim deadlines for the Rest of River activities, and to hold periodic discussions with affected municipalities in Berkshire County and Connecticut to discuss progress and provide updates on issues of importance to these communities, including potential treatment and disposal options.[11]

Comment 6: One commenter had several information dissemination requests, including the

---

[11]Exhibit 7 to Memorandum of Law, at ¶ 3.

following: a request that EPA allow oral comments into the record of comments; a request for EPA to designate and widely disseminate a toll-free number for citizen calls; and a request that EPA provide a daily 'online' log of comments being received by EPA, such as is done by other federal agencies, for example the Food and Drug Administration. This comment does not specifically object to the proposed settlement.

Response 6: The United States received oral comments into the formal record of comments at the December 2, 1999 public hearing regarding the Consent Decree and the draft reissued RCRA permit. The record of that proceeding was transcribed and is being submitted to the Court with the Motion for Entry. *See* Exhibit 14 to the Memorandum of Law. Otherwise, the United States has, consistent with its practice in environmental cases, required in this action that comments be submitted in writing. This approach is consistent with statutory and regulatory requirements. *See* 42 U.S.C. § 9622(d)(2); 40 C.F.R. § 124.11; 28 C.F.R. § 50.7.

EPA does not believe it is necessary to set up a toll-free number to call and has taken many steps to keeping the public informed. *See* Responses 2-5 above. With respect to a daily online log of comments, EPA did not set up such a system for the proposed Consent Decree; EPA had no legal requirement to do so and did not believe it necessary. However, as noted below, EPA has committed to working more closely with members of the public on EPA website improvements.

Comment 7: A commenter, asserting that citizen participation has not been enhanced by the Citizens Coordinating Council, states that the existence of that body should not influence the review of this settlement. Specific CCC deficiencies asserted by the commenter include the lack of information shared for several months while confidential negotiations continued, and the

proposed changes to the Upper ½ Mile Reach Removal Action Work Plan that were not incorporated by EPA.

Response 7: EPA continues to believe that the CCC is an important component of public participation for future Site cleanups, but at the same time appreciates the feedback from the commenter. During the initial months of the CCC, there was overlap between the confidential Consent Decree negotiations and the CCC activities which did not allow for unlimited discussion; however, during that time, EPA was able to still have specific CCC presentations for public input on cleanups that were going forward, specifically the Upper ½ Mile Reach, the Allendale School cleanup, and the preparation of the On-Plant Consolidation Areas. Based in part on public input, changes were made to those actions, including the placement of a liner and leachate collection system under the Building 71 consolidation area, a more conservative approach to selecting removal areas in the Upper ½ Mile Reach resulting in greater excavation than was previously proposed, a revision of the capping strategy in the Upper ½ Mile Reach resulting in a more uniform cap and a more comprehensive program for long-term monitoring, maintenance and corrective action in the Upper ½ Mile Reach.

EPA is committed to making the CCC as useful as possible going forward. To that end, based on this comment as well as discussions with this commenter and others, in April 2000, EPA publicly committed to work with the Housatonic River Initiative, the CCC and other interested parties to make the CCC process more effective, including requesting that the CCC facilitator monitor the ongoing list of recommendations made by CCC members.[12]

---

[12] *See* Exhibit 7 to the Memorandum of Law, at ¶ 3.

Despite past CCC shortcomings seen by this commenter, this comment does not provide a basis to withdraw from the settlement.

Comment 8: One commenter noted that a Citizen's Coordinating Council should be created in Connecticut. In addition, some commenters noted that a CT DEP project coordinator had not been named in the Reissued RCRA Permit and questioned why the peer review meetings were to be held in Pittsfield, Massachusetts.

Response 8: Currently there are Connecticut members on the CCC and others in Connecticut, including the commenter, have been invited to attend CCC meetings. Thus far, many of the issues taken up the CCC have been focused on the Pittsfield activities since those cleanups are most active at this time. However, the June 7, 2000 CCC meeting was held in southern Berkshire County (Stockbridge) and addressed concerns regarding the Connecticut portion of the Rest of River investigation. Likewise, as other issues in Connecticut or southern Berkshire County become topics for discussion, it is anticipated that those meetings would also be held in a more central location. It should be noted that while EPA is firmly committed to improving the CCC where needed, the agenda for the CCC and the location of the meetings are driven by the CCC itself, not EPA.[13] At the June 7, 2000 CCC meeting, EPA also suggested that semi-annual meetings be held in Connecticut to discuss those issues that most affect Connecticut.

With respect to the inclusion of a Connecticut coordinator in the Reissued RCRA permit, EPA agrees with that comment and is modifying the Reissued RCRA Permit to include a Connecticut Coordinator as requested by the commenter. *See* Decree, Reissued Appendix G, at

---

[13] The commenter or any other member of the public can suggest CCC agenda items to the CCC facilitator.

25.

Finally, the location(s) of the 5 peer review meetings must have the facilities to handle a large conference. EPA will consider holding some of the peer review sessions in a location other than Pittsfield, Massachusetts. Pittsfield was specifically noted in the Consent Decree in order to clarify that the peer reviews would be held close to the Site (i.e., not in Boston or Washington, D.C.).

Comment 9: A commenter expressed concern about the placement in Connecticut of repositories of documents regarding the Site. Specifically, the commenter alleged that one repository, at the Houstatonic Valley Association office in Cornwall Bridge, was inadequate because, the commenter alleges, monetary contributions HVA has received from GE create a conflict of interest and thus the repository was not outside of potential influence of GE. The commenter urged that repositories be in the public arena, have sufficient resources, and that EPA closely monitor the organization, timely receipt, and indexing of documents. Finally, the commenter urged EPA to provide a repository south of Litchfield County, Connecticut.

Response 9: EPA does not see a conflict and has no other information that HVA cannot serve as a document repository. Nonetheless, in response to an oral request by this commenter, EPA, in January 2000, made available the Consent Decree and its attachments and appendices to the following additional locations in Connecticut: the Oliver Wolcott Library in Litchfield; the Cornwall Public Library in Cornwall; and the Kent Library in Kent. Regarding placement of a repository south of Litchfield County, EPA has not done so. EPA has focused the placement of repositories in areas of greatest interest in the Site. The number and placement of the repositories for the Site clearly satisfies all legal requirements. *See* 42 U.S.C. § 9617; 40 C.F.R.

§ 124.33.

Comment 10: Regarding the EPA website and other means of disseminating information, one commenter applauded EPA for its efforts to make the proposed Consent Decree and its components available on the EPA website, and for prompt service in mailing information to citizens wishing to comment. The commenter pointed out that the internet should not be the sole means of providing information to the public, due to differential access to the internet among persons. The commenter also encouraged EPA to provide more information through area newspapers, and that if newspapers are not adequately reporting such information, EPA must provide citizens with periodic newsletters.

Response 10: The United States appreciates the positive feedback on the EPA website and EPA's responsiveness in providing information. EPA is committed to improving its electronic dissemination of information. To that end, in April 2000, EPA committed to incorporating additional website improvements. For example, EPA agreed to consult with Housatonic River Initiative, the Citizens Coordinating Council, and other interested parties to find ways to expand and improve the public's access, via the EPA's website, to important sampling and other data regarding the ongoing cleanups at this Site. EPA also committed to posting sampling results on EPA's website. *See* Exhibit 7 to the Memorandum of Law.

With respect to dissemination of information by means other than the Internet, EPA agrees that the Internet should not become the sole means of disseminating Housatonic River information. In this regard, EPA has 1063 persons in Massachusetts and Connecticut on its mailing list for periodic Site correspondence. Also, EPA has used many information repositories to enhance public participation for the Site. EPA has historically used five information

repositories,[14] and for disseminating the Consent Decree, its attachments and appendices, EPA has submitted information to six additional repositories.[15] EPA is also submitting the administrative record for this Decree to the combined set of information repositories.

With respect to the lack of news articles in Connecticut, EPA obviously does not control what news is published by any paper. The governments' dissemination of information via regular public meetings, the Internet, public mailings and placement of information in the repositories is adequate to keep the public informed as to activities at the Site.

C. Comments on Covenants not to Sue in the Consent Decree

Several persons commented on aspects of the covenants not to sue provided under the Consent Decree. Responses to those comments follow.

Comment 11: A commenter objected to the United States providing a covenant not to sue GE with respect to properties, including residential properties on which GE's contaminated soil was placed as 'fill' material ("fill properties"), on which CERCLA 'removal action', but not 'remedial action', has been performed or is required.

Response 11: As explained more fully below, while Section 122 of CERCLA provides explicitly for covenants not to sue for CERCLA 'remedial actions', that provision does not

---

[14]The five repositories are the Berkshire Athenaeum Public Library in Pittsfield, the Berkshire County Regional Planning Commission in Pittsfield, the Lenox Public Library in Lenox, Simon's Rock College of Bard in Great Barrington, and the EPA New England Superfund Records Center in Boston.

[15]These additional locations are, in Massachusetts, Berkshire County Chamber of Commerce in Pittsfield and the Housatonic River Initiative office in Pittsfield, and in Connecticut, the Oliver Wolcott Library in Litchfield, the Housatonic Valley Association office in Cornwall Bridge, the Cornwall Public Library in Cornwall, and the Kent Library in Kent.

prohibit the United States from providing covenants not to sue in other appropriate circumstances, such as those in the proposed Consent Decree.[16]

EPA designated the response actions to be undertaken under the Decree, except for the Rest of River Remedial Action, as CERCLA "removal actions." EPA's choice of removal actions is a proper and appropriate determination for the Site response actions. *See* Response 25.

The Attorney General has the exclusive power to conduct the litigation in which the United States is a party. *See* 28 U.S.C. § 516. This plenary power includes the discretion to settle cases and/or enter into consent decrees on any appropriate terms. *See Swift & Co. v. United States*, 276 U.S. 311, 331-32 (1928). This power is limited in only one respect: where other statutes provide an express limit. *See* 28 U.S.C. § 516.

Section 122(f) of CERCLA provides such an express limit on the Attorney General's power - but only with respect to settlements involving implementation of *remedial* action. Section 122(f) does not apply, and thus does not limit the Attorney General's discretion, as to

---

[16]Section 122(f)(1) of CERCLA provides as follows:

> (1) Discretionary covenants
>
> The President may, in his discretion, provide any person with a covenant not to sue concerning any liability to the United States under this chapter, including future liability, resulting from a release or threatened release of a hazardous substance addressed by a remedial action, whether that action is onsite or offsite, if each of the following conditions are met:
>
> (A) The covenant not to sue is in the public interest.
>
> (B) The covenant not to sue would expedite response action consistent with the National Contingency Plan under section 9605 of [CERCLA].
>
> (C) The person is in full compliance with a consent decree under section 9606 of [CERCLA](including a consent decree entered into in accordance with this section) for response to the release or threatened release concerned.
>
> (D) The response action has been approved by [EPA].

42 U.S.C. § 9622(f)(1).

other types or aspects of settlements, such as providing covenants in connection with implementation of *removal* actions or recovery of response costs.[17] In the case of removal actions, the Attorney General's broad power to settle lawsuits on appropriate terms applies undiminished.

At least one appellate court has recognized these principles. In *United States v. Hercules, Inc.*, 961 F.2d 796, 798-800 (8th Cir. 1992), the Eighth Circuit held that Section 122(f) does not limit the government's "exclusive authority and plenary power" to settle litigation on terms as it sees fit. The *Hercules* court rejected an attempt to apply the requirements of Section 122(a)-(f) to a cost recovery settlement.

The proposed Consent Decree includes covenants not to sue for the following types of activities: a CERCLA remedial action; a number of CERCLA removal actions; cost recovery pursuant to CERCLA; and natural resource damages pursuant to CERCLA. The covenant not to sue for the CERCLA remedial action is consistent with Section 122(f); for the remaining claims, the Attorney General has exercised her inherent authority to settle litigation to provide present and future liability covenants not to sue in this action.

Comment 12: As noted above, a commenter contended specifically that the United States should not grant a covenant not to sue for residential fill properties, since remediation of the residential fill properties is not subject to EPA approval.

---

[17] CERCLA categorizes all government 'response' actions as either 'removal' actions, or 'remedial' actions. 42 U.S.C. § 101(23), (24), (25). The proposed Consent Decree provides for implementation of a number of CERCLA removal actions; in addition, the 'Rest of the River' response action in the proposed Consent Decree will be implemented as a CERCLA remedial action. *See* Paragraph 22.z of the Consent Decree.

Response 12: Cleanup of fill properties is not being undertaken pursuant to the Decree, but is a separate large-scale cleanup effort. Since 1997, MADEP has required GE to investigate and remediate residential properties in and around Pittsfield on which unacceptable levels of PCB-contaminated fill material have been found. Upon satisfactory completion by GE of a fill property response action, GE submits a Response Action Outcome statement for MADEP review and approval. Pursuant to these requirements and under MADEP's approval, since 1997, GE has remediated over 100 residential fill properties so that any remaining levels of PCB contamination do not pose an unacceptable risk to human health or the environment. This program is continuing, with GE proposing to remediate an additional 30 fill properties in 2000. For fill properties not subject to the Decree, a revised Administrative Consent Order between GE and MADEP will go into effect after entry of the Decree. *See* Decree, Appendix H (provided for informational purposes); *see also*, Exhibit 3.4 to the Memorandum of Law, Declaration of J. Lyn Cutler ("Cutler Declaration").

Through March 31, 1999, EPA had spent approximately $1 million in removal action costs for sampling and assisting MADEP in investigation and cleanup of these residential fill properties. After March 31, 1999, EPA spent approximately $ 0.5 million on those same properties. As part of the proposed Consent Decree, GE agreed to pay EPA's past and future costs related to those residential fill properties (*see* definitions of "U.S. Past Response Costs", "U.S. Future Response Costs", and "Designated Fill Properties" in Section IV, and GE payment requirements in Paragraphs 94.a and 95.a.).[18] In exchange for the cost payment, GE receives

---

[18] The specific identification of the residential fill properties for which EPA is recovering costs from GE under this Consent Decree is in Appendix T to the Decree, "Designated Fill Properties".

under the Decree a covenant not to sue for the Designated Fill Properties. Since the fill properties are already being cleaned up under MADEP oversight, providing the covenant is reasonable. Accordingly, GE receives from the United States a covenant not to sue for present liability for Designated Fill Properties upon GE's payment of costs in the Decree, (*see* Decree ¶ 161.d(ii)), and receives a covenant for future liability for each Designated Fill Property when MADEP issues a Response Action Outcome statement for such property. (*See* Decree ¶161.d(ii)). The United States' covenants are subject to 'reopeners' if new information or previously unknown conditions indicates that a response action is not protective of human health and the environment. Decree ¶ ¶ 162-163.

As discussed above in Response 11, the language of Section 122(f) of CERCLA does not preclude the United States from granting covenants not to sue pursuant to its inherent authority to enter into settlements. Moreover, the Designated Fill Property costs being recovered by EPA in the proposed Consent Decree fit squarely in the category of CERCLA removal action costs that may be recovered under Section 107 of CERCLA, 42 U.S.C. § 9607.

Comment 13: Commenters argued that the Consent Decree unjustly limits the rights of Connecticut property owners and residents by absolving GE of criminal and civil liability. Another commenter expressed concern about the covenants not to sue being too broad, that GE would not be held liable in the future even if they are impacting the River or greater health risks are found, with the result that the community will be recontaminated without the resources to clean it up. An additional commenter was concerned with the fairness of the settlement, and with whether there is still further recourse, and contended that the governments are only requiring the corporation to spend X amount of dollars and then the responsibility is finished, regardless of the

results.

Response 13: Regarding criminal liability, the proposed Consent Decree is very clear that the governments provided GE no relief from criminal liability. Pursuant to Paragraph 175:

> [t]he covenants not to sue set forth above do not pertain to any matters other than those expressly specified in [the proposed Consent Decree paragraphs addressing covenants not to sue by the governments]. The United States, Connecticut and [Massachusetts] reserve, and this Consent Decree is without prejudice to, all rights against Settling Defendant and the City with respect to all other matters, including but not limited to the following: ...
>
> d. Criminal liability.

Regarding civil liability, the governments have provided GE covenants not to sue for particular civil liability in exchange for GE's commitment to complete the proposed Consent Decree's obligations regarding comprehensive Site remediation, natural resource damage recovery, and recovery of government costs. The United States believes that the covenants not to sue provided by the governments are appropriate under the circumstances and do not unjustly limit the rights of property owners.

First, as to the appropriateness of the covenants, the covenants are limited or conditioned in several respects that protect the public from inappropriate releases from liability. Three examples of limitations on such covenants are as follows. First, the future liability covenants not to sue provided GE do not take effect until EPA certifies that a particular removal or remedial action is complete. *See* Paragraph 161.d(i). Second, the covenants not to sue provided GE are subject to satisfactory performance by GE of its obligations under the proposed Consent Decree.

See Paragraph 161.e. Third, the proposed Consent Decree includes reservations by the United States of its rights to pursue GE for future liability if new information or previously unknown conditions, together with any other information, indicate that a Removal Action or Remedial Action is not protective of human health and the environment. *See* Paragraphs 162-163. Such limitations ensure that the covenants will not be overbroad. *See also* Memorandum of Law, Argument A.4.d. for additional limitations on the covenants. In addition, to respond specifically to a particular concern about PCBs being found to be a greater health risk in the future, the proposed Consent Decree addresses EPA's ability to pursue the 'reopeners' in such a situation. *See* Paragraph 42.b of the proposed Consent Decree, regarding information from future studies. Accordingly, while there are limits on EPA's authority to require GE to perform additional response actions, the proposed Consent Decree is designed to minimize the likelihood that the community would be left without resources for addressing new information on PCB contamination.

Second, these covenants not to sue by the governments do not unjustly limit rights of property owners. Initially, the Consent Decree only affects on-Site property owners. Even these covenants will only be in effect if GE successfully completes its obligations for Site response actions which eliminate unacceptable risks to human health or the environment. Also, the covenants in the proposed Consent Decree do not affect third parties' ability to bring tort claims for damages. The remaining issue, then, is whether the covenants not to sue provided by the governments in exchange for, *inter alia*, GE's performance of response actions that minimize risks to human health and the environment affect on-Site property owners' rights to bring other actions against GE. As discussed below, the United States believes the extent of contribution

protection in this action is appropriate. *See* Responses 21-23. With respect to claims of persons not parties to the Decree, while not required to be resolved in this context, EPA has made significant commitments to respond to property owner concerns. *See* Response 22.

Third, the contention that GE's responsibility is to spend X amount of dollars and then the responsibility is finished is not accurate. The Consent Decree imposes virtually no limits on the amounts GE must spend to meet its cleanup obligations.[19] Moreover, as described immediately above, the Decree contains many significant limitations on the covenants.

Comment 14: A commenter expressed concern about how the proposed settlement will affect the liability of GE for contamination released by it and potentially deposited on properties abutting the Housatonic River, such as the New England Log Homes, Inc. ("NELHI") property in Great Barrington, Massachusetts.

Response 14: Under the proposed Consent Decree, GE agrees to address contamination in the sediments and floodplain soils in the Rest of the River. Under the proposed Consent Decree, the Rest of the River includes, generally, contaminated sediments and floodplain soils downstream of the confluence of the East and West Branches of the Housatonic River. *See* ¶ 4 definition of 'Rest of the River'. Downstream of Woods Pond Dam, which is where the NELHI property is located, the Rest of the River includes those areas of the River and its sediments and floodplain (except for Actual/Potential Lawns at residential properties in the floodplain, which are being addressed separately in the proposed Consent Decree at Paragraph 28.b) at which Waste

---

[19] The Decree includes no limitations on the amounts GE must spend on Site cleanups, except for the 1 ½ Mile Reach, in which GE and EPA share the cleanup cost. *See* Decree Paragraphs 103-111.

Materials originating at the GE Plant Area have come to be located and which are being investigated and/or remediated pursuant to this Consent Decree.

The Rest of River contamination is currently being investigated, pursuant to the process delineated in Paragraph 22 of the proposed Consent Decree, and, following the investigation and analysis of alternatives, EPA will seek public comment on a recommended alternative for the Rest of the River. GE remains liable under the proposed Consent Decree to design and implement EPA's remedial action decision for Rest of River sediments and floodplain soils, under EPA oversight and approval, as eventually decided after any appeals and remands. *See* Paragraph 22.z. The NELHI property will be addressed as part of this process.

Comment 15: A comment was received from the owner of Precision Autocraft on Route 7 in Sheffield, Massachusetts. The commenter states several concerns about the water at his facility, including the following: the well water has an awful odor, and is undrinkable; he must purchase drinking water for employees; water stains bathroom facilities, and may affect vehicles they clean. The commenter feels it is highly possible that the water table has been affected by GE pollution, and that other area locations have similar problems. The commenter concludes that it seems inevitable that some kind of water treatment is necessary.

Response 15: Precision Autocraft is located in the floodplain of the Housatonic River, in the portion of the River delineated in the proposed Consent Decree as the Rest of the River. With respect to the process for making a remedial action decision for the sediments and floodplains of the Rest of the River, see the response immediately above. Because the investigation is ongoing, and the Rest of River remedial action decision has not been made, EPA cannot say presently whether, or to what extent, groundwater has been impacted in the Rest of River

(including at the commenter's property) or whether any response actions will be necessary. EPA will be involving the public as the investigation and analysis of alternatives for the Rest of the River progress, and is currently scheduled to seek public comment on a recommended alternative for the Rest of the River in 2003. EPA encourages the commenter to make this comment at that time if the commenter believes it appropriate.

Comment 16: A commenter, stating that GE's responsibility is commensurate with its damage to the river, seeks that a fund be maintained so that if at any time in the future the technology is developed to remove all of the PCBs in the river without damaging the river that this will be accomplished, in recognition that under current dredging techniques, certain low levels of PCBs may have to be endured as preferable to the damage incurred if dredging is undertaken. A related comment stated that EPA must not allow GE to be released from liability after the completion of the first 2 miles of river remediation in Pittsfield, due to the commenter's concern that the amount of river cleanup is inadequate.

Response 16: It is unnecessary to establish a fund for future River work because the River cleanups, upon completion, will address any unacceptable risks to human health or the environment. Moreover, as discussed above in Response 13, the covenants not to sue provided GE under the Decree have significant limitations to protect the public from an overbroad liability release.

The remediation of the River is contemplated in three component pieces: the Upper ½ Mile Reach Removal Action, which has been underway since October 1999; the 1 ½ Mile Reach Removal Action, directly downstream from the Upper ½ Mile Reach, for which EPA is currently conducting an Engineering Evaluation and Cost Analysis to propose a Removal Action for public

comment; and the Rest of the River, which is generally the floodplain soils and river sediments downstream of the confluence of the East and West Branches of the River. An investigation of the scope of the contamination is underway and consideration of cleanup alternatives will be undertaken. Under the Decree, GE is responsible for paying for and completing the Upper ½ Mile Reach Removal Action, and the eventual Rest of River Remedial Action. *See* Decree Paragraphs 20, 22. For the 1 ½ Mile Reach Removal Action, EPA will perform the 1 ½ Mile Reach cleanup, and the cleanup costs will be shared between EPA and GE under the Decree. *See* Decree Paragraphs 21, 103-111. Each selected response action must be protective of human health and the environment.

Comment 17: Several commenters argue the Decree should not be entered because the government failed to determine which is more expensive or effective: (1) government remediation and restoration, followed by cost recovery proceedings against GE; or (2) the process set forth in the proposed Consent Decree.

Response 17: The government did consider this analysis: as with any settlement, the government weighed the benefits of the proposed settlement offer against the cost, time, and likelihood of success of litigation, and potential remedies associated with unilateral EPA action. In this case, the government decided that the proposed Consent Decree offers far more benefits compared to the costs and uncertainties associated with litigation. *See* Memorandum of Law, Argument A.5.c.

If there is no settlement of this matter, the government faces a number of significant uncertainties. To begin, it is unclear if EPA could pay for the response actions outlined in the Consent Decree. EPA funding for response actions comes from the National Superfund which in

turn is funded by Congressional appropriations. Because funding levels for the Superfund program already are insufficient to address all contaminated sites nationwide, and there are competing priorities, EPA may not be able to initiate or complete cleanup actions at this Site. Further, the Trustees may not undertake restoration activities unless and until damages have been recovered from a responsible party. 42 U.S.C. § 9607. Thus, in this case, no restoration work, and possibly none or only a small portion of cleanup work, could proceed unless and until conclusion of litigation -- a fight which could take years with uncertain results.

In short, the government undertook a balancing of the benefits of the proposed settlement against the pros and cons of litigating the matter with GE. The government ultimately determined that the overall recovery, compensation and public benefits of the settlement far outweigh the expense, time, and uncertainties associated with litigation.

Comment 18: Commenters expressed concern whether GE is being held fully accountable for its negative impact on the environment, asserting that the government is holding GE to a reduced standard of responsibility, not making shareowners of GE responsible for the full effects of their PCB dumping in the River, and requesting a comprehensive examination of the responsibility of GE and other companies for the contamination of the lower Housatonic River.

Response 18: Initially, the requirements in the proposed Consent Decree clearly hold GE accountable for its damage to the Housatonic River, and as such is a substantively fair and reasonable settlement. *See* Memorandum of Law, Argument A.4-5.

With respect to the lower River, pursuant to the Decree, GE must complete performance of, and pay for, all response actions necessary to remedy unacceptable risks to human health and the environment. Pursuant to Paragraph 22 of the Decree, GE is responsible for performing and

completing the Rest of River Remedial Action as selected by EPA following specified appeal rights of GE and the public. In addition, on upstream portions of the River, specifically the Upper ½ Mile Reach and the 1 ½ Mile Reach, the governments are holding GE responsible for performing a protective removal action and funding a substantial portion of the removal action, respectively. Accordingly, GE is being held responsible for the contamination in the lower River. *See also* Section III.A, Responses 26-39, and III.H, Responses 62-65.

Comment 19: A commenter questioned whether the proposed Consent Decree and the Massachusetts Administrative Consent Order ("ACO")[20] prevent the government agencies from taking administrative action on those properties ever again or would the post-remediation discovery of evidence of contamination allow further investigation and clean up. The commenter is further concerned that for properties along water bodies, Silver Lake, Goodrich Pond, Unkamet Brook and the River, the proposed Consent Decree and ACO appear to preclude cleanup of recontamination.

Response 19: The United States has a number of protections in place in the proposed Consent Decree to allow for further investigation and cleanup of the Site in particular circumstances, including post-remediation discovery of evidence of contamination.

More specifically, to the extent a property is within the Site, the following are a number of mechanisms by which investigation or cleanup beyond that specified in the proposed Consent Decree can be required:

- Pursuant to Paragraph 39 of the proposed Consent Decree, *Modification of the SOW,*

---

[20]The Massachusetts Administrative Consent Order is Appendix H to the proposed Consent Decree.

Rest of the River SOW, Upper ½ Mile Reach Removal Action Work Plan or Work Plans, EPA can require GE to perform additional work if modification of the work is necessary to achieve and maintain the Performance Standards[21] or to carry out and maintain the effectiveness of a particular Removal or Remedial Action. Limitations on this authority are that the EPA modification is consistent with the scope of the response action for which the modification is required and does not modify the Performance Standards;

-Prior to EPA certifying that any individual response action performed by GE under the proposed Consent Decree is complete, the response action must have been fully performed, and the Performance Standards for such response action met;

- Pursuant to Section XIX of the Decree, EPA may require GE to take action in certain emergency situations or situations which may present an immediate threat to public health or welfare or the environment;

-Both prior to and following its certification of completion of any response action, the Decree has 'reopeners' under which the United States can require GE to perform or pay costs of additional response actions if new information or previously unknown

---

[21]The definition of "Performance Standards" found at Paragraph 4 of the proposed Consent Decree is as follows:

> "Performance Standards" shall mean the cleanup standards, design standards, and other measures and requirements set forth in Section IX of this Consent Decree and those identified as Performance Standards in the SOW, the Removal Action Work Plan for the Upper ½ Mile Reach of Housatonic River (as approved by EPA), the final modification of the Reissued RCRA Permit to select the Rest of the River Remedial Action, or the Rest of the River SOW. For Removal Actions Outside the River, the Performance Standards for Appendix IX + 3 constituents other than PCBs include both the procedures set forth in the SOW for evaluating and setting cleanup standards for such constituents and the cleanup standards which result from following those procedures.

conditions, together with other information indicate to the government that a response action is not protective of human health and the environment. ¶¶ 162-63; *See also* Response 13.

-Pursuant to Section X of the Decree, following completion of the response actions, GE is required to conduct studies and investigations as requested by EPA to permit EPA to conduct periodic reviews of whether the response actions undertaken are protective of human health and the environment. If, pursuant to this review, EPA selects further response actions for the Site, GE may be required, consistent with the 'reopeners' discussed above, to perform such further actions.

Based on these protections, the United States is not precluded from taking action in the future in the event of evidence of contamination or recontamination.

With respect to the particular areas of concern about the effects of recontamination cited by the commenter, the Housatonic River, Silver Lake and Unkamet Brook are covered by the proposed Consent Decree. As the Responses in Section III.F below demonstrate, the Decree contains sufficient protections regarding future recontamination. With respect to Goodrich Pond, it is not part of the Site being addressed in the proposed Consent Decree; accordingly, it is not affected by the Decree. With respect to the Massachusetts ACO generally, Paragraph 11 of the Consent Decree states that properties addressed by the ACO shall not be considered part of the Site, with one exception related to groundwater response actions. *See also* Massachusetts ACO ¶¶ 2.3 and 4.8. In addition, the United States is not bound by the terms of the Massachusetts ACO. Massachusetts ACO ¶ 5.1.

Comment 20: A commenter makes allegations about payoffs, rewards and political

contributions as part of the context in which this Consent Decree has been negotiated. Specific allegations include: GE's political action committee contributing $4500 to a Connecticut member of the U.S. House of Representatives; a reporter who reported on contamination in Pittsfield being 'employed and silenced' by GE; critics of GE regarding the Hudson River being 'hired (co-opted)' by GE; a Connecticut environmental organization that endorses the proposed Consent Decree 'without informing people they have been accepting $35,000 to $40,000 a year from GE'; and that the commenter received an 'insidious recruitment letter' from GE.

Response 20: The United States has no information on the veracity of the allegations, and the commenter provided no evidence to support such allegations. Moreover, such alleged events, whether they occurred or not, had no effect on the settlement of this action. The proposed Consent Decree was negotiated by the Parties in good faith, and is fair, reasonable, consistent with statutory objectives and in the public interest.

D. Contribution Protection/Effect of Decree on Property Owners

The United States received several comments regarding the contribution protection provided to GE in the proposed Consent Decree. The United States also received comments with respect to the effect of the proposed Consent Decree on property owners who are not parties to the Decree. The comments can be categorized into two overall issues: the appropriateness of the scope of contribution protection, and whether the Decree places unfair burdens on property owners. Below are responses to the two categories, including responses to specific comments.

Comment 21: The comments question whether the scope of contribution protection under the Decree is appropriate. Specific comments include the following concerns:

(A) - that GE may argue that contribution protection should extend to residential

properties that did not receive PCB contamination through migration;

(B) - that there is nothing in the Consent Decree to prevent GE from arguing that the Consent Decree extinguishes property damage or emotional distress claims of property owners outside the settlement;

(C) - that contribution protection is being granted for properties that have not yet been identified, with the example of, ten years from now, a property owner will discover that 'waste materials that originated at the GE Plant Area' have migrated to his or her property, but will be unable to recover from GE even the costs of testing the extent of that contamination; and

(D) - that, given the equities, the governments should refuse contribution protection with respect to any residential properties.

Response 21: Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), provides in pertinent part: "[a] person who has resolved its liability to the United States or a State in an administrative or judicially approved settlement shall not be liable for claims for contribution regarding matters addressed in the settlement." Thus, contribution protection is provided by the statute.

As the First Circuit has recognized, Section 113(f) of CERCLA was designed by Congress "to encourage settlements and provide [potentially responsible parties] a measure of finality in return for their willingness to settle." *Cannons*, 899 F.2d at 92, citing H.R. Rep. No. 99-253, Part I, 99th Cong.,1st Sess. 80 (1985), *reprinted in* 1986 U.S. Code Cong. & Admin. News 2835, 2862.

The proposed settlement provides for contribution protection for GE for matters addressed in this Consent Decree. Generally, the parties defined "matters addressed in this Consent Decree" to include the following: all the response action work being performed and to be performed by GE under the Decree; the response actions to be performed by EPA in connection with the 1 ½ Mile Reach (for which GE has payment responsibilities pursuant to

Paragraphs 103-111); all categories of cost recovery to the governments from GE under the Consent Decree; and all natural resource damage and restoration work and other natural resource protection and restoration actions to be completed by GE and payments made by GE to the natural resource trustees.[22]

Response 21(A): With respect to the specific concern that GE may argue that contribution protection should extend to residential properties that did not receive PCB contamination through migration, GE's obligations under the MADEP ACO do not constitute obligations under the Consent Decree, and therefore, GE does not receive contribution protection in the proposed Consent Decree for performance of such ACO obligations. With respect to residential fill properties, therefore, contribution protection only attaches to the extent of reimbursement of EPA's costs regarding the Designated Fill Properties. For residential fill properties that are not Designated Fill Properties, GE would receive no contribution protection under the proposed Consent Decree. Moreover, for Designated Fill Properties for which EPA is recovering its costs from GE under the proposed Consent Decree, GE would only receive contribution protection for the amount of reimbursement of EPA's costs. Other claims by owners of residential fill properties would not be affected by the contribution protection provisions in the proposed Consent Decree.[23] Therefore, the Consent Decree satisfies the

---

[22]The specific definition of "Matters addressed in this Consent Decree" in Paragraph 191 of the proposed Consent Decree is as follows:

> "Matters addressed in this Consent Decree" shall mean all Work performed and to be performed by [GE] pursuant to this Consent Decree, all response actions performed and to be performed by the United States in connection with the 1 ½ Mile Reach Removal Action, all U.S. Future Response Costs, U.S. Oversight Costs, U.S. Past Response Costs, U.S. Interim Response Costs, U.S. Future Rest of River Capped Response Costs, U.S. Rest of River Oversight Costs, U.S. Future Additional Sampling Costs, U.S. Post-Removal/Groundwater Monitoring Costs, DOI Future Costs, DOI Oversight Costs, DOI Past Assessment Costs, NOAA Future Costs, NOAA Oversight Costs, NOAA Past Assessment Costs, Connecticut Future Costs, Connecticut Past Response Costs, Massachusettts Future Response Costs, Massachusetts Oversight Costs, Massachusetts Past Response Costs, Massachusetts Interim Response Costs, Massachusetts Trustee Future Response Costs, Massachusetts Trustee Oversight Costs, any Natural Resource Damages and all Restoration Work and other natural resource protection and restoration actions to be completed and payments to be made by Settling Defendant to the Trustees.

[23]To the extent that this comment or any of the other contribution protection comments is based in part on a concern that the provision will be broadly interpreted, case law states to the contrary,

commenter's concerns.

-Response 21(B): The second specific concern is that there is nothing in the Consent Decree to prevent GE from arguing that the Consent Decree extinguishes property damage or emotional distress claims of property owners outside the settlement. The United States disagrees with that assertion. Initially, no contribution protection attaches with respect to residential properties outside the Site. In addition, Paragraph 196 provides: "[t]he parties do not intend provisions of [Decree paragraphs on contribution protection] to affect in any way the rights of persons with actual or potential claims against the parties referenced in [Decree paragraphs on contribution protection] with respect to any portion of the site for causes of action other than [contribution protection]." Therefore, unless an on-Site property owner's claims are contribution claims, such claims would not be affected.

Moreover, the definition of the term "matters addressed in this Consent Decree", which delineates specific matters addressed, includes many enumerated 'matters addressed', but does not enumerate property damage or emotional distress claims.

-Response 21(C): The third specific concern in this category, that contribution protection is being granted for properties that have not yet been identified, is not warranted. Again, for properties outside the Site, contribution protection does not attach. Moreover, the United States has not provided GE with contribution protection for anything beyond those matters addressed in the settlement. If a property has not been identified, and in the proposed Consent Decree is not being investigated or remediated, that property is not part of the 'Work' being performed at the 'Site' in the settlement, and contribution protection would not attach.

-Response 21(D): The fourth specific comment expressed the view that, given the equities, the governments should refuse contribution protection with respect to any residential properties. Residential properties outside the Site, which are not being investigated or remediated pursuant to the Decree, are not subject to contribution protection. For residential properties within the Site, the United States has appropriately agreed to grant contribution protection if one of the 'matters addressed in this Consent Decree' pertains to such residential property. For example, to the extent that GE performs Work pursuant to this Consent Decree with respect to a residential property within the Housatonic River Floodplain-Current Residential Properties Removal Action, GE would receive contribution protection for the Work it performs pursuant to this Consent Decree. On Designated Fill Properties, the extent of contribution protection that GE receives under the Consent Decree is limited and discussed above Response

---

that Section 113(f) does not require a broad interpretation of 'matters addressed.' *See United States v. Charter International Oil Co.*, "[w]e reject any argument that Section 113(f)(2) itself warrants a broad understanding of 'matters addressed' by the decree... ." 83 F.3d 510, 517 (1st Cir. 1996).

21(A).

Comment 22: The second overall category of comments addressing contribution protection expresses concerns that the proposed settlement burdens innocent property owners with potential future liability in a way that is not in the public interest. Particular Decree provisions of concern to the commenters are the covenants not to sue being provided by and to the governments and GE (Sections XXVI, XXVII and XXVIII), the contribution protection being provided to GE (¶ 191), and the language of Paragraph 189 which provides that parties to the settlement reserve all their rights against persons who are not parties to the proposed Consent Decree. In addition, concern was expressed that property owners are faced with uncertainty about the scope of contribution protection in light of the Decree having the lack of an explicit Decree statement of property owners' rights.

Based on the above concerns, commenters expressed that innocent property owners are exposed to liability for, and the cleanup costs of, future actions to remediate PCBs, and also that such property owners may then not be able to obtain contribution from GE, but yet still may face contribution claims from parties to the settlement. Finally, a commenter stated that the governments must insist now on an explicit Consent Decree statement preserving property owners' private claims, and a specific agreement by GE on what 'contribution' and 'cost recovery' claims are to be barred by the proposed Consent Decree.

Response 22: The contribution protection provided for in the proposed Consent Decree is available by law to persons who settle their CERCLA liability with the government. *See* Section 113(f) of CERCLA. EPA has pursued GE, not the property owners, for liability. The settlement includes substantial obligations on GE for performing and paying for PCB response actions,

accounting for natural resource damages and reimbursing the governments' costs. The settlement does not impose any such obligations on property owners not parties to the settlement. Accordingly, without any obligations by such parties, the settlement likewise provides no contribution protection for non-parties.

Regarding exposure of innocent property owners to liability, EPA, based on receiving this public comment, and other discussions with members of the public, EPA has agreed to provide liability protection for homeowners at the Site who qualify under EPA policy. Specifically, in April 2000, EPA announced:

> EPA will provide a letter of clarification, upon request, to homeowners with contaminated property, stating that the EPA will not pursue innocent homeowners for liability with respect to GE-related PCB contamination on their property. Innocent homeowners are those homeowners who have done nothing to cause or contribute to the contamination.[24]

Such letters of clarification should reduce the likelihood of property owners being in a position of incurring costs and then seeking contribution from GE; however, such a contingent future claim is not ripe for determination by the Court in the context of a motion for entry of the Consent Decree. Such letters also should reduce the likelihood that GE or some other party will pursue innocent homeowners in contribution. With respect to contribution claims against property owners who are not parties to the proposed Consent Decree, were such to occur, the

---

[24] Exhibit 7 to Memorandum of Law. *See also* EPA, "Policy Toward Owners of Residential Property at Superfund Sites," July 3, 1991, which is available at the following internet location: http://es.epa.gov/oeca/osre/910703.html.

United States would determine its response to such an action based on the circumstances of the action. However, presently that issue is not ripe for purposes of evaluating the proposed Consent Decree. *Cf. United States v. Keystone Sanitation Co.*, Civ. A. No. 1:CV-93-1482, slip op. (M.D.Pa. September 10, 1999)(court would not resolve all contingencies in connection with a decision to enter settlement; court also would not reject settlement based on such hypothetical contingencies).

With respect to the specific concern about GE's affirmative use of Section 113(h) of CERCLA, the Decree has little, if any, effect on private claims. As discussed above in Response to Comment 21(A), contribution protection for GE only attaches to the extent of reimbursement of EPA's costs regarding the Designated Fill Properties, and other claims by residential fill property owners outside the Site are not affected by the Decree.

In response to the commenter's statement that the governments must insist on more specific Consent Decree agreements as to the scope of contribution protection and the effect on property owners' rights, the United States disagrees. It is not necessary for the Court to resolve all possible permutations of the terms 'contribution' and 'cost recovery' in determining whether to approve this proposed Consent Decree. As the First Circuit has stated, "[n]ot every aspect of interpretation of a consent decree need be resolved in course of approval of the decree. Rather the court must address so much of the interpretation of the consent decree as needed to rule on the decree's fairness, reasonableness and fidelity to the statute." *United States. v. Charter International Oil Co.*, 83 F.3d 510, 515-516, citing *United States v. Charles George Trucking, Inc.*, 34 F.3d 1081, 1088-89 (1st Cir. 1994).

The United States believes that the proposed Consent Decree is adequately detailed

regarding the scope of contribution protection. Of course, if in the future, a real controversy arises regarding the scope of contribution protection to GE , the United States reserves all its rights to provide its interpretation of how the Consent Decree terms apply to such circumstances.

Comment 23: A commenter states that it is acquiring hydroelectric projects on the River in Connecticut, and expresses concern about the PCBs in the River and behind the dams on the River. The commenter requests a modification to the Decree so that the Decree explicitly states that it does not adversely affect or impair in any way, expressly or implicitly, any rights of third parties against GE for the Rest of River.

Response 23: As discussed above in Responses 21-22, as a result of the settlement and pursuant to CERCLA, GE is provided protection from certain contribution claims. However, that protection extends only to claims for 'matters addressed' in the Consent Decree. Moreover, beyond contribution protection, the Consent Decree already includes explicit language as to the Decree parties' intent that the contribution protection provisions not affect any other actual or potential claims other than claims in contribution. *See* Decree ¶ 196; *see also* Response 21(B). Beyond those assurances, the United States does not believe that Decree modification in this regard is necessary to ensure the Decree's fairness, reasonableness and fidelity to the statute.

E. Other Overall Consent Decree Comments

Comment 24: A commenter made suggestions for the appropriate mechanism for ensuring completion of present and future cleanups. Specifically, he noted that the "[Housatonic River Initiative] court action may lead to your future action in 'hold' position, which sometimes takes place by Judge rulings"; therefore, he believes "EPA should be present as a class with GE to complete the project in decree to be upheld at a later date??", with "[t]itle really to a freeze on the

decree meaning fulfill the Decree as printed today and agreed upon." Then, "onto a 2nd Decree in [unfinished] business in 2-3 years, which could be done by certain documents within decree; as written in present day, such as a certain amount of dollars to finish our work, as outlined in some ways by HRI and others with their personal interest."

Response 24: The United States has chosen the comprehensive approach in the proposed Consent Decree as an appropriate mechanism for ensuring completion of cleanup in the areas identified in the Decree. For ensuring the completion of the present cleanup work, the United States believes it most appropriate to do so through one Consent Decree entered by the court.[25] If the United States were to delay seeking entry of the Decree, GE's comprehensive remediation obligations would not become effective during this period. Accordingly, proceeding with entry of the Decree appears to the United States as the most appropriate mechanism of obtaining prompt, comprehensive cleanup from GE of contaminated areas of the Site.

In response to the commenter's point regarding negotiating a second settlement in 2-3 years to address 'unfinished business' not covered in the Decree, the governments retain their rights for addressing the contamination not covered by the Decree. If the governments determine that cleanup is needed in areas not covered by the Decree, then, as the commenter suggested, a second settlement may be negotiated to address such contamination or other actions may be unilaterally taken by EPA.

Comment 25 : One commenter objects to the Consent Decree on the grounds that EPA avoided

---

[25]The commenter's reference to Housatonic River Initiative's 'court action' is to HRI's February 22, 2000 motion to intervene in the proposed Consent Decree. HRI has since withdrawn that motion, by letter of April 11, 2000.

appropriate procedural safeguards, including requirements for public participation in clean up selection and procedures for establishing clean up standards, by designating some of the clean up work as "removal" and not "remedial" action.

Response 25: Not only did EPA properly characterize response actions at the Site as either "removal" or "remedial" action, depending upon the response action selected, but EPA provided more opportunity for citizen involvement in cleanup selection than is required by law, regulation, or policy. In this case, EPA selected a combination of removal and remedial action: removal actions were chosen for areas outside the River and for the Upper Reach of the River, while a remedial action will be selected for the Rest of the River. EPA has broad discretion to select either removal or remedial response actions to address environmental contamination.[26] *United States v. Vertac Chemical Corp.*, 33 F. Supp.2d 769, 784 (E.D. Ark. 1993)(upholding EPA's selection of removal action under the arbitrary and capricious standard). The definitions of the terms themselves overlap, indicating flexibility in determining whether removal or remedial action is appropriate. EPA's removal/remedial decisions were consistent with CERCLA, the National Contingency Plan ("NCP"),[27] case law, and relevant guidance, and otherwise appropriate given the facts of this case.

1. Legal Background

---

[26] "Congress intended that the term "removal action" be given a broad interpretation." *Kelley v. duPont de Nemours & Company*, 17 F.3d 836, 843 (6th Cir. 1994); *Hatco Corporation v. W.R. Grace & Co.*, 849 F. Supp. 931, 962 (D.N.J. 1994) (some response actions may be carried out as either a removal or remedial action, and a court is not constrained to find either applicable at the expense of the other).

[27] The NCP was promulgated by EPA, at the direction of Congress, to standardize response to environmental contamination. 42 U.S.C. § 9605; 40 C.F.R. Part 300.

The definitions of removal and remedial actions are broad and overlapping.[28] Removal actions are defined by CERCLA to include the "cleanup or removal of released hazardous substances from the environment," "actions as may be necessarily taken in the event of the threat of release of hazardous substances into the environment" and "such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment." 42 U.S.C. § 9601(23). The statute then provides a non-exclusive list of actions that could be classified as removals. 42 U.S.C. § 9601(23). Similarly, the definition of removal action set forth in the NCP mirrors the statutory definition, and provides both a list of types of threats appropriate for removal action and examples of appropriate kinds of removal actions, including fencing, capping, excavation, consolidation, treatment and containment -- activities which are the subject of removal action at this Site. 40 C.F.R. §§ 300.5, 300.415(b)(1), and 300.415(e). The NCP also enumerates factors to consider in determining whether removal actions are appropriate to abate the threat of contamination. 40 C.F.R. § 300.415.[29]

---

[28] See footnote 26 above regarding congressional intent for interpretation of the term "removal action".

[29] The factors are:

(i) Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby population, animals or food chain;

(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

(vi)Threat of fire and explosion;

(vii) The availability of other appropriate Federal or State response mechanisms to respond to the release; and

Similarly, "remedial" actions are defined as those actions taken "to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment," including such actions as permanent relocation of residents, offsite transportation and/or treatment of hazardous substances. 42 U.S.C. § 9601(24). Because the broad definition of "remedial" action overlaps with the broad definition of "removal" action, there are circumstances where a response action may appropriately be undertaken as either.

To provide guidance on use of removal authority to EPA staff, EPA issued a guidance document to communicate national policy on use of removal and remedial authority. *See* Exhibit 15 to the Memorandum of Law, *Guidance on Use of Non-Time Critical Removal Authority in Superfund Response Actions*, February 14, 2000 ("Guidance"). Under this Guidance, in addition to considering the NCP factors set forth in Section 300.415(b)(2), EPA decision makers should also consider the following in determining whether to employ a non-time-critical removal action or a remedial action in a particular situation: (1) the time-sensitivity of the response; (2) the complexity of both the problems to be addressed and the action to be taken; (3) the comprehensiveness of the proposed action; and (4) the likely cost of the action.[30]

EPA need not satisfy all the criteria set forth at 40 C.F.R. § 300.415(b)(2) to select a removal action. EPA need only determine, based upon a consideration of the factors, that "there

---

(viii) Other situations or factors which may pose threats to public health or welfare or the environment.
40 C.F.R. § 300.415.

[30] Although the Guidance was issued after the various Action Memoranda, it nonetheless supports the decisions made by the EPA.

is a threat to public health or welfare of the United States or the environment." 40 C.F.R. § 300.415(b)(1). No one criterion, "taken alone, adequately characterize[s] a response action as a removal or remedial action. The better approach is to view the action. . . in light of several factors: the cost, complexity, and duration of the cleanup; the immediacy of the release or threatened release; and the nature of the action taken." *Tri-County Business Campus v. Clow Corp.*, 792 F. Supp. 984, 993 (E.D. Pa. 1992) (quoting *BCW Associates, Ltd. v. Occidental Chemical Corp.*, 1988 U.S. Dist. LEXIS 11275, 1988 WL 102641 (E.D. Pa. 1988)).[31] Thus, there are numerous decisions affirming EPA's selection of removal action for expensive and expansive cleanups.[32] As explained below, EPA's decisions were appropriate in light of the NCP, the

---

[31] See also, *Vertac*, 33 F. Supp.2d 769, 784 (potential weather events [like potential migration in this case] which might spread contamination justified removal action); *Carlyle Piermont Corporation v. Federal Paper Board Co.*, 742 F. Supp. 814, 820-821 (S.D.N.Y. 1990) (immediacy of environmental threat key determinant of removal compared to remedial); *Channel Master Satellite v. JFD Electronics Corp*, 748 F.Supp. 373, 385 (E.D.N.C. 1990) (imminence of risk or harm to public health or environment determinant of removal action).

[32] See e.g., *Hatco Corp. v. W.R. Grace & Co.*, 849 F. Supp. 931, 953 (D. N.J. 1994) (a broad array of response actions -- the total cost of which exceeded $10 million, and which included the excavation and offsite disposal of almost 25,000 tons of material, the isolation and capping of lagoons and diversion of swale discharge, and ground-water monitoring -- were held to be removal actions consistent with the NCP); *General Electric v. Litton*, 920 F.2d 1415, n.4 (8th Cir. 1991) (a removal action is not converted into a remedial action just because it causes a permanent remedy and is initiated long after discovery of contamination); *Environmental Health Coalition v. Dalton*, slip op. at 6, No. 96-947-BTM (S.D. Cal. Aug. 13, 1996), aff'd 110 F.3d 68 (9th Cir. 1997) (affirming removal action including excavation, dredging, and consolidation on site); *Con-Tech Sales v. Cockerham*, 1991 WL 209791 (E.D. Pa. 1991) (the length of time spent on the response is not dispositive because removals need not be limited to short term, temporary responses); *United States v. Amtreco, Inc.*, 846 F. Supp. 1578, 1582 (M.D. Ga. 1994) (court rejected the argument that removals can only be short term, temporary actions).

The cases cited by the commenter actually support EPA's decision to rely on removal authority for certain portions of the Site. In *State of Minn. v. Kalman W. Abrams Metals, Inc.*, 155 F.3d 1019, 1024 (8th Cir. 1998), the Minnesota Pollution Control Agency (EPA was not involved at this stage in the matter) failed to evaluate the factors set forth in the NCP pursuant to

Guidance factors, and the facts of this case.

2. Analysis of Removal/Remedial Action Selection

In choosing the appropriate response options at the Site, EPA divided the Site into areas where removal and remedial actions were appropriate. EPA evaluated the available information for the targeted areas, and evaluated this information in light of the applicable NCP factors to be considered in determining whether to select a removal action.

EPA chose removal actions for particular areas of the Site by relying upon years of scientific data gathered at the Site. As documented in the Removal Action Memoranda for this Site, the areas selected for removal actions had been subject to considerable study and investigation dating back to the early 1980s. *See* Decree, Appendix B at 5-11, including index of supporting reports; Appendix C at 3-4, including index of supporting reports; and Appendix D at 6, including index of supporting reports. These numerous studies include investigations undertaken by MADEP, EPA, or GE under the supervision of EPA or MADEP. Given this wealth of existing data, EPA determined that further study was not necessary and removal actions were appropriate to respond quickly to human health and environmental threats present at certain portions of the Site.

With respect to the Upper Two Mile Reach, the Action Memorandum documents the exposure to nearby human and animal populations to "high levels of PCBs," that "greatly exceed standards and cleanup levels considered to be protective of public health...." Appendix B at 12-

---

which it is appropriate to conduct a removal action. Here EPA considered such factors, and the commenter does not allege that EPA failed to do so. Similarly, in the other case cited by the commenter, *In Re: Circle Smelting Site*, 6 E.A.D. 410 (1996), the court upheld EPA's decision to undertake a removal action.

14. In addition, the Action Memorandum further evaluates the threat of PCB migration, of PCB contamination of sensitive ecosystems, and that flooding may further spread PCB contamination. Appendix B at 14-16. Accordingly, EPA concluded the Upper Reach satisfied at least four of the NCP criteria for removal action -- exposure to human and animal populations; threat of contaminant migration; threat of sensitive ecosystem contamination; and threat that weather conditions may cause further migration. 40 C.F.R. § 300.415(b)(2)(i), (ii), (iv), and (v), respectively.[33]

Likewise, the Action Memorandum for Allendale School evaluated the relevant factors set forth in the NCP, including the threat to human populations to PCB contamination, and concluded, "there is a potential for future direct contact with hazardous substances in soils." Appendix C at 5-7. Thus, EPA determined that the Allendale School satisfied at least one of the NCP removal action criteria. 40 C.F.R. § 300.415(b)(2)(i).

And finally, with respect to the Removal Actions Outside the River, EPA concluded removal actions were appropriate in all instances due to the threat of PCB exposure to human populations, NCP factor 300.415(b)(2)(i). In addition, some areas presented a threat to sensitive ecosystems, NCP factor 300.415(b)(2)(iv); and some were subject to flooding, NCP factor 300.415(b)(2)(v), and otherwise vulnerable to PCB migration, NCP factor 300.415(b)(2)(ii). Appendix D at 23-29.[34] In sum, with respect to all the removal actions selected, EPA determined

---

[33] See *Hatco v. W.R. Grace*, 849 F. Supp. 931 (D. N.J. 1994) (excavation of hazardous substances was properly characterized as a removal because of the need to prevent migration of contaminants). EPA was similarly concerned in this instance with migration of PCBs. *See* Decree, Appendix B at 12-16; and Appendix D at 23-29.

[34] See footnote 33 immediately above.

based upon the relevant NCP factors that removal action was appropriate and necessary to "abate, prevent, minimize, stabilize, mitigate or eliminate the [threat]." 40 C.F.R. § 300.415(b)(1); *See* Appendix B at 14-16; Appendix C at 5-7; and Appendix D at 23-29.

Although not in place at the time of EPA's decisions, the Guidance also supports the use of removal actions.[35] As discussed in each of the Action Memoranda, EPA considered the time sensitivity of Site conditions, and the benefit of prompt action in reaching its decisions. Appendix B at 20 ("Thorough human health and environmental risk evaluations/assessments have been completed and indicate that immediate action is required"); Appendix C at 11 ("Delayed or no action will result in continuation of the human health and environmental risks by allowing for the continued potential for future direct contact, ingestion, inhalation and adsorption of PCBs and non-PCB hazardous substances by area residents, school children, trespassers, and workers"); and Appendix D at 44 (Delayed or no action will increase human health and environmental risks). In this case, EPA concluded that the relative time sensitivity of Site conditions warranted selection of removal actions. As explained in the Guidance:

> Generally, where a site presents a relatively time-sensitive, non-complex problem that can and should be addressed relatively inexpensively, EPA would normally address the problem by use of removal authority. But even expensive and complex response actions may be removal action candidates if they are relatively time-sensitive–regardless of whether any further action might ultimately be selected for a site. . . . Similarly, even technically complex actions may be appropriately implemented under removal authority. For example, dredging large quantities of contaminated sediment could be conducted using removal authority where such action was the appropriate course for abating or controlling a time-sensitive threat. Guidance at 4.

---

[35] As explained in the Guidance, the relative importance of the Guidance factors will vary in light of the site conditions and contemplated action in question. Guidance at 5.

The specific activities selected by EPA– excavation, capping, disposal, consolidation, treatment, EREs– all may be performed as removals. 42 U.S.C. §9604, 40 C.F.R. 300.415.[36] EPA's decision to rely on such authority for the Upper Reach and Removals Outside the River is consistent with EPA Guidance, CERCLA, the NCP, and case law.[37]

Finally, the removal actions represent EPA's compliance with the preamble to the NCP, which calls for the EPA to balance the need to conduct a definitive characterization of site risks and alternative cleanup options with the need to implement protective measures quickly, and also endorses a bias toward early action to address site risks as early as possible.[38] Also see *Guidance on Implementation of the Superfund Accelerated Cleanup Model (SACM) Under CERCLA and the NCP*, 22 Envtl.L.Rep. (Envtl.L.Inst.) 35493, July 7, 1992 (prompt risk reduction through early action is encouraged).

Given the threats posed by Site conditions, EPA's removal actions achieve the appropriate mix of sufficient scientific information, public review and comment, and prompt action.

3. The Cleanup Decisions Preserve Appropriate Procedural Safeguards While Expediting Response to Contamination

---

[36] Also see cases cited in footnote 32 above.

[37] By contrast EPA chose remedial action for the Rest of River. More studies of the Rest of River are required to define the scope of the problem and facilitate a cleanup decision. The Rest of River also represents a far more complex and potentially expensive problem -- the Rest of River will consider the remaining length of the Housatonic, over 100 river miles, including substantial stretches of broad floodplains and varied habitat. Exhibit 3.1 to Memorandum of Law, Declaration of Bryan Olson ("Olson Declaration") at ¶ 12. See Guidance at 3-5.

[38] 55 Fed. Reg. 8666, 8704 (March 8, 1990).

By choosing "removal" action, the commenter suggests that EPA circumvented (1) the public participation requirements and (2) the Applicable or Relevant and Appropriate Requirements ("ARARs")[39] associated with "remedial" actions. As a preliminary matter, there are no allegations that EPA failed to follow the appropriate procedures regarding public participation and ARARs for removal actions -- other than the bare complaint that EPA should have chosen remedial action instead. Since EPA was justified in selecting removal actions for the Upper Two Mile Reach and areas Outside the River, the applicable ARARs and public participation requirements are derived from removal authorities. Those requirements were followed.

The NCP establishes the standards for applying and waiving ARARs during removal actions, namely that EPA need attain ARARs "to the extent practicable considering the exigencies of the situation." See 40 C.F.R. § 300.415(j). This standard is incorporated into the settlement.[40] Appendix B at 21; Appendix C at 10; and Appendix D at 40-43 (including a discussion of what ARARs apply and why).

In terms of public participation, the commenter does not even contest that EPA followed appropriate procedural safeguards for removal actions; moreover, EPA has long afforded the public multiple opportunities to be heard regarding Site investigations and cleanups.

EPA has provided more opportunity for public involvement than is required by law, regulation or policy. For example, in July 1997, at a time when the governments were trying to

---

[39] In general, ARARs are federal or state requirements which may affect clean up decisions.

[40] Note that achievement of the Performance Standards, including achievement of certain cleanup levels, is an absolute requirement of the Consent Decree.

engage GE in settlement negotiations, the Regional Administrator for EPA Region 1 and the Commissioner for MADEP met with local groups to discuss conditions at the Site and solicit input.[41] On June 3, 1998, EPA issued GE a Unilateral Administrative Order ("UAO" or "Order") requiring GE to undertake a removal action in the Upper ½ Mile Reach and undertake a study of the 1 ½ Mile Reach. On June 4, 1998, EPA made available the administrative record for this UAO and solicited comments from the public through July 10, 1998. The NCP provides that where a removal is appropriate and less than six months exists before on-site activity must begin, the Region must publish a notice of availability of the administrative record within 60 days of the initiation of on-site activity. 40 C.F.R. § 300.415(n)(2)(i). EPA did so, issuing the Administrative Record days after the UAO was issued, to give the public sufficient opportunity to comment. The NCP also requires that EPA provide a 30 day public comment period from the time the administrative record is available, only if appropriate. *Id.* at 300.415(n)(2)(ii) (emphasis added). Even though not required, EPA did this as well, and issued a Response to Comments after the close of the comment period.

In the meantime, in July 1998, the governments and GE hosted a community input session regarding the issues being negotiated with GE. In May 1999, EPA published notice of interim work to be implemented, prior to entry of a consent decree, relating to the Allendale School, the Upper ½ Mile Reach, and On-Plant Consolidation Areas. There was a 30 day comment period on the interim work and EPA discussed the work and answered questions at the May 12, 1999 Citizens Coordinating Council meeting. In short, the public has enjoyed ample

---

[41] Exhibit 8 to the Memorandum of Law.

opportunities to participate in the process of addressing contamination at this Site.

Conclusion

EPA had the legal authority to choose removal actions at the Site given the threat presented, and its decision was not arbitrary and capricious or inconsistent with the NCP. The exigent conditions presented by PCB contamination at the Site, including the threat presented by potential flooding of highly contaminated soils and River sediment, justified EPA's selection of removal actions at the Site. Moreover, the Rest of River remains to be investigated and addressed as a "remedial action," including the public process involved in review and comment upon the proposed cleanup measures and disposal/treatment options.

III. Comments on Remediation in the Consent Decree

A. "Rest of River"

1. Background

The "Rest of River" is the term used to describe that section of the Housatonic River which will be included in the Reissued Resource Conservation and Recovery Act ("RCRA") Permit. The Consent Decree defines the Rest of River generally to include the area below the confluence of the East and West Branches of the Housatonic River at which waste materials originating from the GE facility have come to be located and are being investigated and/or remediated pursuant to the Consent Decree, except those non-bank areas in current residential use. The non-bank areas of current residential properties are excluded from the definition because EPA selected cleanups for those areas in the Action Memorandum for the Removal Actions Outside the River. Decree, Appendix D. The Consent Decree requires GE to clean up

those areas to a 2 parts per million ("ppm") residential standard for PCBs. The remaining areas of the Housatonic River upstream of the Rest of River section include the Upper ½ Mile Reach adjacent to the General Electric ("GE") facility and the 1 ½ Mile Reach, which ends at the Rest of River and is immediately downstream of the Upper ½ Mile Reach. For more specific definitions of the Rest of River and related terms, see Paragraph 4 of the Consent Decree.

The original RCRA permit included the GE facility, some former oxbows of the River, Silver Lake and the Housatonic River. The Consent Decree replaces the RCRA Permit for the above areas with one exception: the Rest of River section of the Housatonic River. For all the Removal Actions Outside the River (including the GE Plant Area, Former Oxbows and Silver Lake) and the Upper ½ Mile Reach, EPA has selected cleanups under CERCLA and those cleanups will be performed under the Consent Decree. For the 1 ½ Mile Reach, the Consent Decree allows for EPA to decide upon and implement the cleanup through a CERCLA process which involves the compilation of an Engineering Evaluation/Cost Analysis ("EE/CA"), and identifying and recommending the removal alternative. In addition, following the completion of the EE/CA and a public comment period on the proposed alternative, the process includes EPA's formalization of the cleanup decision in a decision document called an Action Memorandum. GE is required by the Consent Decree to reimburse the government for costs incurred on the 1 ½ Mile Reach cleanup, subject to a cost sharing arrangement.

Since all other areas that were in the original RCRA Permit are now being addressed under CERCLA and the Consent Decree, the original RCRA permit has been modified and reissued to include only the Rest of River area. *See* Decree, Appendix G. The Reissued RCRA Permit and Consent Decree provide a process for arriving at a cleanup decision for the Rest of

River. The process includes the following steps:

- EPA collects additional data in support of the human health and ecological risk assessments and modeling study. That data will then be turned over to GE which will prepare, for EPA review and approval, a RCRA Facility Investigation Report, which essentially is a summary of the nature and extent of contamination.

- EPA conducts the human health risk assessment, ecological risk assessment and modeling study. All three studies are subject to extensive external peer review processes which will be open to the public. Members of the public will have the ability to nominate peer reviewers. In order to maintain impartiality, the nominating person or organization will not be disclosed to the selection committee.

- GE will submit for EPA review and approval an Interim Media Protection Goals Proposal (cleanup goals) which will take into consideration the results of EPA's risk assessments.

- GE will submit a Corrective Measures Study Proposal for EPA review and approval. The purpose of the Corrective Measures Study is to identify potential cleanup alternatives.

- EPA will then propose the appropriate cleanup in the Statement of Basis document. Members of the public, including GE, will be allowed, during a formal public comment period, to comment on EPA's proposed cleanup.

- As with all RCRA Permit decisions, GE will be allowed to appeal the decision to the EPA Environmental Appeals Board ("EAB") and then to the United States Court of Appeals for the First Circuit, subject to the limitations in Paragraph 22 of the Consent Decree. Other members of the public will also have the right to appeal EPA's decision to the EAB and Court of Appeals. 40 C.F.R. § 124.19; 42 U.S.C. § 6976.

- GE agrees to implement the cleanup following the appeals process.

Decree ¶ 22.

Public involvement is a very important component to the Rest of River process. In addition to the formal appeal rights and the Peer Review process, all the studies and proposals outlined above will be made available to the public. In addition, EPA will be available at the

monthly Citizens' Coordinating Council meetings to discuss details of any of the above plans and proposals.

2. Response to Comments on Rest of River Remedy Process

a. Adequacy of Existing Sampling and Studies

Comment 26: Commenters had general concerns about EPA's knowledge of the nature and extent of contamination.

Response 26: EPA acknowledges that additional testing is needed in order to make a cleanup decision for the Rest of River. The lack of sufficient data or the lack of a comprehensive compilation of existing data was, in part, the reason for separating the Rest of River from the other areas of the Site where EPA was able to decide on appropriate performance standards with existing data. The Consent Decree and Reissued RCRA Permit provide a strategy for obtaining the appropriate amount of information (including, at a minimum, data to perform human and ecological risk assessments and modeling, data to identify cleanup goals and data to analyze cleanup alternatives) for making the cleanup decision. EPA is still in the process of collecting data and evaluating existing data.

Comment 27: A commenter indicated that independent baseline testing (not GE testing) should be performed in the Connecticut portion of the River. In addition, one commenter recommended that language be removed which expresses GE's right to conduct its own risk assessments and submit those risk assessments as part of GE's comment on EPA's risk assessments.

Response 27: Independent baseline testing of the Connecticut portion of the Housatonic has been performed from 1974 to the present by various state and federal agencies. Baseline testing of PCB levels in sediments has been performed by CT DEP, the Connecticut Agricultural

Experiment Station and the US Geological Survey. Baseline sediment transport studies have been performed by the US Geological Survey and the Connecticut Agricultural Experiment Station. Baseline testing of PCB levels in fish and benthic invertebrates has been performed by CT DEP and the Connecticut Department of Health laboratory. Studies have also been performed in accordance with Housatonic River Cooperative Agreements between CT DEP and GE. Study work plans, sampling protocols, laboratory methods, and quality assurance procedures were subject to CT DEP and Connecticut Department of Health review and approval. Quality control has included sample splits with a government agency laboratory at the discretion of CT DEP. Under the Cooperative Agreements, river sediment PCB levels and PCB sediment transport data have been developed by Lawler, Matusky & Skelly Engineers, and PCB levels in fish and benthic invertebrates have been tested by the Academy of Natural Science of Philadelphia. Based upon EPA's review of existing data, additional testing may be performed to supplement existing data.

With regard to the language expressing GE's right to conduct it own risk assessments and submit them as part of the public comment process, EPA cannot prohibit GE from conducting its own studies. In addition, EPA cannot prohibit GE from commenting on EPA's risk assessments. Therefore, this clarifying language is appropriate. However, it should be noted that the Rest of River process included within the Reissued RCRA Permit expressly requires that EPA's risk assessments be taken into account in the development of the Interim Media Protection Goals (cleanup goals). Decree, Appendix G at 17.

Comment 28: A number of persons commented about the amount of testing necessary in the Connecticut portion of the River. Specific comments included:

(A) concern that there has not been a thorough PCB study or floodplain study in the Connecticut portion of the River;

(B) suggestion that more sediment sampling is necessary behind the Shepaug Dam and the Robertson Bleachery Dam;

(C) suggestion that testing is necessary along the banks of the Pomperaug River to determine if PCBs have settled in the river and on adjacent land;

(D) request that the Blackberry River should be tested for PCBs from a GE facility which operated in Norfolk, Connecticut;

(E) request for additional testing of sediment and fish in Candlewood Lake and deep core sampling at the Rocky River Hydroelectric Plant and at the New Milford arm of the lake;

(F) suggestion that sediment sampling upstream of Lake Lillinonah should be performed; and

(G) request for more sampling behind impoundments and in canals and reservoirs associated with hydroelectric facilities in Connecticut.

Response 28: With respect to each of the comments, the data that have been collected in Connecticut are being assembled by EPA and evaluated for data quality, representativeness and completeness. Once EPA's analysis of the data has been completed, EPA will then determine whether additional data collection is necessary to appropriately define the extent of contamination, evaluate potential exposures and risks and determine the necessity of remediation. Also, with respect to the specific comments, additional responses are as follows:

Response 28(A): The State of Connecticut has conducted many PCB studies. As discussed immediately above, considerable baseline monitoring has been performed, studies have been undertaken under the Cooperative Agreements, monitoring of PCB levels in fish and benthic invertebrates continues to take place, and a dam integrity study was performed. The CT DEP has also conducted investigations of potential sources of discharge of PCBs to the Housatonic River and its tributaries. With respect to floodplains, the River does not have extensive floodplains in Connecticut. The River is characterized as a high gradient stream, dropping 10 feet in elevation per river mile from the Massachusetts state line to the headwaters of Lake Lillinoah. The River flows through a steeply sloped valley, confining flood waters to immediate river banks. The

floodplain has been delineated. The Federal Emergency Management Agency ("FEMA") 100-year floodplain maps for each town along hte River have been examined by the CT DEP and no expansive River floodplains are evident. In addition, immediately following a flood in June 1984, the CT DEP sampled recently deposited sediments on the banks of the River at six sites from Canaan to New Milford. No PCBs were detected in any of these samples.

Response 28(B): Previous studies have included surficial and deep core sediment sampling behind the Shepaug Dam, and surficial sediment sampling in the vicinity of the Robertson Bleachery Dam. Bleachery Dam has a height of only 6 feet above the river bed at a location where water flow velocities are relatively high.

Response 28(C): This suggestion will be taken into consideration when deciding on additional sampling for the Rest of River.

Response 28(D): GE operated a wire manufacturing facility in Norfolk, Connecticut. The Blackberry River has not been included in previous studies of PCB contamination of the Housatonic River. The Blackberry River is not part of the Site, so there is no limitation on the United States' further investigation and cleanup. However, the Blackberry River has been included in statewide ambient contaminant monitoring programs. In 1992, three samples of Blackberry River fish were collected and analyzed for total PCBs in edible fillets. The PCB levels were very low and consistent with other high quality streams in Connecticut. A composite sample of brown trout had 0.090 ppm PCB wet weight. Two composite samples of white suckers had 0.048 ppm and 0.060 ppm PCB wet weight. Fish data is generally a good indicator of whether the sediment are contaminated. This data will be reviewed to determine whether more fish or sediment sampling is necessary.

Response 28(E): The CT DEP has conducted assessments of PCB contamination in Candlewood Lake sediments and fish, including the New Milford arm of the lake. Additional monitoring of Candlewood Lake may be conducted during the Rest of River investigation.

Response 28(F): Sediment sampling in upstream shallows of Lake Lillinonah has been conducted in 1980, 1986, and 1992. The sediment data from the upstream shallows and any other relevant existing data will be assembled and evaluated during the Rest of River investigation.

Response 28(G): The data from previous studies associated with the hydroelectric facilities and any other relevant existing data will be assembled and evaluated during the Rest of River investigation.

Comment 29: One commenter noted that the study of the Rest of River should include an

impact analysis of the intended aeration implementation in Lake Lillinonah on the fate and transport of PCBs from bottom sediments behind the Shepaug Dam.

Response 29: It is not expected that the aeration system planned for Lake Lillinonah will impact the fate and transport of PCBs from bottom sediments behind the Shepaug Dam. The aeration system will be a line diffuser system with the diffuser lines suspended 10 feet above the lake bottom to prevent disturbance of lake sediments during diffuser operations, and to maintain a layer of anoxic water between the sediments and the lake fish populations. The PCB transport effects, if any, would be detected in routine trend monitoring of PCB levels in fish in Lakes Lillinonah and Zoar.

Comment 30: One commenter suggested that the land owned by the Schaghticoke Indians adjacent to Bulls Bridge Dam should be included in the definition of lands to be remediated under the definition of "Rest of the River".

Response 30: To the extent that wastes (e.g., PCBs) originating from the GE facility have ended up on land owned by real or alleged members of the Schaghticoke tribe, this land falls under the Site definition. Samples of the sediment in the Bulls Bridge Dam impoundment, which is adjacent to the identified land, have exhibited levels of PCB's ranging from 0.14 ppm to 0.44 ppm total PCB dry weight. The above data and any other relevant existing data will be assembled and evaluated by EPA to determine whether additional data collection is necessary to appropriately define the extent of contamination, evaluate potential exposures and risks and determine the necessity of remediation.

Comment 31: A commenter raised concerns about PCB levels behind Falls Village Dam and Bulls Bridge Dam.

Response 31: PCB levels have been tested behind the Falls Village Dam and the Bulls Bridge Dam. Behind the Falls Village Dam, river sediment samples have exhibited levels of PCBs ranging from 0.25 ppm to 1.22 ppm total PCB dry weight. River sediment samples from the Bulls Bridge impoundment have exhibited levels of PCBs ranging from 0.14 ppm to 0.44 ppm total PCB dry weight. The above data and any other relevant existing data will be assembled and evaluated by EPA to determine whether additional data collection is necessary. Whether remediation is required in these areas will be determined by EPA as part of the decision on the Rest of River remedial action.

Comment 32: A commenter suggested that an analysis of how hydropower operations and the anticipated renovations of the Robertson Bleachery Dam might impact the resuspension and downstream transport of PCB contaminated soil should be performed.

Response 32: Previous sediment transport studies have served to evaluate how hydropower operations impact the resuspension and downstream transport of PCB contaminated sediments. This information will be evaluated and a determination will be made to require additional studies during the Rest of River assessment if previous studies need to be supplemented. The consideration of the impact of anticipated Bleachery Dam renovations on the resuspension and downstream transport of PCB contaminated sediments would be addressed outside of the Consent Decree process and during the process for the issuance of required environmental permits for this project. Construction techniques, environmental controls, and project monitoring would be addressed in permit conditions.

Comment 33 : One commenter questioned how any overlap with the Federal Energy Regulatory Commission ("FERC") relicensure is being handled.

Response 33: The covenant not to sue provided to GE in the Decree does not affect the rights of FERC. Decree ¶ 161. Nonetheless, EPA has also incorporated its PCB contamination concerns into its review of FERC relicensing plans for the River. *See* Attachment to Olson Declaration, November 30, 1999 EPA letter to FERC. The state and federal government agencies will strive to coordinate respective activities as much as possible.

As stated in Response 28 with respect to other relevant Rest of River data, hydroelectric facility data will be assembled and evaluated by EPA to determine whether additional data collection is necessary.

Comment 34 : One commenter questioned whether PCBs are redeposited seasonally in agricultural areas in the Connecticut portion of the river.

Response 34: There is very little current agricultural land in the Housatonic River floodplain in Connecticut. However, the existing data will be assembled and evaluated by EPA during the Rest of River process to ensure that sufficient data exists to determine the nature and extent of PCB contamination in the floodplain and to evaluate the risks posed by such contamination, including in agricultural areas.

Comment 35 : One commenter was concerned that PCB testing funded by GE (via Connecticut's Cooperative Agreement with GE) ends in 2004 and asked whether testing would continue beyond that point.

Response 35: Once a cleanup decision is made for the Rest of River (expected prior to 2004), EPA will determine in that decision whether, or how much, future PCB testing in the River will be necessary. A fundamental responsibility of the CTDEP Water Management Bureau is to monitor the status and trends of water quality conditions in Connecticut and to report on

attainment of Water Quality Standards goals. As such, the Connecticut DEP intends to continue monitoring PCB levels in fish and benthic invertebrates until the data demonstrate that the river has achieved its Class B "fishable/swimmable" water quality goal adopted pursuant to state and federal Clean Water laws. The current monitoring agreement between GE and CT DEP has two objectives, (1) to continue long term trend monitoring, and (2) to monitor changes in PCB levels in Connecticut biota that may result from GE's current remediation project for the Upper 1/2 Mile Reach of the Housatonic River in Pittsfield. The agreement ends in 2004 because it is anticipated that objective (2) will be completed at that time. At that point in time, the CT DEP will reassess its monitoring needs and potential monitoring resources as they relate to EPA's remediation project for the 1 ½ Mile Reach of the River in Pittsfield. *See* Exhibit 3.5 to the Memorandum of Law, Declaration of Charles Fredette ("Fredette Declaration"), at ¶ 4.

Comment 36: A commenter recommended monitoring the water column at the Massachusetts/Connecticut border to determine the "poundage" of PCBs that continue to be transported downstream.

Response 36: The previous PCB transport monitoring studies have demonstrated that it is not technologically feasible to monitor the poundage of PCBs being transported by the Housatonic River at the CT/MA border by sampling the water column. During most flow conditions, PCB levels in the water column are below detection limits. PCB levels can be detected in occasional samples collected during storm events, particularly during the rising stage of the hydrograph. Sampling these unpredictable events is logistically difficult, especially over an extended period of time. PCB transport varies considerably from one storm to another due to differences in factors such as antecedent river flow patterns, precipitation amount, precipitation distribution in

the watershed and precipitation intensity. The CT DEP has monitored trends in PCB transport from Massachusetts since 1978 by measuring PCB levels in aquatic insect larvae in Cornwall and Sharon, Connecticut. The target organisms are efficient bioaccumulators of PCBs, live in the river for one year prior to hatching and are indicative of exposure to PCBs in the water column. Concentrations of PCBs in the organisms represent an integration over time of the PCBs transported through the water column either in a dissolved or suspended phase.

Comment 37: A commenter raised the issue of the importance of sampling behind the Massachusetts' impoundments.

Response 37: General Electric has previously conducted sampling of sediments contained behind impoundments for PCB contamination. In the 1982 Stewart Study, sediment samples were collected to a depth of 8.4 feet in Woods Pond, to a depth of 3.7 feet in Rising Pond, and to a depth of 2.5 feet in the impoundments behind the Columbia Mill Dam and the Willow Mill Dam. Additional and deeper cores were collected by GE in the early 1990s in Woods Pond and Rising Pond. Under the Consent Decree, EPA is responsible for collecting sufficient additional data to be able to perform the human health and ecological risk assessments and to conduct modeling of the fate, transport and bioaccumulation of PCBs. In its work plan to study the "Rest of River," EPA is proposing to collect a minimum of 20-25 sediment cores to a depth of first refusal in both Woods Pond and Rising Pond. Additional sediment samples will be collected upstream of the remaining three dams between Woods Pond and Rising Pond (i.e., Columbia Mill Dam, Willow Mill Dam, and Glendale Dam) along at least one transect with three sampling locations per impoundment. EPA will also sample behind six former dams located south of Woods Pond.

Comment 38: A commenter stressed the need for the posting of warning signs along the Connecticut portion of the river.

Response 38: CT DEP and Connecticut Department of Health use several methods to inform the public about fish consumption advisories for the Housatonic River – (1) warning signs, (2) CT DEP's annual Angler's Guide, (3) pamphlets about PCB levels in Housatonic River fish, and (4) annual press releases at the start of the fishing season. Warning signs posted at boat launches in secure sign sheds have proven to be effective and continue to be used. Warning signs posted on trees along the river have experienced a high rate of vandalism, and use has been discontinued due to high maintenance costs. The Reissued RCRA Permit requires GE to post warning signs at the Agencies' request and perform additional public informational activities. Decree, Appendix G at 28. The current Connecticut Cooperative Agreement between CT DEP and GE provides for public information activities that may include preparing fish consumption advisory signs for posting along the river. EPA will evaluate the current posting and other notification activities and make a determination as to whether other actions, in addition to those outlined above, are necessary for both Massachusetts and Connecticut.

Comment 39: One commenter had concerns about large ice jams at the Rising Pond Dam and the indirect effect that PCB contamination may have on the removal of either the dam, or sediment behind the dam, to alleviate the ice jam problem.

Response 39: The Consent Decree is not the appropriate regulatory mechanism to deal with the specific problem of ice jam formation. However, future maintenance of the Rising Pond Dam and other dams (e.g. risks associated with PCBs during future maintenance dredging or future removal of the dam which may be necessary to alleviate the ice jam problem) will be considered

by EPA during the evaluation of the cleanup alternatives and the resulting cleanup decision for the Rest of the River.

B. On-Plant Consolidation Areas

1. Background

EPA has chosen three areas for potential consolidation of waste. The consolidation areas in the Consent Decree are referred to as follows: Hill 78 On Plant Consolidation Area ("OPCA"), Building 71 OPCA and New York Avenue/Merrill Road OPCA (collectively, OPCAs). Each of these areas is within the area known as Hill 78 and are within the area bounded by New York Avenue, Merrill Road, Tyler Street Extension and the General Dynamics Parking Lot. EPA evaluated several criteria in selecting areas suitable for consolidation of contaminated soil and debris. However, the Agency initially chose the location of the OPCAs for consolidation of wastes based on the historic use of Hill 78 as an industrial landfill and its location outside the 100-year floodplain of the Housatonic River, Silver Lake, and Unkamet Brook. Since the early 1940s, the Hill 78 landfill was used as a historic GE landfill. The Hill 78 landfill was originally developed for the disposal of excavated soils during construction of buildings OP-1 and OP-2 in the early 1940s. GE subsequently used the landfill for disposal of plant demolition and construction debris and other solid wastes. Boring logs for borings advanced within the interior of the landfill indicate the presence of gravel, wood, metal, cement, brick, glass, asphalt, plastic, paper, and ceramic materials. During the winter months, GE also reportedly disposed of snow removed from the GE facility at this location.

2. Response to Comments on On-Plant Consolidation Areas

The Agency received several comments to the Consent Decree which indicated general

and specific objections to the consolidation of wastes at the On-Plant Consolidation Areas. The reasons for the objections were varied and are discussed below along with EPA's rationale for selecting the disposal remedies.

a. Treatment vs. Consolidation

Comment 40: Several commenters indicated their preference for treatment of wastes as opposed to consolidation in a landfill. Some commenters raised concerns about allowing the former Hill 78 landfill to remain in place without treatment of wastes contained within the former Hill 78 landfill. Other commenters indicated that the cost for treatment should not prohibit use of treatment as the preferred remedy and have indicated that GE has performed treatment of contaminated soil in the past. An additional comment requested that the consolidation areas be considered temporary and that treatment of the consolidated wastes be performed immediately, or within 30 years.

Response 40: In general, the Agency separates the universe of wastes into two categories: principal threat wastes and non-principal threat wastes. Principal threat wastes are defined to include liquids, high concentrations of toxic compounds and highly mobile materials. Specifically for this Site, the principal threat wastes include the transformer oils and liquid wastes that have historically been treated at this Site (*See* Decree, Appendix D) and any similar wastes that may be recovered as part of the removal actions at the Site. Any liquids, free product, drums, capacitors and other equipment that contains PCBs within its internal components, and asbestos-containing materials that may be encountered as part of the removal actions will not be added to the consolidation areas. These principal threat wastes will be disposed of appropriately off site either through treatment or through another method that

complies with appropriate disposal regulations.

Because of their physical characteristics, non-liquid PCBs in soil are very persistent, have a low solubility in water and generally do not migrate. Therefore, the majority of the PCB-contaminated soil at this Site may be considered non-principal threat wastes. Non-principal threat wastes, which present a relatively low, long-term threat, will be addressed using a combination of engineering controls (e.g., capping, surface water controls, etc.) and institutional controls (e.g., environmental restrictions and easements). This strategy is consistent with two EPA publications on this issue; *A Guide to Principal Threat and Low Level Threat Wastes*, Superfund Publication 9380.3-06FS, November 1991, Exhibit 16 to the Memorandum of Law, and *Rules of Thumb for Superfund Remedy Selection*, OSWER Directive 9355.0-69, August 1997.[42]

The consolidation areas have been designed to be protective of human health and the environment and to provide long-term effectiveness and reliability in controlling the consolidated non-principal threat wastes. Consolidation is also particularly appropriate here given that the facility is subject to widespread contamination, that most of the material to be consolidated will originate from the GE facility, and that the consolidation areas will be constructed in portions of the facility already containing contaminated soil.

Under the NCP, the Agency's expectation is to use engineering controls, such as containment, for wastes, such as PCB-contaminated soil, that pose a relatively low long-term threat. Moreover, under Agency Directive No. 9355.0-49FS, *Presumptive Remedy for CERCLA*

---

[42]This document is available at the following internet location: http://www.epa.gov/superfund/resources/rules/index.htm.

Municipal Landfill Sites, September 1993[43] and Agency Directive No. 9355.0-67FS, *Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills*, December 1996,[44] the presumptive remedy for CERCLA (i.e., Superfund) municipal landfills and military landfills, respectively, is containment. In addition, treatment, either of contaminated soil throughout the Site or of the contents of the Hill 78 landfill, is also not practicable due to the immense volume of contaminated soils. EPA guidance provides that a large volume of material at a site may make treatment impracticable *(Rules of Thumb for Superfund Remedy Selection*, OSWER Directive 9355.0-69). Also, as stated above, consolidation is particularly appropriate here given that the facility is subject to widespread contamination and that the consolidation areas will be constructed in portions of the facility already subject to contamination.

To summarize, EPA has selected a combination of containment, institutional controls and appropriate off-site disposal, including treatment where required by applicable disposal regulations. The Agency's decision to require appropriate off-site disposal, including treatment where required by applicable disposal regulations, for principal threat wastes and to require consolidation, with specific institutional controls, for non-principal threat wastes is protective, cost effective and consistent with the NCP and subsequent EPA guidances.

b. Adequacy of Existing Hill 78 Contaminant Data

Comment 41: Some comments to the Consent Decree indicated concerns over capping of the

---

[43] This document is available at the following internet location: http://www.epa.gov/oerrpage/superfund/resources/presump/clms.htm.

[44] This document is available at the following internet location: http://www.epa.gov/swerffrr/doc/1296mem.htm.

former Hill 78 landfill without full investigation of materials present in the former landfill. One commenter indicated that full disclosure of the materials in the former Hill 78 landfill has not been made.

Response 41: The Agency considered extensive existing data when approving the use of the former Hill 78 landfill for consolidation of materials. Information on the hazardous materials present within the Hill 78 landfill was presented in the *MCP Phase I Report and Current Assessment Summary, Hill 78 Area/EPA Area 2* (Phase I/CAS), dated May 1995, and prepared by O'Brien & Gere for GE. GE used the landfill for disposal of plant demolition and construction debris and other solid wastes. More than 200 soil samples have been collected from 26 borings located within the former Hill 78 landfill area. All soil samples were analyzed for PCBs. Additional subsurface soil samples were analyzed for semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs). Sample results were previously presented in *MCP Phase II/RCRA Facility Investigation Report for Hill 78 Area/USEPA Area 2*, dated August 1997, and prepared by Blasland, Bouck & Lee for GE. The above information has been and continues to be available at EPA, MA DEP and in the historic Massachusetts' public information repositories. Olson Declaration, at ¶ 4.

GE also will conduct a specific geophysical investigation around the Hill 78 Landfill. This investigation is expected to confirm the lateral extent of the existing Hill 78 Landfill by identifying any buried objects such as drums. The results of this investigation will also be considered by EPA and made available to the public. Olson Declaration, at ¶ 4.

c. Comments Specific to Building 71 and New York Avenue/Merrill Road Areas

Comment 42: Several commenters expressed a general objection to the consolidation of wastes

at the former Building 71 area and the New York Avenue/Merrill Road area. One commenter specifically mentioned concerns about the height of the proposed New York Avenue/Merrill Road OPCA.

Response 42: The Building 71 OPCA was chosen, in part, because of its location in a large natural depression which would help to reduce the aesthetic impact of bringing in additional material, and its location outside the 100-year floodplain of the Housatonic River, Silver Lake, and Unkamet Brook. Additionally, choosing a location that is adjacent to the existing Hill 78 Landfill allows for monitoring of the consolidation areas to be focused within one contiguous area rather than separate areas.

The New York Avenue/Merrill Road OPCA will only be used in the event that additional on-plant consolidation capacity associated with the removal actions is needed beyond that provided by the Hill 78 OPCA and Building 71 OPCA. The New York Avenue/Merrill Road OPCA will be subject to the same performance standards as the Hill 78 and Building 71 OPCAs. As with the Hill 78 and Building 71 OPCAs, the New York Avenue/Merrill Road OPCA location was chosen based on its location outside the floodplain of the Housatonic River, Silver Lake, and Unkamet Brook, its proximity to the other consolidation areas for monitoring purposes and its current use as a soil staging area for unrestricted excavation material from the GE Plant Area.

Because of the Merrill Road reconstruction, the existing road at this intersection will be 10 to 15 feet higher in elevation than its current elevation and thus the visual impact of the landfill will be reduced. In addition, the maximum future elevation of the New York Ave/Merrill Road Area is approximately 23 feet lower than the existing elevation of Hill 78.

Comment 43: One commenter questioned whether EPA made public the consolidation of wastes at the former Building 71 location.

Response 43: Public announcements of the proposed removal actions have included the provisions for consolidation of materials at other areas in addition to the former Hill 78 landfill. The Agency first presented the proposal for on-site consolidation of wastes at the former Building 71 location and the New York Avenue/Merrill Road area to the public during a Citizen Coordinating Council ("CCC") meeting held on March 3, 1999 in Pittsfield, Massachusetts and further discussed the issue at CCC meetings on May 12, 1999, June 2, 1999, and August 4, 1999. EPA also met with members of the Housatonic River Initiative on March 1, 1999 to discuss the OPCA locations. At those meetings, the Agency discussed, among other things, the process for choosing the proposed locations and solicited comments on improving the aesthetics of the consolidation areas. An example of one of the public's ideas that was incorporated into the Decree work plans was combining Hill 78 and Building 71 from a visual perspective while still maintaining a physical separation thus allowing a lower elevation landfill (i.e., one low consolidation area rather than two relatively higher consolidation areas).

There was also other formal public participation on the consolidation issue. In the Spring of 1999, EPA proposed to the public an interim agreement. The interim agreement was intended to enable the government and GE to initiate cleanup activities, prior to the Court's entry of the Consent Decree, at Allendale School and in the Upper ½ Mile Reach of the River, and to consolidate the soils and sediments removed from the schoolyard and the River at two locations on the GE Plant Area. Prior to making a decision to use this interim agreement, EPA invited public comment on the interim agreement and on the terms of the settlement for these areas. The

two consolidation locations identified to the public were the Hill 78 OPCA and the Building 71 OPCA. EPA received public comments on that interim agreement and formally responded to the comments in the *Responsiveness Summary for Allendale School Removal Action, ½ Mile Removal Action and Consolidation*, dated October 1999.

d. Protection of Human Health and the Environment

Comment 44: Several commenters questioned the ability of the consolidation component of the remedy to protect human health and the environment and objected to the location of the consolidation areas in close proximity to Allendale School and the surrounding residences.

Response 44: First, the consolidation areas are located hydrologically downgradient from Allendale Elementary School and the surrounding residences. Any release to groundwater from the consolidation areas, if a release were to occur, would move away from Allendale School and the surrounding residential community. Further, during placement of materials within the Hill 78 Consolidation Areas, GE is required to implement a series of controls aimed at protection of human health and the environment. Specific controls to be implemented include maintaining security of consolidation areas, air monitoring, surface water run-off and erosion controls, and placement of daily and interim covers. Specific information regarding site control measures is detailed in Annex 1 to Appendix E to the Decree, June 1999, *Detailed Work Plan for On-Plant Consolidation Areas*.

Once the material is placed in the OPCA, exposure to the contaminants must occur in order to have risk. The potential exposure pathways are through direct contact with or ingestion of the contaminated soil, direct contact with or ingestion of contaminated groundwater, and inhalation of contaminants in the air. With respect to soil, the Removal Action to be

implemented through the Consent Decree requires that GE prevent both direct contact and ingestion exposure through the installation of an engineered cover. The cover system layers will consist of a composite construction using two impermeable barriers - a 60 mil geomembrane blanket with a geosynthetic clay layer ("GCL") over a layer of consolidated materials. The GCL will, if wetted, swell into a third impermeable barrier. The geomembrane provides the initial level of protection against infiltration. Immediately above the membrane, a porous plastic drainage layer is installed to carry away rain and snow melt thus minimizing infiltration. The surface of the cap will be covered with several feet of clean soil. The top 6 inches will be top soil, treated with lime and fertilizer and seeded with a "conservation mix" to establish vegetation to further reduce infiltration and enhance habitat value for birds. The cover system also helps to prevent infiltration of precipitation.

The cover design, coupled with the physical characteristics of PCBs, will minimize the leaching potential of PCBs to groundwater and thus reduce the potential for contaminants in groundwater to leach out of the landfill. The Consent Decree also requires that GE provide additional measures of protection in the event that any leaching does occur. For the Building 71 and New York Avenue/Merrill Road OPCAs, where the higher concentrations of PCBs and other constituents will be placed, the Consent Decree requires that GE utilize not only ~~a~~ cover system but also a liner and leachate collection system. If leachate is collected in the system, the leachate will then be taken out of the collection system and transported for proper disposal/treatment. Since the groundwater in Pittsfield is not used for drinking water (*See* Response 52), the point of potential exposure for any contaminated groundwater would be at the location where the groundwater discharges into the Housatonic River. The discharge point is over 1000 feet from

the Hill 78 OPCA area. With the groundwater moving at an average velocity of 4 inches/day, it would take many years for the groundwater to reach the River. In order to prevent any potential release to the River, the Consent Decree requires that GE set up a system of monitoring wells immediately adjacent to and surrounding the consolidation areas which will detect any elevated levels of contaminants many years before a release to the River could occur. In addition, the Consent Decree requires that GE monitor a line of perimeter wells which are further away from the OCPAs as an added layer of protection. GE would be required to propose corrective actions if elevated levels of PCBs or other constituents are discovered in any groundwater monitoring wells.

With respect to the air pathway, the cover system is designed to reduce contaminants from being released from the landfill into the air. Air monitoring will be performed to ensure that no unacceptable exposure will occur during construction of the OPCAs. Additional site controls and practices are required to prevent the potential for dust generation. These controls include placement of daily and interim cover and the utilization of water spraying as necessary.

Other measures that have been implemented to protect human health and the environment include the placement of relatively lower levels of contaminated materials in the unlined Hill 78 Consolidation Area, the exclusion from all of the consolidation areas of any liquids, free product, drums, capacitors and other equipment that contains PCBs within its internal components, and asbestos-containing materials, and the siting of the consolidation areas outside the 100-year flood plain of the Housatonic River, Silver Lake, and Unkamet Brook.

e. Long Term Effectiveness

Comment 45 : Several commenters questioned the long term effectiveness and reliability of the

consolidation component of the remedy and the remedy's ability to control sources of releases. Additionally, several commenters indicated that landfills, by the Agency's own admission, leak and that landfills are not a long-term reliable remedy. One commenter stated that a leak has already occurred from the former Hill 78 landfill and that the contents (i.e., drums and liquid wastes) of the former landfill make it an unstable and unreliable area for storing waste. One commenter was concerned that forces of nature (e.g., harsh New England winters, tornadoes, hurricanes and earthquakes) may have a negative effect on the long term effectiveness of the landfill.

Response 45: The installation of a consolidation area cap will prevent precipitation from contacting materials placed in the consolidation areas. Liquids, free product, drums, capacitors and other equipment that contains PCBs within its internal components, or asbestos-containing materials will not be placed in the consolidation areas. The restrictions on liquids and the prevention of infiltration, coupled with the fact that PCBs are hydrophobic, will minimize any leaching potential of PCBs to groundwater.

The Consent Decree also requires GE to inspect and maintain the consolidation area cap and to monitor groundwater to ensure the effectiveness of the cap. GE will be required to perform semi-annual inspections and necessary maintenance, including repair and replacement, of the engineered caps at the consolidation areas to ensure protection of human health and the environment. Following completion of consolidation activities and closure of those areas, GE is required to submit, for EPA review and approval, a proposal for post-closure groundwater monitoring. Post-closure groundwater monitoring will provide for early detection of any release and would allow for response actions to prevent impacts to downgradient receptors. GE is also

required to evaluate groundwater data at all compliance monitoring locations. If groundwater performance standards at compliance points are exceeded, GE is required to evaluate appropriate response actions for EPA review and approval.

The comment regarding EPA's historic statements on landfills references relatively old EPA documents which question the long-term effectiveness of landfill caps which were constructed in the early 1980s. Landfill cap design and monitoring techniques have evolved significantly since those documents were published. In fact, EPA has more recently prescribed containment as the presumptive remedy for Superfund municipal landfills, Agency Directive No. 9355.0-49FS, *Presumptive Remedy for CERCLA Municipal Landfill Sites,* September 1993 and for military landfills, Agency Directive No. 9355.0-67FS, *Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills*, December 1996. Superfund municipal landfills and military landfills are both analogous to the landfill situation we have in Pittsfield. The Consent Decree requires that GE implement modern landfill design features and restricts the type of material that is placed in the OPCAs. The consolidation area cap meets the requirements of the Massachusetts Contingency Plan for the construction and performance of engineered barriers (310 CMR 40.0996(4)(c)) and will also be consistent with the pertinent technical standards under RCRA (40 C.F.R. § 264.310(a)) and state hazardous waste regulations (310 CMR 30.633(1)) for final cover design and construction. These design features will ensure the long-term reliability and effectiveness of the consolidation remedy.

Existing soil and groundwater data collected within the former Hill 78 landfill area indicate that materials currently contained within the former Hill 78 landfill have not resulted in migration of contaminants from the landfill to downgradient receptors, despite the fact that the

existing Hill 78 landfill was not constructed using current technology. Although light, non-aqueous phase liquid (LNAPL) was detected in one monitoring well (H78B-8R) located downgradient of the Hill 78 landfill, there is no indication that this LNAPL has migrated from the landfill. Other monitoring wells located along the perimeter of the landfill have not detected LNAPL, and the LNAPL appears to be limited to a small area. GE is required to conduct additional investigations to confirm this. GE continues to monitor and remove LNAPL from well H78B-8R. EPA's July 6, 1999 conditional approval of the *Detailed Work Plan for On-Plant Consolidation Areas* requires GE to conduct additional investigation for the LNAPL discovered at this location. *See* Decree, Annex 1 to Appendix E.

The materials in the landfill cap are designed to withstand predictable events, like a New England winter, with no adverse effects. However, if damage is done to the landfill cap, either from predictable or non-predictable events, GE would be required to repair the damage or take other corrective actions to ensure that performance standards continue to be met. Decree, Attachment J to Appendix E.

Comment 46: A commenter was concerned about the possibility of an explosion within Hill 78.

Response 46: Based on the information gathered from previous borings advanced in to the landfill, historical disposal information and sampling events, EPA does not believe that the materials in the Hill 78 landfill present a significant risk of explosion.

f. Future Response Actions

Comment 47: Commenters indicated that EPA does not understand the current contents of the former Hill 78 landfill, and therefore, cannot assess what contaminants might be released or the impacts of any release in the future.

Response 47: As noted above in Response 41, there is significant data as to the contents of the Hill 78 landfill. Further, as noted in Response 44, the composition of the cap is expected to minimize infiltration of water and generation of leachate. Moreover, GE is required to establish baseline groundwater conditions for comparison to future groundwater quality. Groundwater will be analyzed for Appendix IX+3 constituents, which includes over 250 chemical compounds. Following completion of consolidation activities and closure of those areas, GE is required to submit for EPA review and approval a proposal for post-closure groundwater monitoring. Groundwater monitoring results will trigger the requirement for additional response actions if performance standards cannot be attained to ensure protection of downgradient receptors.

Comment 48: Commenters raised a concern that, under the Decree, GE will not be liable for future response actions should the consolidation remedy fail.

Response 48: The Decree does provide for additional response actions if Performance Standards are not met. GE is responsible for evaluating appropriate further response actions for EPA review and approval if groundwater Performance Standards are not met. *See* Annex 1 to Appendix E of the Decree. Additionally, GE is required to inspect and maintain the consolidation area caps to ensure the effectiveness of the cap in protecting human health and the environment. See also Response 13 which describes limitations on the Decree's covenants not to sue.

g. Compliance with Other Standards

Comment 49: One commenter questioned the consolidation component's compliance with environmental standards for the management of wastes.

Response 49: Placement of materials in the On-Plant Consolidation Areas will comply, to the

extent practicable, with applicable or relevant and appropriate requirements (ARARs) for the On-Plant Consolidation Areas, in accordance with CERCLA and the NCP. Compliance with identified ARARs is described in Annex 1 to Appendix E of the Decree.

C. Environmental Restrictions and Easements

Comment 50: The Tennessee Gas Pipeline Company ("Tennessee Gas") raises several issues relating to two easements it holds at the Site. Below is a brief background description of the easements followed by a response to the particular comments raised by Tennessee Gas.

Background: Tennessee Gas easements are located within two areas of the Site: a small portion of the Unkamet Brook area (Decree, Appendix E, Figure 2-3) (the "Unkamet Easement"), and a floodplain property located downstream of the confluence (Decree, Appendix E, Figure 2-11) (the "Floodplain Easement"). These two easements constitute a minor portion of the Site, and the Unkamet Brook Easement is located in an area of the Site that has low levels of PCB contamination, according to existing data. Olson Declaration at ¶ 6. As for the Unkamet Easement, if the sampling that will be performed for the Consent Decree shows low or no contamination, Tennessee Gas' concerns will be moot. But, if this sampling shows that cleanup is necessary, the Consent Decree will provide protections to Tennessee Gas. The Floodplain Easement is being evaluated in EPA's risk assessment for the Remedial Action ~~for~~ the Rest of the River. Any remedy for the Rest of the River will consider and be protective of any utility exposures in the Floodplain Easement. Tennessee Gas will be able to comment on the proposed remedy and exercise any appeal rights after EPA selects a remedy for the Rest of the River.

Tennessee Gas' comments are summarized below and a response follows.

Comment 50(A): The commenter alleges that imposing Environmental Restrictions and

Easements ("EREs") on existing easements is inconsistent with the rights of existing easement owners under Massachusetts law. Tennessee Gas also alleges it is prohibited by federal energy law from subordinating its easement to the ERE.

Response 50(A): As the Consent Decree does not require Tennessee Gas to subordinate its easement to an ERE, imposing an ERE does not conflict with Massachusetts easement law. Pursuant to the Consent Decree, GE is required to make best efforts to record an ERE at certain non-residential properties at the Site.[45] GE is required to offer landowners reasonable compensation for the ERE, but there is no binding requirement that any owner consent to an ERE. If a landowner consents, the ERE must be free and clear of all prior liens and encumbrances. Decree ¶¶ 54.c and 57.d. Accordingly, for each property, GE must perform a title search, identify prior real property interests, and make best efforts to negotiate and obtain agreements subordinating such prior interests to the ERE. *See* Decree ¶¶ 54 and 57. If GE cannot obtain a subordination agreement for any non-GE property, GE is obligated to implement a Conditional Solution, which does not require the recordation of an ERE. CD ¶'s 57.d, 57.g. The Consent Decree does not require that Tennessee Gas or any other easement holder consent to an ERE or subordinate its interest to an ERE.

In response to this specific comment, both the Unkamet and Floodplain Easements are located on non-GE property. If Tennessee Gas refuses to consent to a subordination agreement for its easements, the ERE will be unacceptable, and GE will be required to implement a

---

[45] An ERE is a deeded easement and restriction, granted by a landowner, that restricts the landowner from using his or her property in a manner incompatible with a cleanup and grants access rights to the environmental agencies.

Conditional Solution, which does not involve an ERE.[46]

This discussion assumes that EREs and Conditional Solutions are components of the Rest of River Remedial Action. In any event, the plan for the Rest of River Remedial Action will be subject to public comment and ultimately subject to appeal.

Comment 50(B): The commenter expresses concern that EREs may allow contamination to remain in place that may prohibit certain utility maintenance or construction work or require utility easement holders to use special handling procedures and equipment. The commenter states that this approach is inconsistent with the Massachusetts Contingency Plan, which requires that utility easements be cleaned to a level that permits utility construction and maintenance activities without restriction. The commenter urges EPA to require GE to establish special easement cleanup plans to remove PCBs from its utility easement. Existing utility easements also must remain encumbered for future telecommunications and energy improvement and development.

Response 50(B):

i. <u>The Unkamet Easement</u>

---

[46] Pursuant to Paragraphs 54.c and 57.d of the Decree, GE may request that it not be required to obtain executed subordination agreements for prior liens, encumbrances, or similar interests on a property. Such a request must be approved by EPA, subject to a reasonable opportunity for review and comment by MADEP. While EPA will review a request considering the circumstances of each property, any waiver of GE's obligation to obtain a subordination agreement would only be appropriate in narrow circumstances, if at all, where protective conditions apply to the entire property, including the easement/encumbrance at issue. A waiver of a subordination agreement for the Tennessee Gas easements appears inappropriate at this time. If the holder of a utility easement declines to subordinate such easement, EPA, with opportunity for review and comment by MA DEP, may allow the ERE to be placed on the remaining, non-easement portion of the property, if alternate protections are provided for the easement portion of the property.

The Conditional Solution requirements will allow Tennessee Gas to conduct both short-term/emergency and planned utility maintenance and construction in the Unkamet Easement, which will be cleaned to protective standards.[47] The Conditional Solution requirements for the non-GE recreational property containing the Unkamet Easement are as follows: GE must achieve an average PCB concentration in the top 0-3 feet of soil of 10 ppm PCBs or below, and GE must install an engineered barrier if the contamination in the top 15 feet exceeds 100 ppm PCBs. *See* Decree ¶ 34(c)(ii).

The Consent Decree also requires that GE evaluate whether additional response actions at utility corridors are necessary. *See* Decree ¶ 26(e). The SOW states as follows:

> For properties where utilities potentially subject to emergency repair requirements (e.g., water, gas, sewer, electricity, communication, and stormwater) are present and the spatial average PCB concentration for those soils present in the utility corridor that may need to be removed during an emergency repair exceeds 200 ppm, GE shall evaluate whether any additional response actions are necessary. GE shall submit that evaluation, together with a proposal for such actions if needed, to EPA for review and approval.

Decree, Appendix E at 33. Pursuant to this provision, EPA can require GE to conduct additional response actions if the utility easement, which will be a separate spatial averaging area, is greater than 200 ppm PCBs. The Unkamet Easement, therefore, will be cleaned to an average of 10 ppm PCBs or below in the top three feet and EPA retains the authority to require cleanup to 200 ppm PCBs or below in the corridor as a whole. EPA has performed a quantitative risk evaluation and has determined that a 200 ppm cleanup is safe for infrequent, short-term work such as

---

[47] As discussed above, because Tennessee Gas can refuse to consent to a subordination agreement, Tennessee Gas' concerns regarding the effect of an ERE on its easements are moot. Even so, if a person does consent to subordinate its interest, the ERE remedy, at a minimum, provides for protection of short term utility work. Decree ¶ 26(e).

emergency utility work, without requirements for special worker protection equipment. *See* Decree, Appendix D.

As for planned, non-emergency utility work in the Unkamet Easement, the ongoing obligations for implementing Conditional Solutions require GE to conduct further response actions – beyond the initial cleanup performed for Conditional Solutions – "to be protective of any legally permissible future use." Decree ¶ 34.d. For this obligation to arise, the property owner, including an easement holder, must (i) submit a plan to the appropriate governmental authorities to authorize the future use, if such plan is required, and receive any such permit approval, and (ii) provide to the EPA and GE documented evidence of a commitment to such use. Decree ¶ 34.d Within thirty days of EPA's determination that the property owner has satisfied these two criteria, subject to GE's dispute resolution rights, GE must submit a work plan for the additional response actions. Decree ¶ 35.

Accordingly, upon satisfaction of the provisions of Consent Decree Paragraph 34(d), if Tennessee Gas wishes to conduct longer-term/non-emergency construction or maintenance in its utility easement in the future in a legally permissible manner, GE, not Tennessee Gas, will be required to perform the necessary additional response actions that will permit such future use (e.g., excavation below three feet in the easement). A Conditional Solution cleanup, therefore, will allow Tennessee Gas to perform construction for future telecommunications and energy development projects. EPA will evaluate and approve the sampling and cleanup plans that GE submits pursuant to this Conditional Solution requirement.

In addition to these cleanup requirements, if a new underground utility is installed or if existing utilities are repaired or replaced, GE must ensure that the spatial average of the backfill

materials is at or below 10 ppm in the top three feet and 25 ppm for soils at greater depths in the utility corridor. Decree ¶ 26(e), 34(c)(iii). The Consent Decree and SOW also contain provisions for the cleanup of non-PCB constituents. *See* Decree ¶ 24.f; Appendix E, Section 2.2.2.

ii. The Floodplain Easement

Tennessee Gas' Floodplain Easement is in a floodplain property located downstream of the confluence of the east and west branches of the Housatonic River. *See* Decree, Appendix E, Figure 2-11. This easement is not located in the Actual/Potential Lawn of a current residential property in the floodplain. Id. For areas that are not Actual/Potential Lawns of a current residential property in the floodplain, the cleanup performance standards will be determined in the decision-making for the Remedial Action for the Rest of the River.

EPA is currently performing a human health risk assessment for the Rest of the River to evaluate risks posed by contaminated sediments and floodplain soils. The utility work scenario is one of the exposure scenarios that is being evaluated in this risk assessment. Any decision for the Rest of the River will take into account and be protective of the exposure scenarios evaluated in the risk assessment, including any utility easements. EPA's proposed cleanup decision will be subject to public comment and appeal.

The approach EPA and the other governmental parties take in the Consent Decree with respect to utility corridors is consistent with CERCLA. As explained herein, the approach will be protective of current and future utility work – including emergency repairs. This approach is also consistent with the Massachusetts Contingency Plan, even though federal law, and not state law, is applicable here.

As a general matter, other easement holders located in other parts of the Site are also protected by the Decree. For example, other easement holders besides Tennessee Gas may refuse to subordinate their easements to an ERE. Additionally, the same general Conditional Solution cleanup described above for the Unkamet Easement applies to other non-GE, non-residential properties subject to a Removal Action Outside the River. As for easements located on the GE property, the outlines of the cleanup are that GE must achieve a PCB average of 25 ppm or below in the top foot of soil, 200 ppm or below in the 1-6 foot depth, and install a cap at any averaging area where the PCB average exceeds 100 ppm in the top 15 feet. Decree ¶ 25.a. Also, GE is required to evaluate additional response actions for utility corridors exceeding 200 ppm PCBs and ensure that new utility backfill does not exceed 25 ppm PCBs, and EPA retains authority to require additional response actions in utility corridors as necessary. Decree ¶ 25.a.v. In addition, GE, according to Consent Decree ¶ 54.d, is required to ensure that any work in an easement on the GE-owned portion of the GE Plant Area complies with health and safety and soil management protocols. Finally, as for other easements in the Rest of River, the Rest of River cleanup has not yet been determined, though EPA is required to evaluate and be protective of the uses in the properties that are part of the Rest of the River, including easements.

Comment 50(C): EREs may prohibit or constrain utility construction and maintenance, which conflicts with federal pipeline safety laws and regulations requiring and governing such work. Pipeline safety and pipeline worker exposure limits should be added as a requirement that is applicable or relevant and appropriate ("ARAR") under the Consent Decree.

Response 50(C): First, as described above in Response 50(B), the Conditional Solution cleanup at the recreational, non-GE property where the Unkamet Easement is located is designed to allow

for utility construction and maintenance. Second, EPA in selecting a cleanup plan for the Rest of the River is required to take into account and be protective of uses such as Tennessee Gas' Floodplain Easement. There is, accordingly, no conflict with federal pipeline safety laws and regulations.

The Consent Decree nowhere excuses compliance with the Occupational Safety and Health Act ("OSHA") or any federal pipeline safety laws. To the contrary, the Consent Decree expressly provides that "[a]ll activities undertaken by Settling Defendant shall be performed in accordance with the requirements of all applicable federal and state laws and regulations." Decree ¶ 8.a. In addition to this Consent Decree requirement, the National Contingency Plan requires that CERCLA actions comply with OSHA standards relating to cleanup work. 40 C.F.R. § 300.150.

Pipeline safety regulations and requirements of OSHA are not ARARs because they are employee protection laws and not environmental standards. 55 Fed. Reg. 8679-8680 (March 8, 1990). Even though they are not ARARs, these standards "apply of their own force, not through the CERCLA process." Id.

Comment 51: Commenters claim that the cleanup options available to commercial property owners – the Environmental Restriction and Easement or the Conditional Solution – do not allow the property owners to operate without a "cloud of contamination" and only allow future construction or expansion after negotiations with GE and the regulatory agencies. The commenter is concerned there are no assurances that the commercial property owners can borrow money or that they will be able to grow or sell their business in the future, and urges reconsideration of the portion of the Consent Decree affecting the commercial property owners in

a process that considers the property owners.

Response 51: The Consent Decree gives the commercial property owners two cleanup options, each of which allows the property owner to use their property for the present commercial use and provides for flexibility for future development. The choice involving grants of EREs consists of a cleanup to commercial standards – for PCBs, a cleanup to an average of 25 ppm or below in the first foot of soil, an average of 200 ppm or below in the 1-6 foot depths, and a cap if soils exceed 100 ppm in the first 15 feet – together with the imposition of a recorded ERE. Decree ¶ 26. This cleanup will allow the commercial property owner to use safely his or her property for its present commercial use. EPA has performed a quantitative risk evaluation and has determined that this level of cleanup is fully protective of existing commercial uses. *See* Decree, Appendix D. If a landowner consents to an ERE, the ERE allows the existing commercial use to continue but places certain restrictions on the property: for example, a commercial property cannot be converted to residential or daycare use and some digging is prohibited, unless additional assessment and/or other response actions are performed. Decree, Appendix O at 7.

GE is required to make "best efforts" to obtain and record EREs from non-GE commercial property owners. Decree ¶ 56.a. The Consent Decree defines "best efforts" as a GE offer to the landowner to pay all transaction costs associated with obtaining and recording the ERE, including appraisal costs, plus either of the following two values, at GE's option, (i) the value of the ERE as determined by appraisal, according to a formula established by the Consent Decree, or (ii) 18% of the most recent assessed value of the property according to the City of Pittsfield Tax Assessor's Office. Decree ¶ 60.a. It bears emphasis that an ERE is not required and that a landowner has to consent to impose an ERE on his or her property.

If a landowner does not agree to an ERE, a Conditional Solution will be implemented. A Conditional Solution involves a cleanup that is protective of the current use of the property without an ERE. For example, for a property in commercial use, the Conditional Solution involves a cleanup to commercial standards similar to that described above for the ERE approach, except that the PCB cleanup is in the first three feet of soil and not just the first foot. Like the ERE cleanup, the Conditional Solution approach is fully protective for existing commercial uses. As to future uses or development, GE, under the Conditional Solution approach, is required to perform additional cleanup – beyond the three foot cleanup – "to be protective of any legally permissible future use." Decree ¶ 34.d. There are only two requirements for this obligation to arise. The property owner must (i) submit a plan to and receive the approval of the appropriate governmental authorities (such as a planning board or conservation commission) to authorize the future use, if such plan or approval is required, and (ii) provide to the EPA and GE documented evidence of a commitment to such use. Decree ¶ 34.d. Within thirty days of EPA's determination that the property owner has satisfied these two criteria, subject to GE's dispute resolution rights, GE must submit a work plan for the additional response actions and then must perform additional response actions as EPA requires. Decree ¶ 35.

GE's obligation to perform additional response actions for future uses will allow a commercial property owner to conduct facility/property modifications and expansions, with GE bearing the cost of remediation necessary to accommodate such changes. For example, if a landowner needs to expand, and in doing so is required to place a foundation below three feet, GE will bear the cost of managing and disposing of any contaminated soil. *See* Decree ¶

34(d)(iii)(C). Additionally, if the commercial landowner wants to convert to residential or recreational use and can legally do so, GE will bear the cost of any cleanup necessary to accommodate such change in use. Decree ¶ 34(d)(i) and (ii).

This obligation of GE is an enforceable part of the Consent Decree. GE will be subject to stipulated penalties and any other enforcement options available to the Plaintiffs if GE fails to fulfill its Conditional Solution obligations. A property owner does not have to negotiate with GE to use this option. The property owner merely has to satisfy the two criteria mentioned above to trigger GE's additional work obligations.

In addition to a PCB cleanup, both the ERE and the Conditional Solution will involve a cleanup of non-PCB constituents that will be protective of the current commercial use and will be protective of any future legally permissible use for a Conditional Solution cleanup.

As for potential limits on commercial owners ability to borrow, EPA and MADEP held a "bankers forum" on January 18, 2000. At the forum the Agencies described the two cleanup options available to the commercial property owners, and the Agencies and representatives from three area banks that engage in commercial lending answered questions from the public. The purpose of the forum was to allow the property owners to hear from the Agencies and the banks directly.

At the forum, the bankers stated that the Consent Decree will improve the lending climate. The United States believes that the implementation of the Consent Decree will significantly improve the lending possibilities for the commercial properties. After the Consent Decree is implemented, the commercial properties will have been thoroughly investigated, via grid sampling, and remediated if necessary. GE will remain liable if unknown conditions render

the cleanup unprotective. Accordingly, when deciding to lend, a bank should know that a commercial property at the Site has been investigated, know the results of those investigations, and know that the property has been remediated for current use if necessary. This information and the limitations on the covenants under the Consent Decree (*see* Response 13) should remove the uncertainty that is a major factor in the reluctance of banks to lend on possibly contaminated property. Moreover, CERCLA contains "safe harbor" provisions that protect a secured lender from liability, even after foreclosure, as long as the lender does not participate in the management of the borrower. Section 101(20)(E) of CERCLA.

D. Future Use of Groundwater

Comment 52: Commenters indicated that the Consent Decree does not protect the future use of Pittsfield's groundwater supply as a source of potable water.

Response 52: EPA believes that the groundwater performance standards set forth by the Consent Decree are appropriate for protection of groundwater based upon the City's current and foreseeable use of surface water resources for drinking water, the Commonwealth of Massachusetts' regulations regarding groundwater pursuant to M.G.L. c. 21E, and the Pittsfield Department of Health regulations for private wells.

The Statement of Work (SOW) under the Consent Decree sets forth the technical requirements that GE must follow to address groundwater on and in the vicinity of the GE Plant Area. Decree, Appendix E, Section 2.7 and Attachment H. The groundwater performance standards set forth in the SOW are based upon and are consistent with the requirements to address groundwater under the Massachusetts Contingency Plan (MCP) (310 CMR 40.0932). The MCP categorizes groundwater based upon groundwater's current and/or future use as

drinking water (GW-1), its potential to act as a source of volatile constituents to indoor air (GW-2), and its potential to discharge to surface water (GW-3). By default, all groundwater is, at a minimum, categorized as GW-3. Groundwater at a site may also be GW-2 and/or GW-1, depending on site-specific factors. The groundwater categories apply to both groundwater currently affected by the release of oil and/or hazardous materials and any area to which groundwater affected by the release is expected to migrate. *See* Section III.F, Responses 58-60 with regard to protection from recontamination.

The SOW delineates five Groundwater Management Areas (GMAs), which are largely based on geographic locations, similarities in hydrogeological conditions, known plumes/NAPL sources, likely potential receptors, and existing or planned removal action areas. Some areas of the Site are not part of the GMAs. These areas are either not expected to have groundwater impacts or will be included in the investigation and decision-making for the Rest of River. In accordance with 310 CMR 40.0932, groundwater for the five GMAs is categorized as GW-2 and GW-3. For groundwater to be considered GW-1, the MCP requires groundwater affected by the release to be within a Current Drinking Water Source Area or within a Potential Drinking Water Source Area. For each GMA, groundwater does not meet the MCP requirements to be considered as GW-1, and, therefore, under State of Massachusetts regulations, GW-1 (i.e., drinking water) performance standards need not be attained.

The criteria for a Current Drinking Water Source Area, as defined in the MCP (310 CMR 40.0006), are groundwater located:

- within the Zone II for a public water supply;
- within the Interim Wellhead Protection Area for a public water supply;
- within the Zone A of a Class A surface water body used as a public water supply; or

- within 500 feet of a private water supply well.

The Massachusetts Geographic Information System (MASSGIS) maintains mapped areas of groundwater resources for the Commonwealth of Massachusetts. The Massachusetts Department of Environmental Protection mapped the location of the five GMAs and groundwater resources for Pittsfield. Review of these data indicates that groundwater for the five GMAs is not located within a Zone II for a public water supply, within the Interim Wellhead Protection Area for a public water supply, or within the Zone A of a Class A surface water body used as a public water supply (see Figure 1). Private water supply wells are not typically identified in the MASSGIS database. However, under the MCP, private wells need not be categorized as GW-1 if the private water supply was not installed in conformance with applicable laws (310 CMR 40.0932(5)(d)(3)). Effective December 16, 1999, the City of Pittsfield, Department of Health Well Drilling Regulations provide that use of any existing private wells located in an "Area of Concern" must cease immediately. The "Area of Concern" refers to an approximate area encompassing the GE Plant plus a 200-foot buffer zone. The owner of a well in the Area of Concern must decommission the well or apply for a permit from the Health Department. The regulations also state that there is a presumption that construction of new private wells in the Area of Concern shall be prohibited, unless the applicant can demonstrate that the well will not pose a threat to public health or interfere with any groundwater or other remediation systems. With respect to existing wells, EPA has reviewed records from the Pittsfield Assessors Office, Pittsfield Department of Public Works and interviewed citizens of the applicable neighborhoods and could not locate a drinking water well within the the aforementioned "Area of Concern".

The criteria for a Potential Drinking Water Source Area, as defined in the MCP, are

groundwater located:

- 500 feet or more from a public water supply distribution pipeline;
- within an area designated by a municipality specifically for the protection of groundwater quality to ensure its availability for use as a potable water supply; or
- within a Potentially Productive Aquifer that has not been excluded as a Non-Potential Drinking Water Source Area.

Groundwater associated with the five GMAs also does not meet the criteria of a Potential Drinking Water Source Area. The entire area encompassed by the five GMAs is serviced by municipal water that is supplied in its entirety by surface water sources. Additionally, the GMAs do not overlie any potentially productive aquifers. Under the MCP, potentially productive aquifers are defined as aquifers which have been delineated by the U.S. Geological Survey (USGS) as a high or medium yield aquifer. However, under the MCP, the mere presence of a high or medium yield aquifer does not automatically require that the area overlying the aquifer be considered a potential drinking water source area. The MCP also factors in population density and land use (Non-Potential Drinking Water Source Area, 310 CMR 40.0006), recognizing that aquifers located in heavily developed areas may not be suitable for use as a drinking water resource. It should also be noted that the Pittsfield Comprehensive Development Plan (City of Pittsfield and Fugro McClelland, 1993) identified four aquifers that represent potential alternative water supply resources. None of the four areas are encompassed by the five GMAs.

Accordingly, the groundwater performance standards in the Decree are appropriate based on the City's current and foreseeable use of surface water resources for drinking water, as well as state and local regulations.

E. Protectiveness of Cleanup Standards

1. Introduction

EPA selected the Performance Standards (cleanup standards) based mainly on evaluations of both human health and ecological risk. Most comments focused on the human health-related issues related to cleanup standards for the areas that are outside of the Housatonic River (Removal Actions Outside the River).

The approach used at this Site for human health risk is consistent with the approach used for sites throughout the country. EPA has identified PCBs as being the most prevalent compound and the main chemical of concern at the Site. The justification for the PCB cleanup levels for the relevant areas of the Site can be found in an August 4, 1999 memo from Ann-Marie Burke, EPA to Richard Cavagnero, EPA, *Protectiveness of Cleanup Levels for Removal Actions Outside the River*, ("Protectiveness Memo"). Decree, Appendix D. The extent of response actions necessary to meet the numerical risk-based cleanup levels will be determined by a spatial averaging methodology.

For chemicals other than PCBs, additional response actions will be required for those hazardous substances whose concentrations exceed, after factoring in the required response actions for PCBs, EPA Preliminary Remediation Goals, background levels, Massachusetts Contingency Plan Method 1 Standards or other EPA-approved risk based concentrations. Decree ¶ 24.f. The above goals and default standards, with the exception of background levels, are developed using a conservative risk analysis that is consistent with the approach used in the Protectiveness Memo.

2. Response to Comments on Protectiveness of Cleanup Standards

Comment 53: Commenters were concerned about the use of a spatial averaging approach to determine compliance with cleanup standards. One of those commenters noted that this

approach may leave "hot spots".

Response 53: Averaging of contaminant concentrations in soil to estimate the concentration to which a person is exposed over time is an acceptable method, assuming sufficient data exists. If insuffient data exists, the spatial average may not adequately represent an estimate of the mean concentration; it may estimate either a mean that is too high or too low. For this reason, EPA has coupled the spatial averaging approach with a requirement for a certain amount of sampling. The required sampling generally includes taking samples at the approximate location of nodes of certain sized grids depending on the use (e.g. 25-foot grid for residential use, 50-foot grid for recreational use and off-site commercial use, and a 100-foot grid for on-site commercial/industrial use). This allows for an adequate sample size to estimate a mean concentration and thus providing a reasonable representation of the concentration of PCBs that a person would contact over time.

A "hot spot" occurs when one area of a property has much higher concentrations than the remaining portions of the property yet overall average concentrations may still meet the cleanup standard. The Consent Decree includes provisions to ensure that "hot spot" concentrations are addressed. These provisions include a requirement to incorporate one of the following: "not-to-exceed" concentrations, maximum sizes for averaging areas, or a proposed averaging area (with approval from EPA) that appropriately defines the exposure area (*see* Technical Attachment E to Appendix E to the Consent Decree). All three of the above, in addition to compliance with the average concentration and applicable sampling grids, will result in the elimination of any hot spots that create unacceptable risks.

Comment 54: Comments questioned the protectiveness of different cleanup levels for

commercial versus residential properties.

Response 54: Commercial properties need not necessarily be cleaned up to the same levels as residential properties in order to provide the equivalent level of human health protection. Differences in cleanup standards reflect differences in type, frequency and intensity of exposure. The differences in exposure assumptions are set out in the Protectiveness Memo in Appendix D to the Consent Decree. The cleanup levels that have been selected are protective and supported by the data.

Comment 55: One commenter noted that the health studies being conducted by the Massachusetts Department of Public Health ("MDPH") compare site-related blood serum levels to an outdated blood serum background level. One commenter also pointed out several new studies that show potential links between PCB exposure and health effects. One commenter was concerned about possible elevated cancer rates in the vicinity of the Site and among GE workers.

Response 55: EPA has not considered the preliminary health studies conducted by MDPH in the cleanup decision for this Site. Therefore, the concern about the flaws related to the blood serum background level does not apply to the Consent Decree. EPA instead relied on PCB toxicity values for cancer and non-cancer effects that were developed from many peer reviewed studies. This approach is consistent with the approach used nationally at other EPA sites. In addition, under the Decree, EPA has reserved its rights to require GE to perform or pay for additional activities if new information or previously unknown conditions indicate that any cleanup established in the Consent Decree is no longer protective of human health and environment. The information or conditions can include certain studies or groups of studies, regarding the effects of PCBs, which are relevant and are reliable based on scientifically valid principles. *See* Paragraphs

42, 162 and 163 of the Consent Decree.

With regard to potential elevated cancer rates, MDPH is in the process of conducting health studies, in part, to determine whether PCB exposure has caused health effects in Pittsfield. That study is ongoing. The responsibility of EPA is to determine if unacceptable risks exist and, if so, to take response actions to eliminate the unacceptable risks. EPA has concluded that unacceptable health risks exist at the Site, and the Consent Decree is intended to provide the mechanism to abate those risks.

Comment 56: One commenter was concerned that the PCB "Expert Panel" findings would not be publicized prior to the entry of the Consent Decree. The commenter also noted that the PCB Expert Panel's findings have been "inexplicably delayed beyond the CD Comment deadline".

Response 56: The PCB Expert Panel is a group of experts brought together by MDPH to provide their opinion as to whether, and to what extent, PCBs are harmful to humans. The timeline for the Expert Panel's findings has not been influenced by the Consent Decree comment period deadline. The PCB Panel is an independent group not sponsored by EPA, and is proceeding at its own pace. EPA has already concluded that the PCBs at this Site pose an unacceptable health risk and that a cleanup is necessary.

Comment 57: The commenter asks whether the River will be safe to eat and drink from, and whether the River will still be unsafe when the settlement is fulfilled. Other commenters were generally concerned about the risks posed by PCBs in the River.

Response 57: The combination of response actions for the Removal Actions Outside the River, the Upper ½ Mile Reach, the 1 ½ Mile Reach and the Rest of River will result in an overall cleanup that is protective of human health and the environment.

F. Protection from Recontamination

Comment 58: The United States received several comments expressing concerns that the proposed response actions for non-aqueous phase liquid (NAPL) plumes, many of which are located beneath the Former Oxbow Area properties, are insufficient to prevent recontamination of the Housatonic River and suggested that a more aggressive program for monitoring and pumping out of NAPL from existing wells be implemented. The commenters also recommended EPA consider a range of remediation strategies including the construction of a slurry ditch and NAPL pumping system that would prevent recontamination of the River and allow for the deeper excavation of contaminated sediments.

Response 58: Beginning in June, 1998, EPA required GE to implement a more aggressive program to investigate, monitor, and remove NAPL. Furthermore, the Consent Decree has adequate provisions to mitigate the threat of recontamination posed by known NAPL plumes and has the flexibility to require GE to mitigate additional NAPL that may be identified in the future. A detailed response is provided below.

Known NAPL plumes. There are several known NAPL plumes located at the Site. A majority of these plumes are located on or near Former Oxbow Area properties.[48] These include plumes that are denser-than-water NAPL ("DNAPL") that tend to sink to the bottom of the aquifer stopping at the top of a subsurface confining layer, such as till, and plumes that are lighter-than-water NAPL ("LNAPL") that float on top of the groundwater. At the Lyman Street Area, which includes Oxbow D, there are both LNAPL and DNAPL plumes that contain PCBs.

---

[48] *See* Exhibit 5.1 for a Site map that includes the Former Oxbow Area locations.

At East Street Area 2 - South, which includes Oxbow H, there is an LNAPL plume that contains PCBs and a DNAPL plume located approximately 35-40 feet below the ground surface (25-30 feet below the sediment bed) that consists of manufactured gas plant constituents. An extension of, or a separate DNAPL plume that consists of manufactured gas plant constituents, was uncovered and addressed during the implementation of the Upper ½-Mile Reach Removal Action. At Newell Street Area II, which contains Oxbow I, there is a DNAPL plume approximately 30-35 feet below the ground surface (15-20 feet below the sediment bed elevation). There is also a DNAPL plume located adjacent to the River on GE property near Building 68. This plume contains PCBs and is located in the area referred to as East Street Area 2 - South. In May 2000, DNAPL was observed entering into the excavation during the implementation of the Upper ½-Mile Reach Removal Action at an area between the East Street Area 2 - South plume and Building 68.

Past/current response actions. Prior to June 1998, the agencies required GE to implement the following interim response actions:

Lyman Street Area. GE installed and continues to operate automated NAPL containment/recovery systems that consist of three groundwater/NAPL extraction/recovery wells. In addition, GE personnel manually monitor and remove NAPL from numerous additional wells.

Newell Street Area II. GE manually monitored and removed DNAPL from numerous wells.

East Street Area 2 - South. GE installed and continues to operate an automated LNAPL recovery system that consists of seven extraction/recovery wells. Additionally, GE periodically monitored and removed LNAPL from a large number of wells throughout the area. GE also installed a slurry wall to help block the flow of NAPL towards the river. At the time of lodging of the Consent Decree, over 800,000 gallons of LNAPL were recovered from these systems. GE also manually monitored and removed DNAPL from several wells located in the area.

Additional information on the NAPL plumes and GE's response actions is contained in Section 2.0, Description of Existing Programs, of Technical Attachment H to Appendix E.

Investigation and response actions from June 1998 through the present. Prior to initiating removal activities in the Upper ½-Mile Reach, EPA believed that it was necessary to further assess, characterize and delineate the NAPL plumes and if necessary, require GE to supplement their response actions. Since June of 1998, GE has submitted approximately 21 documents/plans proposing supplemental source control investigations and activities. Pursuant to these documents/plans, and following EPA approval, GE has performed the following:

- Further characterized and delineated the NAPL plumes in these areas;
- Installed an impermeable sheetpile wall at East Street Area 2 - South to further prevent LNAPL from discharging to the River;
- Installed an automated DNAPL collection system at East Street Area 2 - South to recover manufactured gas plant-related DNAPL;
- Committed, as part of the Consent Decree, to install an impermeable sheetpile at the Lyman Street Area to further prevent both the LNAPL and DNAPL from discharging to the Housatonic River;
- Expanded both the number of wells and frequency of manual removal of NAPL and has installed automated DNAPL collection systems at Newell Street Area II. As of May 31, 2000, the automated DNAPL collection systems at Newell Street Area II have recovered over 16,000 gallons of free-phase DNAPL; and
- Installed approximately 180 linear feet of impermeable, metal sheetpile between the DNAPL and the river at the Building 68 DNAPL location. The sheetpile was driven into the till layer to effectively isolate the DNAPL from the river. As part of post-removal site control, GE is required to periodically monitor and remove DNAPL from the existing monitoring wells in this area. *See* GE's *Completion of Work Report for the Building 68 Removal Action*, February 2000.

As recommended by the commenters, since June 1998 and continuing through the present, EPA has required GE to perform a more aggressive monitoring and NAPL removal

program.

The commenters also recommended the construction of a "slurry ditch" and pumping system to immobilize the NAPL and referenced that GE already constructed a "slurry ditch" 380 feet long by 30 feet deep. It appears that the commenters are referencing a clay-based slurry wall, the purpose of which is to form a physical barrier to prevent NAPL from flowing towards the Housatonic River. The two impermeable sheetpile walls referenced above serve the same purpose, the only difference being they are made of metal sheetpile instead of a clay slurry. The selection of sheetpile allowed for the placement of the physical barrier to be within five feet of the riverbank. By placing the sheetpile as close to the River as possible, more of the NAPL plume is prevented from threatening the River. Also, the bank soils located between the metal sheetpile wall and the river, which are likely saturated by NAPL, have been or are scheduled to be excavated and removed as part of the Upper ½-Mile Reach Removal Action.

EPA does not believe it is appropriate to construct a "slurry ditch" along the entire length of both sides of the River as recommended by the commenters; rather EPA believes it is appropriate to design area-specific response actions to address known and newly identified NAPL plumes. This allows the response actions to be tailored to the specific conditions (e.g., type of NAPL, lateral and vertical location of the NAPL, proximity to the River, within the River channel, etc.).

The installation of a slurry ditch would not likely have a significant impact on the maximum excavation depths of river sediments. There are many others factors that limit the depth of excavation that would not be mitigated by the commenters proposed actions. Furthermore, without a permanent slurry ditch, excavation depths of up to eight feet below

existing sediment grade have been achieved both during the Building 68 Removal Action and the Upper ½-Mile Reach Removal Action.

NAPL response actions conducted during the implementation of the Upper ½-Mile Reach Removal Action. In January 2000, during the excavation of river sediments in the Upper ½-Mile Reach adjacent to the East Street Area 2 - South DNAPL plume, DNAPL was observed migrating up through the sediments at the base of the excavation. In accordance with the Upper ½-Mile Reach Removal Action Work Plan, GE excavated an additional two feet of sediments. Subsequent to this action, DNAPL continued to migrate into the base of the excavation. GE, with EPA oversight, then performed an investigation to determine the extent of the DNAPL in the area. Concurrent to these activities, GE pumped out 1,100 gallons of DNAPL from the excavation area. In April, 2000, GE implemented the EPA-approved DNAPL response plan. This consisted of pumping out 175-200 gallons of DNAPL, over 3,000 gallons of heavily contaminated water and the excavation and off-site disposal of 250 to 300 cubic yards of DNAPL-impacted sediments from the excavation area. Up to eight feet of sediments were excavated below the original sediment grade in this area.

Despite these activities, free-phase DNAPL remained at the base of the excavation and GE, in accordance with the EPA-approved DNAPL response plan, installed a DNAPL collection system at the base of the excavation. This consisted of a recovery well placed within a layer of stone to facilitate migration of any remaining DNAPL into the well. Concrete sand and an impermeable liner were placed on top of the stone, and the same capping sequence specified in the Upper ½-Mile Reach Removal Action Work Plan was placed on top of the impermeable liner to return the sediments back to their original grade.

The installation of this stone lined collection system is similar to a collection "trench" recommended by the commenters, with the difference being that this trench is located beneath the sediments and not on the adjacent riverbank. This is appropriate because the DNAPL was already present beneath the sediments which is therefore the optimal location to install the recovery system. As of May 31, 2000, approximately 475 gallons of DNAPL have been removed from this recovery system and no sheens or free-phase DNAPL have been observed in the area. Also, as required by the approved DNAPL response plan, GE will be required to perform additional source control activities and long-term monitoring of surface water and/or sediments for the hazardous constituents present in the DNAPL.

In May 2000, DNAPL was observed entering into a second excavation area during the implementation of the Upper ½-Mile Reach Removal Action. The source of DNAPL appears to have been an outfall that historically carried discharges from the GE Plant Site. GE, under EPA oversight, is currently addressing this DNAPL in accordance with the Upper ½ Mile Reach Removal Action Work Plan.

Documentation of response actions. All correspondence, plans and documentation regarding source control activities received from GE or transmitted to GE as of August 27, 1999 (approximately 13 submittals from GE), are included as Annex 2 to Appendix E ~~of~~ the Consent Decree. All correspondence, plans and documentation regarding source control activities that were received from GE or transmitted to GE after August 27, 1999 (approximately 8 submittals), along with all correspondence related to the DNAPL uncovered during the implementation of the ½-Mile Removal Action, are available for review at the Public Repositories.

Future/Long-term requirements to mitigate the potential for NAPL to

recontaminate the river. EPA recognized that in addition to past and on-ongoing response actions to mitigate the threat of recontamination to the River posed by NAPL plumes, a long-term program was necessary. Therefore, Technical Attachment H to the Consent Decree specifies the long-term requirements that GE has to meet.

Section 2 describes the existing monitoring, assessment and response actions that GE is currently performing and requires GE to continue to perform these actions unless EPA concurs that they are no longer appropriate. Section 4.2 identifies the Performance Standards for NAPL. The applicable standards with regard to recontamination of surface waters are as follows:

1. Containment, defined as no discharge of NAPL to surface waters and/or sediments, which shall include no sheens on surface water and no bank seeps of NAPL.

2. For areas near surface water in which there is no physical barrier between the wells and the surface water, elimination of measurable NAPL . . . that could potentially discharge NAPL into surface water, in order to prevent such a discharge and assist in achieving groundwater quality performance standards.

3. For areas adjacent to physical containment barriers, prevention of any measurable LNAPL migration around the ends of physical containment barriers.

4. For NAPL areas not located adjacent to surface waters, reduction in the amount of measurable NAPL to levels which eliminate the potential for NAPL to migrate toward water discharge areas . . . and which assist in achieving groundwater quality Performance Standards.

Therefore, if any NAPL is found to be discharging to the river (or other surface waters) or if sheens or banks seeps are observed, GE is required to mitigate the situation. This applies to known NAPL plumes as well as unknown conditions or NAPL plumes that are not fully characterized.[49]

---

[49] *See also* Response 13 regarding the United States' authority to require additional GE work in the event of new information or previously unknown conditions.

Sections 4.2 and 6.3.2 also require GE to periodically reassess, optimize, and enhance the NAPL recovery systems to maximize the volume of NAPL recovered and eliminate mobile NAPL.

Summary. As recommended by the commenters, EPA has required GE to perform a more aggressive monitoring and NAPL removal program and has installed physical barriers in some areas to prevent NAPL from discharging to the River. EPA believes that existing response actions, proposed additional response actions, as well as the long-term requirements and Performance Standards contained in Attachment H to Appendix E, are sufficient to prevent significant recontamination of the river from occurring via NAPL discharges. Should additional NAPL be identified during the implementation of the Upper ½ -Mile Reach Removal Action, the Upper ½-Mile Reach Removal Action Work Plan requires GE to perform additional response actions, monitoring activities and potentially corrective actions. *See* Response 64 for additional details in the event NAPL is detected in the Upper ½ Mile Reach.

Comment 59: The United States received several comments expressing concerns that the proposed response actions for groundwater are insufficient to prevent recontamination of the Housatonic River and that GE be required to implement an increased monitoring and assessment program, as well as implement a systematic and comprehensive groundwater treatment program.

Response 59: EPA believes that potential recontamination via contaminants that are dissolved in groundwater will occur slowly, if at all, and therefore response actions to address this potential threat can be implemented concurrent to or after completion of the Upper ½-Mile Reach and 1 ½-Mile Reach Removal Actions. Technical Attachment H of Appendix E to the Consent Decree

requires GE to perform monitoring, assessment and response actions to mitigate the threat posed by contaminated groundwater. These requirements are outlined below.

Performance Standards. Section 4 of Technical Attachment H specifies the Performance Standards that GE must comply with to mitigate the potential of recontamination of the river from groundwater. The pertinent Performance Standards are referred to as GW-3 standards; which are standards based on categories designated in the Massachusetts Contingency Plan (310 CMR 40.0932) designed to be protective of surface waters. GE is required to meet these standards in monitoring wells located near surface waters that are at or near the Site (i.e., Silver Lake, Unkamet Brook and the Housatonic River). These point-of-compliance wells are referred to as "perimeter wells".

Baseline Monitoring. Sections 6.1 and 6.2 of Technical Attachment H require GE to conduct an extensive baseline monitoring program that includes the use of existing and new monitoring wells. At a minimum, GE will be required to monitor and assess the contamination in a total of approximately 127 wells; approximately 67 of which are designated as perimeter wells. GE is required to submit a baseline monitoring proposal and a baseline summary report which documents the results of the baseline monitoring. This section requires GE to systematically implement an increased monitoring and assessment program as recommended by the commenters.

Interim groundwater response actions. Section 6.3 of Technical Attachment H requires GE to potentially perform interim groundwater response actions if the baseline monitoring indicates an exceedance of GW-3 standards. Specifically, Section 6.3 requires the following:

"For sampling results that indicate an exceedance of Method 1 (or 2) GW-3 standards at downgradient perimeter monitoring wells in a well in which: (1) such an exceedance had not previously been found; or (2) the GW-3 Standard (Method 1 or 2) has previously been exceeded and the groundwater concentration is greater than or equal to 100 times the GW-3 Standard (if such exceedance was not previously addressed), GE shall propose interim response actions, which may include: . . . active response actions, including, but not limited to, containment, recovery, or treatment of impacted groundwater; . . . . Upon EPA approval, GE shall implement the approved interim response action." (Section 6.3.1 of Technical Attachment H)

Long-term groundwater response actions. Sections 7.1 and 7.2 of Technical Attachment H require GE to perform long-term monitoring of the groundwater throughout the Site. GE is also required to evaluate the data and submit summary reports to EPA. Section 7.3 of Technical Attachment H describes the application of Performance Standards and the circumstances pursuant to which GE would be required to perform long-term groundwater response actions. In general, GE may be required to implement additional response actions if groundwater monitoring shows that groundwater quality exceeds Performance Standards. Pursuant to Section 7.3 of Technical Attachment H, ". . . [s]uch response actions may include continued monitoring, other assessment activities, or active response actions to attain the Performance Standards. Upon EPA approval, GE shall implement the EPA-approved response actions. . . ."

Capping Requirements, Monitoring and Performance Standards required by the Upper ½-Mile Reach Removal Action Work Plan. In the Upper ½-Mile Reach, GE is required to install a sorptive cap in the river bottom; monitor the effectiveness of the cap to prevent recontamination by groundwater discharging from adjacent properties, passing up through the sorptive cap and into the surficial sediment; and if necessary, take corrective action. These requirements will provide additional safeguards to prevent the surficial river sediments in

the Upper ½-Mile Reach from becoming significantly contaminated by the groundwater discharge pathway. *See also* Responses 62-65.

Summary. The Consent Decree, as detailed in Technical Attachment H to Appendix E, does require GE to extensively sample, monitor and assess the groundwater quality throughout the Site as recommended by the commenters. It is inappropriate to require GE to implement an extensive Site-wide groundwater treatment program prior to conducting a thorough assessment of the groundwater quality. Instead, the Consent Decree requires GE to implement additional groundwater response actions in a phased approach, based on the location and magnitude of an exceedence of a groundwater Performance Standard. EPA believes these provisions, supplemented by the sorptive cap, monitoring and corrective action requirements in the Upper ½-Mile Reach, are sufficient to minimize the threat of recontamination of the river from occurring via the contaminated groundwater pathway.[50]

Comment 60: The U.S. received several comments expressing concerns that the proposed response actions to address the "extremely high" levels of contaminants in the Oxbows in both surficial and subsurficial levels pose a threat to "humans and the environment." Although recontamination of the Housatonic River was not specifically mentioned, this comment came after a reference to EPA's May 1998 Action Memorandum for the Upper 2 Mile Reach concerning potential recontamination of the Housatonic River via bank soil erosion and storm runoff. Other commenters expressed concerns that the Former Oxbows Area properties "extend to the banks of the River" and that the response actions for the Former Oxbow Area properties in

---

[50] *See also* Decree ¶¶ 162 and 163, United States' Reservation of Rights.

general were insufficient to prevent "recontamination".

Response 60: The following response addresses potential recontamination to the Housatonic River via the bank soil erosion and surface water runoff pathways. Potential recontamination of the Housatonic River via the contaminated groundwater and NAPL pathways were addressed above. *See also* responses in Section III.E, Protectiveness of Cleanup Standards.

Mitigation of recontamination posed by bank soil erosion. There are currently contaminated riverbanks in Former Oxbows Area properties located upstream of the Upper ½-Mile Reach, within the Upper ½-Mile Reach and in the 1 ½-Mile Reach. In addition, both the Upper ½-Mile Reach and the 1 ½-Mile Reach have contamination present in the non-oxbow portion of the river banks.

Former Oxbows J and K are located upstream of the Upper ½-Mile Reach. The Consent Decree requires GE to perform removal actions at these two former oxbows that will achieve average surficial bank soil concentrations of 10 ppm or less. *See* Decree ¶ 26, or Appendix E, Section 2.3.2.

The Upper ½-Mile Reach Removal Action Work Plan includes response actions that will minimize erosion of banks soils, including those banks that were part of Oxbows D through H. Decree, Appendix F. The response actions also include removal of surface soils ~~to~~ achieve an average concentration of 10 ppm PCBs or less. Achieving an overall average concentration of 10 ppm PCBs in surface soils will reduce the impact of any bank erosion on the river sediments. Furthermore, in areas where erosion is more likely to occur, additional precautions are required. For example, in drainage swales and at the outlet of out-fall pipes, geotextile fabric overlain by rip rap (graded stone) will be placed to prevent scouring of underlying bank soils. Also, at many

locations along the lower bank, additional rip rap has been or will be placed to minimize erosion from the river flows and velocities up to a 100-year storm event.

In addition, the Upper ½-Mile Reach Removal Action Work Plan requires GE to perform long-term inspection, maintenance and corrective action to ensure that bank soil erosion is minimized and/or corrected, if necessary. See Decree, Appendix F, Sections 11.5.2 and 11.6.1 for a description of these requirements and any limitations on the requirements. In general, GE is required to inspect the riverbanks at least annually for the first five years and repair any significant erosion. After five years, GE is required to submit an appropriate long-term monitoring plan to EPA for approval. In addition to these requirements, the Upper ½-Mile Reach Removal Action Work Plan contains a Performance Standard that requires GE not only to implement the monitoring and maintenance requirements, but also, under certain circumstances and subject to certain limitations, to perform corrective action activities within the river itself. Specifically, Performance Standard Number 12 in the Upper ½-Mile Reach Removal Action Work Plan states, "GE shall evaluate the source, dispersal, and quantity of the eroded soil in the River, and shall propose to USEPA appropriate measures to remove any significant quantity of contaminated eroded soils to the extent practical, and shall implement such measures upon approval from USEPA." Decree, Appendix F at 2-4.

Former Oxbows A, B and C, are all located in the 1 ½-Mile Reach. EPA will perform the removal action for the 1 ½-Mile Reach and has already completed a draft Engineering Evaluation/Cost Analysis (EE/CA) that evaluates several potential removal actions. All potential removal actions contain measures to mitigate the threat of recontamination from eroding bank soils, such as reducing the PCB concentrations in bank soils to less than 10 ppm and placing rip

rap at the toe-of-the slope. Tagliaferro Declaration at ¶ 3.

Mitigation of recontamination via surface water runoff. Recontamination of the river can potentially occur from surface water runoff from the non-bank portion of properties abutting the river, some of which are Former Oxbow Area properties. The location of the former oxbow properties are identified above. Surface water could potentially transport material from contaminated surficial soils located on these properties and deposit the contaminated material into the Housatonic River during storm events.

Major sources of surface water run-off in the Upper ½-Mile Reach are addressed in the Upper ½-Mile Reach Removal Action Work Plan. Decree, Appendix F. Mitigation procedures include the installation of settling basins, check dams, and other engineering controls to reduce the amount of suspended solids transported with the surface water runoff and into the Housatonic River.

Additional actions to mitigate this pathway will be achieved when GE implements the removal actions at Removal Action Areas (RAAs) for portions of the Site abutting the River. This includes RAAs for Newell Street Area I, Newell Street Area II, East Street Area II - South, the Lyman Street Area, Former Oxbows A and C, Former Oxbows J and K, and Housatonic River Floodplain Properties in the 1 ½-Mile Reach. Decree, Appendix E.

For these RAAs, the Consent Decree requires GE to perform removal actions that will achieve an average surficial soil concentration of 2 ppm or less for properties classified as residential properties, 10 ppm or less for properties classified as recreational properties, and 25 ppm or less for properties classified as commercial properties. Decree Section IX. In addition, significant portions of Newell Street Area II and the Lyman Street Area will be capped, so all

surficial soils in these areas will be free of contamination. Reducing or eliminating the level of contamination in surface soils in these RAAs will reduce or eliminate the amount of contaminated material that can be transported into the Housatonic River via storm water runoff.

Summary. EPA believes implementing the actions identified above in Former Oxbow Area properties, as well as in non-oxbow properties that abut the river, will reduce the threat of recontamination of the Housatonic River posed by both the bank soil erosion and surface water runoff pathway.

G. Silver Lake

Comment 61: Commenters were concerned that the current cleanup plan for Silver Lake would render Silver Lake useless and a continuing threat to the Housatonic River. Specific comments include:

(A) questioning the effectiveness of the proposed cap, including questioning whether the cap can be adequately placed;

(B) asserting that EPA had decided not to remove "highly contaminated sediments";

(C) questioning the protectiveness of the 10 ppm recreational cleanup levels for PCBs, especially for children playing along the banks of Silver Lake;

(D) calculating the cost of removal and treatment of contaminated sediments and concluding that the costs were "not a large amount of money to restore and rehabilitate a 26 acre gem" and requesting a "pilot project" to see if removal of sediments is possible; and

(E) commenting that "while considering all options to completion of [cleanup of] PCBs," he finds it necessary to consider further investigation in the 'bed' of Silver Lake contamination.

Response 61: The Consent Decree provides assurance that the cleanup selected for Silver Lake will be effective and will prevent the lake from being a continuing threat to the Houstonic River.

In response to the specific comments:

Response 61(A): The removal action includes the installation of a cap (minimum thickness of 10 inches) over the entire lake bottom and a stone erosion control layer ("armor") around the entire perimeter of the lake. This cap and armor system will be designed to achieve the following goals: establishment and maintenance of a physical barrier consisting of clean material over the sediments, prevention of migration of PCBs from the sediments through the cap to the water column of the lake, and the prevention of erosion or physical displacement of the sediments or capping materials along the shoreline of the lake. The final cap design, which will be proposed by GE and presented to the public for comment, and EPA for approval, will be designed to meet the above goals. In order to satisfy the Performance Standards in the Decree, GE is required to place the cap to the applicable design thickness. In addition, GE will be required to inspect, monitor and sample the cap and armor system to monitor the effectiveness of the cleanup. If the inspections, monitoring or sampling indicate that design standards have not been met or if the isolation layer of the cap is not performing in general accordance with predictions on which the design of the cap was based, GE will be required to propose and implement corrective actions. More details on the Performance Standards for Silver Lake can be found in the *Statement of Work for Removal Actions Outside the River*, Appendix E to the Consent Decree.

Response 61(B): The cleanup for Silver Lake does, in fact, include the removal of an area of sediments in the northeastern corner of the lake near the GE Plant Area outfall. This area includes the contaminated sediment that one of the commenters assert would remain in place.

Response 61(C): The justification for the recreational PCB cleanup level can be found in an August 4, 1999, Protectiveness Memo, in Appendix D to the Consent Decree. The risk calculations for the 10 ppm PCB cleanup level assume that a sensitive receptor (1-6 year old child) could be playing in this area for an average of 3 days per week from May through November of each year. These assumptions are appropriately conservative and protective for the Silver Lake exposure scenario.

Response 61(D): The commenter's cost calculation for removal and treatment is not accurate. Utilizing the same assumptions that the commenter used to calculate the cost of removal and treatment of contaminated sediments from Silver Lake, the cost of removal and treatment would be $ 237,000,000, not $23,700,000 as the commenter suggested. It appears that the commenter made a math error. EPA continues to believe that the proposed alternative, which includes a combination of removal, capping and armoring, is protective and more cost effective than the alternative or pilot project suggested by the commenter.

Response 61(E): With respect to the request for further investigation, extensive sampling

of the Silver Lake sediments was performed prior to EPA's selection of a Removal Action for the lake. Over 200 sediment samples were collected and analyzed for PCBs, with 12 samples also analyzed for non-PCB contituents. *See* Decree Appendix E, at Attachment K. EPA considered the results of this sampling, and other sampling related to Silver Lake, prior to selecting the Removal Action for Silver Lake. EPA believes that this amount of sampling was sufficient for selecting the Silver Lake Removal Action.

H. Upper ½ Mile Reach

1. Background

In May 1998, EPA determined that a Superfund Removal Action was necessary to address contaminated sediments, riverbanks and floodplain soils in the two-mile Upper Reach of the Housatonic River which begins at Newell Street and extends to the confluence of the East and West Branches of the Housatonic River ("Upper Reach Action Memorandum"). *See* Decree Appendix B. In this determination, EPA concluded that cleanup of the first ½-mile of this two-mile reach (i.e., from Newell Street to Lyman Street) required immediate cleanup and that further studies and engineering evaluations were required prior to initiating the cleanup in the next 1 ½ miles.

Pursuant to the Consent Decree, GE has already begun to perform the cleanup of the ½-mile Reach from Newell Street to Lyman Street (referred to as the "Upper ½ Mile Reach") and EPA and GE will jointly fund, and EPA will implement the cleanup of the next 1 ½ Mile Reach. Decree, ¶¶ 16, 20, 21.

From August through October of 1998, EPA conducted extensive sampling of the sediments and riverbanks to further characterize the contamination in the Upper ½ Mile Reach. In January 1999, GE submitted a Draft Removal Action Work Plan for the Upper ½-Mile Reach of the Housatonic River (referred to below as the "Draft Work Plan"). In February 1999, two

public meetings were held in Pittsfield to solicit public input on this Draft Work Plan.

EPA and MADEP considered the public input during their review of the Draft Work Plan. EPA and MADEP met with GE periodically from February through July to discuss the Agencies' concerns with the Draft Work Plan. The Final Removal Action Work Plan for the Upper ½ Mile Reach (referred to below as the "Final Work Plan") contains significant modifications from the Draft Work Plan and has been approved by EPA. This Final Work Plan is Appendix F to the Consent Decree.

2. Response to Comments

Comment 62 : One commenter was concerned that the Upper ½ Mile response action would leave behind unnecessarily high levels of PCB contamination in the sediments and bank soils. Some commenters were also concerned that EPA has limited GE's required excavation depths to 2 or 2.5 feet. One commenter also suggested that dredging should be a component of the Upper Reach response actions.

Response 62: As was stated in the Upper Reach Action Memorandum, one of the primary objectives of the removal action is to excavate contaminated sediments and effectively isolate the residual contamination from human and ecological receptors. Decree, Appendix B at 19.

In the Upper ½ Mile Reach, human and ecological exposure is primarily limited to the top foot of sediments. Therefore, EPA approved a work plan that combined the excavation of up to 2 ½ feet of sediments and backfilling of the river channel with a cap. Excavation depths were based on a detailed review of concentrations of PCBs present in the Upper ½-Mile Reach. The PCB concentration data used for this review included historical data collected by GE and new data collected by EPA. The EPA data collection effort was comprehensive. The sampling

program included collecting samples on 50-foot intervals in the sediments. At each 50-foot interval or "transect", EPA collected approximately 12 sediment samples. Including historical data, a total of over 650 sediment samples were reviewed. An evaluation of this data resulted in the proposed excavation of a minimum of 8,100 cubic yards of sediments. In addition, the response actions required by the Decree do not limit excavation depths to 2-2.5 feet as suggested by the commenters. Decree, Appendix F at Section 7.4.4. In areas where DNAPL is present in the sediments, GE is required to remove the DNAPL or excavate the sediments to a minimum depth of 4 feet below existing grade. Id. In one instance already in implementation of the Upper ½ Mile Reach Removal Action, GE has excavated up to 8 feet of contaminated sediments to address DNAPL. Tagliaferro Declaration at ¶ 3.

The backfill/cap contains two primary components: the isolation layer, and the rip rap (rock) layer, and was designed to minimize the potential for recontamination of surface sediments. The isolation layer component is designed to prevent underlying contamination from recontaminating the surficial sediments via advection and diffusion and the rip rap layer was designed to prevent the isolation layer from eroding and exposing underlying contamination. The Upper ½-Mile Reach Work Plan contains Performance Standards that require GE to perform corrective action if either the isolation layer or rip rap fails to perform its intended purpose. Decree, Appendix F at Section 2-2. This combined approach of excavation and capping is expected to reduce the surficial sediment contamination from an average of approximately 55 ppm to less than one ppm absent any recontamination. Tagliaferro Declaration at ¶ 3. EPA has determined that this approach is appropriate for the Upper ½ Mile Reach.

For river bank soils, exposure to human and ecological receptors is expected to be limited

to the top three feet of bank soils. EPA has determined that the appropriate exposure scenario for riverbank soils in the Upper ½-Mile Reach is recreational. As is documented in the Protectiveness Memo, (Decree, Appendix D), and the July 26, 1999, *Protectiveness of Cleanup Levels for Removal Actions Outside the River - Protection of Ecological Receptors,* (Decree, Appendix D), EPA has determined that the cleanup levels of 10 ppm in the top foot of soils and 15 ppm in the one to three foot depth is protective of human health and the environment in recreational areas.

With respect to the commenter's recommendation of dredging in the Upper Reach, EPA's chosen response action for the Upper ½ Mile Reach and EPA's recommended alternative for the 1 ½ Mile Reach, which essentially consist of mechanical excavation, attain the objectives of sediment removal similar to the response actions referenced, and referred to as, dredging by the commenter. Due to the specific characteristics of these Reaches, EPA has determined for the Upper ½ Mile Reach, and proposed for the 1 ½ Mile Reach, that mechanical excavation is the appropriate approach.

Comment 63 : Commenters questioned the effectiveness and efficacy of the geotextile component of the Upper ½ Mile Reach response action for sediments.

Response 63: EPA believes that the use of geotextiles in this response action is appropriate and necessary. Geotextiles are being used in the Upper ½ Mile Reach in the same applications for which these types of geotextiles are designed to be used.

The multi-layer cap being installed in the Upper ½ Mile Reach utilizes geotextiles in two sections of the cap. The first section consists of a permeable geotextile fabric. The purpose of this geotextile fabric is to serve as a barrier between the underlying sediments and the cap

material, thus limiting the potential for mixing of the underlying sediments with the cap material, and to provide a secondary long-term erosion protection layer. Following the placement of the first geotextile liner, an isolation layer consisting of silty sands will be installed. This material contains fines and other small particles. Decree, Appendix F at Section 7.4.2.

The next section of the cap is installed on top of the isolation layer and utilizes two geotextiles: a second permeable geotextile fabric and a tear resistant geogrid. A layer of stone (armor) up to 12 inches in size will then be placed on top the geotextile/geogrid to prevent erosion. Due to the difference in particle size between the silty sand and the stone, EPA believes that a filter material is necessary to prevent the fines from the silty sand layer from flowing with the groundwater up through the stone layer and potentially causing failure of the backfill configuration. The geotextile fabric will serve this purpose as well as perform the function of a witness barrier to assist in monitoring for erosion of the stone/armor backfill. The purpose of the geogrid is to provide a layer of a tear-resistant material to protect the geotextile during the placement of the stone (armor) layer. Id.

Furthermore, the Consent Decree requires that GE sample the isolation layer of the cap in order to ensure that the cap is working as planned. Decree, Appendix F at Section 11.5.1. Because the isolation layer is "sandwiched" by the geotextile layers, the geotextiles also help to mark the location of the isolation layer thus improving the accuracy of the future sampling and the ability of EPA to evaluate GE's compliance with the performance standards.

Comment 64: Commenters questioned whether EPA's 1996 disapproval of GE's capping proposal for the Building 68 Area of the Housatonic River was inconsistent with EPA's decision to allow capping for the remaining portions of the Upper ½ Mile Reach. In particular, the

commenter noted three of EPA's 1996 concerns about capping the Building 68 Area. They are the following: potential failure of the armoring, covering extremely elevated levels of PCBs does not eliminate a potential source, and armoring the grossly-contaminated sediments would be a impediment to a subsequent removal.

Response 64: EPA believes that the response actions developed for the Upper ½ Mile Reach are protective and are responsive to EPA's original concerns about GE's 1996 proposed response actions for the Building 68 Area. With respect to potential failure of the armor layer, EPA's 1996 concerns were in response to a GE proposal to install an 8 inch armor layer. The Upper ½ Mile Reach armor layer is 12 inches thick and includes the placement of stone that is up to 9 to 12 inches in diameter. Decree, Appendix F at Section 7.4.2, and Figures 7-1(A)-(C) and 7-2. Based on engineering calculations, EPA has determined that the 9 to 12 inch minimum armor layer provides the appropriate level of protection for the Upper ½ Mile Reach. In addition, the Performance Standards for the Upper ½ Mile Reach also call for GE to conduct periodic inspections of the armor layer to ensure that it is effectively preventing erosion. Decree, Appendix F at Section 2.2. If inspections indicate that the armor layer is failing, GE is required to propose and implement corrective actions. Decree, Appendix F at Section 2.2.

With respect to EPA's 1996 concerns with covering extremely high levels of PCBs, the Building 68 Area, as noted by the commenter, contained levels of PCBs in the hundreds of thousands of parts per million (the average surficial sediment concentration in the Building 68 Area was approximately 1,570 ppm PCBs.), Olson Declaration at ¶ 4, while in the Upper ½ Mile Reach, the average surficial sediment concentration was approximately 55 ppm PCBs. Decree, Appendix F at Table 3-1. Therefore, the contamination in the Building 68 Area was

approximately 29 times greater than in the Upper ½ Mile Reach and a different approach was warranted. With regard to covering up extremely high levels of PCBs, the levels that were present at the Building 68 Area are indicative of the presence of free product or oils (i.e. non-aqueous phase liquids, or NAPLs). Olson Declaration at ¶ 4. In fact, while excavating the Building 68 Area, PCB NAPLs were discovered and removed. For the Upper ½ Mile Reach, GE is required to first remove sediments to depths required by the Final Work Plan (considering the extensive PCB sampling that was conducted) and then required to conduct additional response actions if NAPL is discovered during the excavation.[51] Decree, Appendix F at Sections 7.2 and 7.4.4. These response actions include the removal of NAPL-impacted sediments to depths of at least 4 feet and the collection of the NAPL that is amenable to collection. If any NAPL is still present following the above actions, GE may be required to periodically sample the capping material to monitor its effectiveness at locations where NAPL may be left in place below 4 feet. This monitoring is in addition to the other regular monitoring of the cap required by the Consent Decree. If the cap is not performing in general accordance with predictions, GE is required to propose and implement corrective actions. Based on the above, EPA believes that response action is protective and responsive to EPA's 1996 concerns.

Finally, EPA believes that the Upper ½ Mile Reach Removal Action will ~~be~~ a final action unless new information or conditions are discovered. Therefore, the armoring will not impede future response actions since such actions are not anticipated.

---

[51] As noted above in Response 62, the discovery of NAPL during the excavation of the Upper ½ Mile Reach has already resulted in removal to a depth of up to eight feet of contaminated sediments in one location.

Comment 65: One commenter suggested that a pilot project is needed to prove that the predictions of the computer models are accurate. In addition, the commentor questioned whether EPA has sufficient experience with capping in this type of river situation.

Response 65: EPA has determined that the conditions in the Upper ½ Mile Reach, if not addressed, may present an imminent and substantial endangerment to public health, welfare or to the environment, and that a time-critical removal action is warranted. Decree, Appendix B at 16, 22-23. In accordance with the National Contingency Plan, response actions for time critical removal actions should, as appropriate, begin as soon as possible. 40 C.F.R. § 300.415(b)(3). Also, the 1 ½ Mile Reach Removal Action and the Rest of River response action cannot be implemented until Upper ½ Mile Reach Removal Action is complete. A pilot project would require at least one year, and more likely 5 -20 years, to evaluate its success. Tagliaferro Declaration at ¶ 3. Given the time critical nature of this action, the pilot project is not a viable option. Modeling was performed as a tool to evaluate the effectiveness of the cap in terms of the cap's ability to limit PCB movement through the cap. This type of modeling is commonly conducted in all types of engineering applications and can be validated through future monitoring efforts.

The Decree requires that GE periodically conduct this future monitoring ~~to~~ evaluate the effectiveness of the cap following completion of the Upper ½ Mile Reach Removal Action. If the cap is not generally performing as predicted, GE is required to propose and implement corrective actions. *See* Decree, Appendix F, Section 2.2. EPA believes this post-removal monitoring provides a secondary level of protection and, in this situation, is a better option than a Pilot Project.

Although EPA knows of no other river capping project identical to this one, EPA believes, based on its experience with the Building 68 Removal Action and other river projects, that installation of a sorptive cap as a component of the Removal Action for the Upper ½ Mile Reach is appropriate.

I. Other Comments on Remediation

Comment 66: Commenters provided information on possible areas of contamination. These comments were as follows: urging further investigation of barrels of toxic waste buried in some critical areas (e.g., city loaded lake each winter with salt and cyanide); providing an interview mentioning general locations of liquid waste disposal by GE, both on-Site and off-Site; expressing concern about contaminated fill from Pittsfield being transported into Connecticut; urging extensive sampling and remediation of the West Branch of the Housatonic River; urging investigation and cleanup of buildings with PCB-contaminated earth floors; urging investigation and cleanup related to a GE contaminated wood giveaway program; and expressing concern about any fill properties along Unkamet Brook outside the Site.

Response 66: For areas of contamination or disposal within the Site that may not yet have been identified, the Decree provides multiple protections. For off-Site areas, the United States has reserved its rights to take action, and EPA will follow up on information provided.

Regarding other areas within the Site where liquid waste or barrels may have been disposed, EPA has an extensive sampling and monitoring program in the Decree, and EPA is requiring GE to take action under the Decree to remove NAPL, and prevent contamination or recontamination of the River. To date, almost 1 million gallons of oil have been removed from the ground pursuant to EPA requirements. *See also* Section III.F, Responses 58-60 above

regarding steps taken to protect against recontamination. Moreover, in the Decree, the United States has reserved its rights to order GE to perform or pay for additional work if new information or previously unknown conditions indicate that the cleanups are not protective of human health or the environment. *See* Response 13.

With respect to possible contamination or disposal off-Site, including but not limited to, the West Branch of the River, the off-Site properties along Unkamet Brook, any fill property shipments into Connecticut, and any other off-Site disposal of barrels, liquid waste, or other PCB contamination, such properties are not governed by the Consent Decree, and the United States reserves all its rights to address such a situation. Moreover, EPA has in the past referred possible disposal locations to MADEP, or other EPA regional offices, as appropriate, for evaluation, and will continue to evaluate and refer, as appropriate, disposal information.

Additionally, in response to specific requests of commenters, EPA has already stated to the public that EPA will work with MADEP to ensure that the extent of PCB contamination in the West Branch is defined, that EPA will work with MADEP to ensure that the wood giveaway program is investigated and that unacceptable risks to human health and the environment, if any, are remediated, and that EPA will ensure that properties within the Oxbow Areas with earthen floors are investigated, sampled, and that unacceptable risks to human health or the environment, ir any, are remediated. Exhibit 7 to the Memorandum of Law.

Finally, if any of the commenters have specific information about areas which they believe require further investigation, they are encouraged to contact EPA, and EPA will follow up on information received.

Comment 67: A commenter asserts that the transport of contaminated waste to other

communities is environmental racism.

Response 67: Under the proposed Consent Decree, EPA has selected Removal Actions for twenty-five Removal Actions Outside the River, as well as the Upper ½ Mile Reach. The majority of the contaminated sediments and soils removed during such cleanups are being consolidated on-Site. *See* Section III.B, Responses 40-49. Other wastes, which EPA determined should not be consolidated on-Site, are to be disposed of appropriately off-Site. *See* Decree ¶ 15.a.[52] Pursuant to Paragraph 8.a of the Decree, all activities undertaken by GE under the Decree, including activities relating to consolidation of wastes on-Site and disposal of wastes off-Site, must be performed in accordance with the requirements of all applicable federal and state laws and regulations. EPA has determined that disposal in this manner will be protective of human health and the environment.

Comment 68: A commenter expressed concern that PCBs may become airborne during the process of removal, potentially causing a health hazard. The commenter requested information regarding the results of air monitoring during recent cleanup actions.

Response 68: The commenter does not object to the settlement or the cleanup. In addition, air emissions are being monitored, and to date show no cause for concern.

Air monitoring has been performed as part of three recent removal actions: the Building 68 Removal Action, the Allendale School Removal Action, and the Upper ½ Mile Reach Removal Action. For the Building 68 Removal Action, air monitoring was performed for four

---

[52]Under the Decree, specific wastes required to be disposed of appropriately off-Site include asbestos-containing materials required by applicable law to be removed from buildings or structures prior to demolition, free liquids, 'free product', intact drums and capacitors, or other equipment that contains liquid PCBs within its internal components. Decree ¶ 15.a(i).

months; at no time were applicable action levels exceeded.[53] For the Allendale School Removal Action, air monitoring was performed during the excavation; at no time were applicable action levels exceeded.[54] The Upper ½ Mile Reach Removal Action is ongoing; to date, applicable action levels have not been exceeded.[55]

Comment 69: A commenter provided an interview of a former GE supervisor, who estimates the amount of PCBs that were released into the River from the GE facility.

Response 69: The comment does not specifically object to the settlement. Nonetheless, EPA appreciates the information provided by the interviewee. EPA has been evaluating, and will continue to evaluate where PCBs from the GE facility have been deposited, through sampling of the Upper ½ Mile Reach, the 1 ½ Mile Reach, and the Rest of River. For the Upper ½ Mile Reach, the sampling has been used to determine the appropriate response action for that Reach. *See* Section III.H, Responses 62-65 above. Moreover, for the 1 ½ Mile Reach, the sampling has been used to produce the recommended alternative. Finally, for the Rest of River, this sampling will help to better define the nature and extent of contamination for making decisions on remediation. *See* Section III.A., Responses 26-39 above regarding Rest of River.

Comment 70: One commenter was concerned that excavating the very steep banks in her back yard may cause erosion. She suggested that EPA accompany the bank excavation with rip rap or some other barrier to prevent erosion.

---

[53]Building 68 Final Completion Report, February 2000, at 7-5.

[54]Allendale School Final Completion Report, February 2000, Appendix F at 3-10.

[55]Upper ½ Mile Reach Removal Action, Monthly Progress Reports, November 1999- May 2000.

Response 70: The commenter's property is located in the 1 ½ Mile Reach of the River. EPA's recommended alternative for the 1 ½ Mile Reach includes a provision to deal with bank erosion. EPA's recommended action is to either cut back the slope to a sufficient angle to allow for bioengineering, or, if cutting back the slope is not possible or practical, place hard structures such as walls or rip rap on the banks.

Comment 71: A commenter provides a 1992 interview that raised the following issues: a desire to make GE own up to the seriousness of the contamination problem; a concern that at that time people were not further along solving the contamination problems; and a disagreement with solutions he says GE was then proposing (i.e. to leave the River as is, and the problems will go away).

Response 71: As an initial matter, the interview was from 1992; hence it could not be commenting on the proposed Consent Decree. In addition, the Consent Decree does make GE own up to the seriousness of the problem, as demonstrated by the comprehensiveness of the work to be performed pursuant to the Decree. Moreover, the Decree addresses the interviewee's 1992 concern that solutions were not further along, by taking a large step toward expeditious and comprehensive remediation. Furthermore, clearly the Decree does not endorse leaving the River as is; the Decree calls for hundreds of millions of dollars of expenditures by GE to clean the River and other contaminated areas, and to prevent recontamination of the River.

Comment 72: A commenter provided a 1992 interview, and another undated interview, expressing concern with the past level of turnover of EPA project personnel.

Response 72: As noted in the above response, the interviews clearly are not commenting on the proposed Decree. Moreover, EPA, since 1993, has had the same individual in charge of

managing the GE-Pittsfield/Housatonic River project. While such continuity is not a prerequisite to effective project management, it demonstrates that the concerns expressed many years ago in the interview are not current concerns with the proposed Consent Decree.

Comment 73: A commenter expressed concern regarding the impact of upstream work on downstream riverfront locations.

Response 73: EPA is actively considering downstream effects in its River cleanup decisionmaking. In the Upper ½ Mile Reach, excavation is being performed after the River has been diverted with sheetpiling, so that the excavation can be done in dry conditions. This will minimize downstream resuspension of contaminated sediments. For the 1 ½ Mile Reach, EPA's recommended alternative provides similar safeguards to the work being conducted in the Upper ½ Mile Reach. For the Rest of River, the potential for resuspension will be considered in decisionmaking.

Comment 74: A commenter expressed concern that the length of the timeframe for cleanup of his particular Oxbow property would have a detrimental effect on his property.

Response 74: The schedule in Appendix E to the Decree considers relative risks posed by individual areas of the Site as well as the necessity of remediating the River from upstream to downstream. Based on existing information, EPA believes that the schedule is appropriate.

Comment 75: A commenter alleged that EPA plans to use taxpayer dollars to subsidize GE's efforts. Specifically, the commenter claimed that the taxpayers were subsidizing GE's efforts on the Newell Street Parking Lot.

Response 75: GE is conducting and paying for all of the cleanup work for the Newell Street Parking Lot. Decree ¶ 26. With one exception, GE is conducting and paying for all the cleanup

work under the Decree. The exception is the 1 ½ Mile Reach Removal Action, where EPA is conducting the response action and GE is paying for a substantial percentage of the work under a cost sharing agreement. *See* Decree ¶ 103-111. Given the total amount of cleanup work conducted and funded by GE under the Decree, the cost sharing agreement for the 1 ½ Mile Reach is appropriate. *See* Memorandum of Law, Argument A.4-5.

IV Comments on Natural Resource Issues

A. Inadequacy of NRD Recovery

Comment 76: Several commenters assert that the governments accepted too little compensation for natural resource damages, particularly in light of an estimate prepared by the governments' consultant, Industrial Economics Incorporated ("IEc"), of the natural resource damages claim.

Response 76: In deciding to resolve their claims for natural resource damages ("NRD") with respect to the GE-Pittsfield/Housatonic River Site ("Site") without the necessity of trial, the governments[56] considered the specific and unique circumstances of this case, including unique litigation risks, the likely length and cost of a trial against GE, the analyses set forth in the Preliminary Natural Resource Damage Assessment Report prepared by IEc ("IEc Report") (provided to the trustees on January 28, 1997), supplemental NRD work prepared by IEc, coordination of NRD concerns with response actions at the Site, and the overall value of the settlement. The following discusses these issues and explains why the IEc Report was an appropriate government tool for settlement negotiations, but not a valid measure for the adequacy of the NRD component of the settlement.

---

[56] Hereinafter "governments," "trustees" or "natural resource trustees."

The Terms of the NRD Settlement

Under the terms of the proposed Consent Decree, the settlement of claims for NRD consists of the following: (1) GE's performance of the response actions required under the proposed Consent Decree and considered as "primary restoration;" (2) a single cash payment of $15.735 million from GE;[57] (3) GE's performance of natural resource restoration, protection, or enhancement projects by GE with an estimated restoration value of approximately $6 million;[58] (4) performance of dam integrity assements of Woods Pond Dam and Rising Pond Dam; and (5) $4 million in cash and/or in kind services from PEDA.[59] These elements of the NRD settlement

---

[57] The $15.735 million from GE will be allocated as follows: (1) $15 million to be deposited into an interest bearing account held by the U.S. Department of the Interior, on behalf of all of the federal and state natural resource trustees, for the implementation of projects to restore, replace, or acquire the equivalent of injured natural resources; (2) $600,000 as mitigation for wetlands impacts; (3) $60,000 as mitigation for additional habitat impacts associated with PCB contamination and removal actions at the Site; and (4) $75,000 for aquatic habitat and fish restoration in Silver Lake.

[58] The projects to be performed by GE include riparian and habitat improvements in key segments of the River. GE will maintain the projects, including replacement of failing species, perform 7 years of adaptive management and monitoring, and eliminate nuisance vegetation in the areas restored for at least 5 years. In addition, the areas where the projects will be carried out will be subject to conservation easements in perpetuity and/or strict land use restrictions, thereby preventing development or any other activity which would impair the habitat and riparian uses and natural resource services that will be restored to these areas. The estimated restoration value of $6 million for the projects refers to the estimated long term value of the restoration (for settlement purposes) and not to the cost to GE to perform the projects. In some respects, the long term value of the projects may in fact exceed $6 million given that if the projects are not performed the project areas will remain largely in their current non-functional state and will never recover or be restored to provide even the most fundamental natural resource services such as storm water runoff control, in- stream fish habitat, and riparian wildlife habitat.

[59] The $4 million from PEDA will be satisfied through cash payments or in kind services, such as provision of space within existing buildings for a nature or interpretive center. PEDA will not be obligated to pay on the $4 million obligation until cash flows from redevelopment efforts are sufficient to cover this obligation.

are in addition to cost recovery of expenses for assessment of natural resource damages and future overnight costs.[60]

The IEc Preliminary Estimate of Damages

Because the NRD settlement consists of multiple and distinct components it is erroneous to make a direct comparison, as many commenters have done, between the money to be paid as part of the NRD settlement and the figures presented in the IEc Report (a range of $36 -- 200+ million). First, the damage estimates presented in the IEc Report, and later updated based on supplemental research in Massachusetts and Connecticut, were intended to inform the trustees as to the potential magnitude (i.e., potential upper limit) of dollar damages that might be demonstrated through primary research -- the estimates were never intended to generate results for presentation during trial. Consistent with the U.S. Department of the Interior regulations for NRD assessments under CERCLA, the preliminary estimate of damages was based on existing data and a limited amount of new data (*see* 43 C.F.R. §11.38). The preliminary estimate of damages generates a ballpark estimate of damages, sufficient for both settlement and planning further research, but not for trial. In short, having an estimate of damages is one thing; proving it in a court requires a much greater base of information. In judging the reasonableness of the settlement offer, the trustees carefully weighed the benefits of an expeditious settlement and the challenges of proving their NRD claims, including the inherent uncertainties and risks associated with proving the estimates in the IEc Report.

Second, the NRD estimates in the IEc Report (i.e., compensable dollar values resulting

---

[60] The Trustees will recover approximately $1.2 million in past expenses related to natural resource damage assessment and GE will pay a portion of the Trustees future oversight costs.

from lost natural resource service flows), prepared during 1996 and early 1997, were based strictly on rudimentary scenarios that assumed no response action, or response actions that hypothetically achieved uniform contaminant levels over varying periods of time. These analyses did not take into consideration (and could not have considered) response actions that have since been completed, response actions that have been selected and planned for implementation in the future, or combinations of response and restoration actions that may be implemented in the future -- all of which would serve to discount the estimated range of NRD. For example, GE has already undertaken response action in a portion of the River that IEc assumed would not be addressed for years.

Third, a key element of the NRD settlement for the Site is the response action (or response actions) for the River to be carried out under the proposed Consent Decree. In the context of NRD, the response action is considered to be "primary restoration" or actions that eliminate or reduce residual natural resource injury and which accomplish restoration when possible and/or provide the foundation for restoration, replacement or, more importantly, natural recovery. In order to ensure that the natural resource trustees' concerns and recommendations are considered as part of the response actions to be developed and performed, the management structure established through the proposed Consent Decree for review and implementation of response actions will include trustee participation when natural resources are affected (*see* Paragraph 13, page 56, of the proposed Consent Decree). This approach is entirely consistent with the coordination provisions of CERCLA and the NCP that provide natural resource trustees with the opportunity to discuss NRD concerns and restoration goals during the process of

planning and implementation of response actions,[61] and with Congress' intent in enacting CERCLA.[62] The IEc Report did not evaluate the value of this critical element of the NRD settlement. In short, the IEc preliminary estimate of damages was not designed or intended to evaluate or value the possible broad range of alternative scenarios, or combination of scenarios, that could constitute reasonable and acceptable compensation for NRD.

Finally, as explained below, the IEc Report was not designed or intended to account for other relevant factors such as the time, cost and litigation risks associated with establishing a NRD claim in court.[63]

---

[61] *See* Section 104(b)(2) of CERCLA, 42 U.S.C. § 104(b)(2) (requiring coordination between natural resource trustees and response agencies during development of response actions); 40 C.F.R. §§ 300.135(j), 300.160(a)(3), 300.430(b)(7), 300.615(c)(1)(ii), and 300.615(e)(2)) (NCP provisions implementing Section 104(b)(2)).

[62] *See* H.R. Rep. No. 99-253(IV), at 47, *reprinted* in 1986 U.S. Code Cong. & Admin. News, at 3077 ([intent of CERCLA §104(b)(2) is to coordinate response actions with NRD actions] ". . .so as to increase the overall efficiency . . . and the compatibility of the remedial investigations and natural resource investigations undertaken at any one site."); H.R. Rep. No. 253, 99th Cong., 1st Sess. 20 (October 31, 1985) (Section 113(g)(1) was added to CERCLA in part to reflect the fact that ". . . a remedial action at a site may include the restoration, rehabilitation, or replacement of natural resources . . . .").

[63] As explained above and throughout the response to this comment, it is inaccurate to compare the results of the IEc Report with the proposed NRD settlement. Nevertheless, under such a comparison the proposed NRD settlement can be reconciled with the estimated damages in the IEc Report. First, the largest component of the IEc estimate is for passive use losses with an estimated range of $25 to 250 million. The broad range of this estimate reflects the tremendous technical complexities associated with developing this component of a NRD claim -- even before considering litigation risks and other factors not even associated with the specific complexities of passive use analysis. In this particular case the governments, after carefully considering all factors affecting the NRD claim, determined that substantially discounting the estimates for the passive use element of the NRD claim was appropriate. Hence, for purposes of achieving a fair and reasonable NRD settlement, the governments focused on those elements of the NRD claim that were supported by more quantifiable and tangible analyses -- recreational fishing and boating, and lost ecological services. With respect to recreational fishing and boating

planning and implementation of response actions,[61] and with Congress' intent in enacting CERCLA.[62] The IEc Report did not evaluate the value of this critical element of the NRD settlement. In short, the IEc preliminary estimate of damages was not designed or intended to evaluate or value the possible broad range of alternative scenarios, or combination of scenarios, that could constitute reasonable and acceptable compensation for NRD.

Finally, as explained below, the IEc Report was not designed or intended to account for other relevant factors such as the time, cost and litigation risks associated with establishing a NRD claim in court.[63]

---

[61] *See* Section 104(b)(2) of CERCLA, 42 U.S.C. § 104(b)(2) (requiring coordination between natural resource trustees and response agencies during development of response actions); 40 C.F.R. §§ 300.135(j), 300.160(a)(3), 300.430(b)(7), 300.615(c)(1)(ii), and 300.615(e)(2)) (NCP provisions implementing Section 104(b)(2)).

[62] *See* H.R. Rep. No. 99-253(IV), at 47, *reprinted* in 1986 U.S. Code Cong. & Admin. News, at 3077 ([intent of CERCLA §104(b)(2) is to coordinate response actions with NRD actions] ". . .so as to increase the overall efficiency . . . and the compatibility of the remedial investigations and natural resource investigations undertaken at any one site."); H.R. Rep. No. 253, 99th Cong., 1st Sess. 20 (October 31, 1985) (Section 113(g)(1) was added to CERCLA in part to reflect the fact that ". . . a remedial action at a site may include the restoration, rehabilitation, or replacement of natural resources . . . .").

[63] As explained above and throughout the response to this comment, it is inaccurate to compare the results of the IEc Report with the proposed NRD settlement. Nevertheless, under such a comparison the proposed NRD settlement can be reconciled with the estimated damages in the IEc Report. First, the largest component of the IEc estimate is for passive use losses with an estimated range of $25 to 250 million. The broad range of this estimate reflects the tremendous technical complexities associated with developing this component of a NRD claim -- ever before considering litigation risks and other factors not even associated with the specific complexities of passive use analysis. In this particular case the governments, after carefully considering all factors affecting the NRD claim, determined that substantially discounting the estimates for the passive use element of the NRD claim was appropriate. Hence, for purposes of achieving a fair and reasonable NRD settlement, the governments focused on those elements of the NRD claim that were supported by more quantifiable and tangible analyses -- recreational fishing and boating, and lost ecological services. With respect to recreational fishing and boating

The Governments' Reasonable Evaluation of the NRD Claims

It is well accepted that it is reasonable for a settlement to reflect the relative strength of the governments' case if the case were to be tried. *See* In Re Acushnet River & New Bedford Harbor: Proceedings Re Alleged PCB Pollution, 712 F. Supp. 1019, 1036 ("An interpretation of [CERCLA] more in keeping with the intent of, as well as the language employed by, Congress is one that requires the United States to assess the strengths and weaknesses of its case and drive the hardest bargain that it can."). In this matter, the governments developed a thorough estimate of the nature and extent of NRD, and then carefully negotiated a fair and reasonable settlement after consideration of a variety of litigation risks and time saving factors with respect to their NRD claims. *See* United States v. AMTRAK, 1999 WL 199659, *13 – *14 (E.D.Pa.); U. S. v. Montrose Chem. Corp. of California, 50 F.3d 741, 746–747 (9th Cir. 1995); U.S. v. Charles George Trucking, 34 F.3rd 1081, 1087 (1st Cir. 1994) (reasonable NRD estimate provides sufficient basis to engage in negotiations for settlement).

For example, GE has argued that the NRD claims at the Site are barred by the statute of limitations provisions for NRD claims under CERCLA at 42 U.S.C. § 9613(g). These provisions are very complex and may affect a NRD claim based on a particular site's status under CERCLA

---

the IEc Report estimated a damages range of $11 to 32 million dollars. With respect to ecological services IEc performed a modeling analysis that estimated ecological service losses in terms of habitat acreage loss of approximately 12,000 acres due to PCB contamination (see Exhibit 10 to Memorandum of Law). Under the proposed Consent Decree, when combining the approximately $25 million in compensatory NRD along with the primary restoration to be accomplished through response actions (i.e., response actions that will address thousands of acres of PCB contaminated natural resource habitat), the NRD component of the settlement is well within an acceptable range of the total estimated losses for recreational uses and ecological services.

as well as the length of time from discovery of the natural resource injury. Although the governments believe their arguments are legally correct, the outcome is not assured. United States v. Asarco, 28 F.Supp.2d 1170 (D. Idaho 1998) (precluding natural resource claims for areas not listed on the NPL), rev'd on other grounds, 2000 WL 767702 (9th Cir. 2000); United States v. Montrose, 883 F. Supp. 1396 at 1406 (D.C. Cal. 1995) (barring action based upon length of time government knew about contamination), rev'd sum nom, on other grounds, California v. Montrose Chem. Corp., 104 F.3d 1507 (9th Cir. 1997). Also see, Kennecott Utah Copper Co. v. United States Department of Interior 88 F.3d 1191(D.C. Cir. 1996)(rejecting favorable interpretation of limitations period). Accordingly, the proposed Consent Decree is an acceptable compromise

In addition to the statute of limitations challenges, the governments faced other substantive litigation risks in connection with proving their NRD claims. These risks are inherent to all NRD claims because of the "causation" requirement the governments must meet under CERCLA in proving NRD (*see* 42 U.S. C. §9607(a)(4)(C)) and because of the complexity of the methods used to place value on natural resource injury and other categories of natural resource damages, particularly active human uses (i.e., recreational boating and fishing) and passive human uses (i.e., aesthetics). With respect to NRD claims at this Site, the governments carefully considered the risks related to IEc's analyses of lost ecological services, lost

recreational services,[64] and lost passive use of natural resources.[65]

With respect to the lost ecological services component of the NRD claim, the governments faced the challenge of deciding between the development and use of costly and time consuming Site specific injury studies and using a combination of non-Site specific injury studies and less detailed Site specific information to estimate the range of ecological injury. For settlement purposes the governments relied upon the latter approach. For litigation, the governments would have had to seriously consider incurring the time and expense of conducting detailed Site and resource specific injury research in the field (several million dollars and 3-7 years to complete). The results of such studies would have been subjected to a rigorous and time-consuming challenge by GE.

With respect to recreational services (primarily fishing and boating), the governments adopted a similar approach as with ecological services. To reach their conclusions, the governments relied upon selected historical data and a limited amount of current user survey/interview data from the region, and then applied certain standard assumptions generally used in this type of economics analysis. This methodology is designed to estimate the potential range of recreational losses. Although the governments are confident that this approach captured the potential range of recreational losses and that it provided an adequate foundation for this

---

[64] Lost ecological services and lost recreational services measure the loss of services, either ecological or recreational, provided by the injured resource. For example, contaminated fish represent a lost recreational fishing service to people and a lost ecological service to animals dependent upon the fish for a food source.

[65] Lost passive use, in simple terms, is the amount people would be willing to pay to have a natural resource cleaned up, regardless of their current or expected future use of the resource.

element of the settlement, reliance upon assumptions would have been challenged at trial.[66] Alternatively, a thorough recreational use study would have been very costly, would have still included many assumptions because of the absence of reliable historical data in the region, and, hence, would have still been subjected to the same challenges in court.

In terms of lost passive use, the largest and most contentious category of loss at this Site (and in any NRD claim), GE has argued that any judge or jury might discount any passive use valuation study as too speculative because passive use studies are based only upon a hypothetical expenditure by a hypothetical "average population" with no actual out of pocket expenses incurred by anyone.[67] At this Site the governments used a non-Site specific literature review in conjunction with user survey/interview data to estimate the range of passive use losses. Although this approach was substantially less rigorous than what likely would be prepared for a trial, the governments are confident that this approach captured the potential range of passive use losses and that it provided an adequate foundation for this element of the settlement. On the other hand, developing and conducting a comprehensive passive use study with respect to this Site would have been extremely costly, would have taken 3-5 years to complete, and would have been subjected to substantial challenge in court.

While the United States believes it could establish liability and the amount of NRD, it is

---

[66] The trustees' assumptions as to lost recreational services are based only on current information and how it likely translates back in time. Some commenters suggest it is appropriate to interview people within the community regarding their recollections of events, however such information may not be as reliable as contemporaneous data.

[67] There is further risk that a court would exclude the passive use study as hearsay, too prejudicial, or failing to meet the requisite industry, or professional, standards for survey methodology.

appropriate for the governments to consider the time and expense of litigation in resolving their claims. To present a NRD claim at trial would have cost the governments millions of dollars which may or may not have been recoverable through judgment. The governments considered the benefit of a sum certain today against the possibility of recovering either a larger sum or a smaller sum in the future, and decided in favor of the guaranteed recovery of approximately $25 million in compensatory damages (through cash payments and specific restoration work) and the primary restoration of the River through response actions. In the context of NRD recovery, Judge Young also confirmed the benefits of prompt recovery over protracted litigation when he entered a settlement over objections that the NRD component was inadequate. Acushnet River, 712 F. Supp. 1019, 1029. In doing so, Judge Young noted that the immediate transfer of money to the trustees is a significant factor in settlement. In this instance, the trustees will have control over significant settlement funds, over $15 million plus interest, and perhaps more importantly, the settlement offers expeditious and long term benefits to natural resources.

GE will implement certain natural resource restoration projects within the time frames specified in the proposed Consent Decree and will also be required to implement the response actions that are selected for the Rest of River which will be developed in coordination with, and with input from, the federal and state natural resource trustees. Therefore, because the NRD portion of the settlement consists of multiple components, and is not solely a cash settlement, its value is further enhanced. Although CERCLA allows for the recovery of "damages," the objective of the NRD provisions in CERCLA is to effectuate the restoration of injured natural resources. See 42 U.S.C. § 9707(f)(1). Section 122 overall, and Section 122(j) specifically, contemplate and encourage settlements of the type entered into with GE and PEDA with respect

to combining response action and natural resource restoration. *See* CERCLA §122(j) and footnotes 61 and 62.

In evaluating a NRD settlement, Judge Young has cautioned "this Court is not required to ensure that the sovereigns have struck the best deal possible." Acushnet River, 712 F. Supp. 1019, 1031. Thus, even if some contend that the governments have not achieved the very best deal possible, when considered in light of the relative risk, expense and time of litigation, the governments have achieved a settlement of more than substantial merit.

B. Other Comments on the NRD Settlement

Comment 77: Several commenters noted that community and other non-governmental organizations should be invited to participate in the natural resource damage assessment restoration process, including the creation of, and participation in, a NRD Restoration Plan Advisory Committee.

Response 77: During preparations for settlement negotiations, the Trustees solicited input on natural resource restoration options from numerous non-governmental organizations. Specifically, representatives of the Trustees conducted face-to-face and telephone interviews with local groups including the Berkshire Natural Resources Council, the Great Barrington Land Trust, the Housatonic River Initiative, the Housatonic Valley Association, the Housatonic Coalition, the Housatonic Fly Fishing Association, and Housatonic River Restoration, Inc., among others. These groups provided suggestions on compensatory restoration options for the Housatonic River, and in some cases estimated costs for these projects. Many of these groups also submitted letters or other written materials to the Trustees regarding restoration options for

the river.

Based in part on this input, the Trustees developed a preliminary list of NRDA restoration options and projects for the Housatonic River. This list of options, along with their estimated costs, was used by the Trustees during the negotiation process. In addition to informing the Trustees, the NRDA restoration option list provided GE with concrete examples illustrating how the NRDA monies could be spent to help restore the natural resources of the Housatonic River.

Section 111(i) of CERCLA, 42 U.S.C. §9611(i), requires the development of a restoration plan(s) for the use of NRD funds recovered pursuant to CERCLA, prior to the expenditure of such funds for restoration of natural resources (unless there is a need for emergency action). Section 111(i) further mandates that the required restoration plan(s) be developed and adopted by the Trustees and the Governors of the states where natural resources have been injured, after adequate public notice and opportunity for hearing and consideration of all public comment. In accordance with the public participation requirements of Section 111(i), the Trustees will be seeking extensive public input as part of the restoration planning process and they intend to involve non-governmental organizations and other interested parties as much as is practicable and allowable under applicable law. No changes to the Consent Decree are necessary to ensure that process is followed. Also see Response 5 regarding public participation in the Rest of River remedial decision making process on pages 12-14.

At this time, the Trustees plan to form a Trustee Council composed of authorized representatives (as required under CERCLA and the NCP) from Massachusetts, Connecticut, DOI and NOAA. The Trustee Council will be responsible for directing the development, final approval, and implementation of restoration plan(s) for restoration activities in Massachusetts

and Connecticut, pursuant to the Trustees' authority and responsibilities under Section 107(f) of CERCLA, 42 U.S.C. §9607(f)(the President and authorized officials of states shall act on behalf of the public as trustees for natural resources). The Trustee Council will also ensure that there is adequate public notice and opportunity for hearing and consideration of all public comment, as required by Section 111(i) of CERCLA. In addition to open meetings and routine notice and comment procedures, the Trustees are exploring other methods of public participation that will ensure more comprehensive public input into the restoration planning process. Because of the requirements of Section 111(i) of CERCLA, the public participation process to develop and implement final restoration plans will be more comprehensive than the process previously developed for the time-critical negotiation process.

Regarding the involvement of non-governmental organizations in the settlement negotiations with GE, please *see* Response 4 above regarding the confidentiality of settlement negotiations.

Comment 78 : A few commenters said that a flood plain analysis was not conducted as part of the Natural Resource Damage Assessment.

Response 78: The Trustees conducted a flood plain analysis as a supplement to the preliminary estimate of damages. See Exhibits 9 and 10 to the Memorandum of Law, the IEc Report and the Housatonic River Evaluation of Natural Resource Damages ("Evaluation of NRD"). In particular, the Trustees estimated the percentage ecological service loss due to PCB contamination in flood plain areas between Pittsfield, Massachusetts and the Connecticut border. Approximately 6300 acres of flood plain were assessed for ecological injury by examining PCB

concentrations in indicator species. [68] This information was available to the Trustees during the settlement negotiations and was made available to the public in October of 1998, when the governments began holding meetings with the public and other interested parties to explain the preliminary agreement with GE. See Exhibit 10 to the Memorandum of Law, Evaluation of NRD. The Trustees first made this information available to the public on October 21, 1998, in Lee, Massachusetts, when the Trustees participated in the first of several public meetings where the NRD provisions of the overall settlement were discussed.

Comment 79: Several commenters stated that the NRD monies should be used for the Housatonic River only. Others said that NRD monies should not be constrained to the Housatonic River, and that other water bodies in the Housatonic River watershed, such as the Naugatuck River, should be eligible for restoration projects.

Response 79: The Trustees plan to create a Trustee Council that will examine a wide range of options for using the NRD settlement monies for restoration of the affected Housatonic River environment. The Trustee Council will be guided by the requirements of Section 107(f) of CERCLA, 42 U.S.C. §9607(f), which states that sums recovered by the Trustees for NRD shall be used to restore, replace, or acquire the equivalent of injured natural resources. As restoration options are developed and considered the Trustee Council will carefully evaluate the nexus between a proposed restoration option and the injury to the Housatonic River environment from

---

[68] An indicator specie is a specie that is sensitive to exposure to the contaminant(s) of concern and is a natural inhabitant of the ecosystem being studied. For the Housatonic River, fish, avian, and mammalian indicator species were chosen as representatives of potential injury to the river ecosystem; terrestrial invertebrate and avian species were chosen to represent potential injury to the flood plain ecosystem.

PCB contamination. While direct restoration of the injured environment is the logical preference, it may not always be technically feasible or practicable, and restoration scenarios involving adjacent or offsite areas may be appropriate. Further, there may be circumstances where an adjacent or offsite restoration project(s) in combination with an onsite project(s) may be designed to complement each other and to yield significant long-term restoration benefits to the directly affected environment (i.e., protection/restoration of a tributary or flood plain that feeds into and/or supports an area of the river that will undergo significant remediation). The "restore, replace, or acquire the equivalent" language of Section 107(f) of CERCLA, provides the Trustees with the appropriate flexibility needed to formulate the most beneficial restoration plan(s) for the Housatonic River environment.

As the restoration planning process gets underway, the Trustees will solicit and encourage public input prior to making any final decisions. With respect to NRD funds to be received under the proposed Consent Decree, no decisions have been made regarding which projects will take place, or the specific geographic locations of any restoration projects.

Comment 80: A few commenters wrote that a Natural Resource Damage Assessment was conducted only for the portion of the Housatonic River in Massachusetts, and not for the stretch of river in Connecticut.

Response 80: A Preliminary Natural Resource Damage Assessment for the Housatonic River was prepared by Industrial Economics, Incorporated ("IEc") for the Trustees as well as supplemental evaluations. See Exhibits 9 and 10 to the Memorandum of Law, IEc Report and Evaluation of NRD. In the IEc Report and the supplemental evaluations, IEc completed parallel analyses in Connecticut and Massachusetts of the injuries and damages associated with PCB

contamination in the Housatonic River. Specifically, IEc assessed the lost and diminished value of fishing trips in Connecticut, including popular trout fish areas, a potential walleye fishery, and lake fishing on the lower river. The potential for a reduction or diminishment in boating trips was also considered for these sections of the river. In addition, as part of the overall NRDA evaluation, the Trustees and IEc conducted public and angler focus groups in Hartford and Danbury, Connecticut. As part of the supplemental evaluations IEc also prepared an analysis of the injury to ecological services in Connecticut and Massachusetts. This type of analysis, known as a "Habitat Equivalency Analysis," considered lost environmental services due to elevated PCB levels in the sediment of the Housatonic River in Connecticut.

Comment 81: Several commenters argue that "in-kind" services provided by PEDA to the Trustees should not be counted as credit against the $4 million in payments they are required to make.

Response 81: As set forth in the proposed Consent Decree, the Trustees believe that some categories of in-kind services are appropriate and can be considered as credit against PEDA's $4 million obligation. First, in-kind services that provide infrastructure or administrative services that the Trustees would need to obtain regardless of the PEDA agreement represent a real benefit to the Trustees since they preserve valuable time and money for actual restoration that would otherwise be paid for by the Trustees out of the recovered funds (possibly at a significantly higher rate). Second, the establishment of appropriate habitat and/or habitat enhancements by PEDA in the redeveloped GE Plant Area that would not otherwise be established or even required under state, federal or local law represents restoration that should be considered as credit towards the $4 million obligation. Thus, in-kind services represent real

benefits to the public, and are an appropriate component of the NRD settlement.

Comment 82: Several commenters argue that the IEc Report did not include all available and relevant injury data, and that additional analysis and monitoring are required.

Response 82: The IEc Report, and the subsequent habitat equivalency analyses performed for the Trustees by IEc, considered a wide range of available data on PCBs in the Housatonic River environment. Specifically, the Trustees considered the extent to which the existing database provided evidence of injury, as defined in the Department of the Interior regulations for natural resource damage assessments, to surface water, sediments, soils, fish, invertebrates, birds, mammals, reptiles and amphibians, groundwater and air. The habitat equivalency analysis that was conducted for the Trustees considered PCB concentrations in sediments and flood plain soils as a reasonable proxy for exposure to various PCB biota, and thus a measure of potential injury to biota.

While the Trustees could have undertaken additional studies, including sampling and monitoring of the Housatonic River environment, such assessment activities may not have led to a larger claim or higher settlement amount. The costs and risks inherent in any such studies were carefully considered by the Trustees in evaluating the terms of the settlement offered by GE (*see* generally, the Response 76, addressing the inadequacy of the NRD settlement and the Trustees' authority to settle NRD claims under Section 122(j) of CERCLA).

Comment 83: Several commenters state that damages prior to 1980 should have been considered by the Trustees, since releases, injuries and damages existed both prior to and after this date.

Response 83: The Trustees directed their consultant (Industrial Economics, Incorporated (IEc))

to limit the analysis to damages incurred from 1980 on. This decision was based on the fact that limited verifiable data exists to describe natural resource injuries or damages prior to 1980. Thus, any analysis conducted of this time period would require the use of assumptions and extrapolation of existing data.

For example, the Department of the Interior regulations for damage assessment require the Trustees to consider the "baseline" quality of the natural resource; in this case, baseline represents the quality of the Housatonic River environment absent elevated levels of PCBs. Assessing the baseline quality of the Housatonic River as it existed prior to 1980, in a manner that would withstand the scrutiny of litigation, would be extremely difficult and costly. Thus, an assessment of the recreational fishery prior to 1980 would require information on other factors affecting angler use of the river, such as the presence of other sources of pollution, catch rates, and other detailed data. Note that, despite these limitations, in several instances IEc judged the available data sufficient to calculate recreational fishing losses prior to 1980 (i.e., for two segments of the Housatonic River fishery in Connecticut). However, given the particular circumstances of the GE-Pittsfield Housatonic River Site, it was determined that evaluating damages prior to 1980, would have been very costly and challenging to defend. *See generally*, the Response 76, addressing the adequacy of the NRD settlement.

Comment 84: One commenter argues that the Trustees should have considered contaminated groundwater in the natural resources damage claim.

Response 84: The Trustees did consider injury to groundwater in the Pittsfield area, and the extent to which economic damages have resulted from such injury. The Trustees conclusion was that the magnitude of the economic loss associated with any such contamination did not warrant

the considerable cost of completing a full assessment.[69]

Comment 85: One commentor believes that Silver Lake should have been included in the IEc Report.

Response 85: In the context of developing the IEc Report, it was determined that very little verifiable data existed to define prior public use of Silver Lake, or the extent of prior ecological resources impacts, and what the conditions would have been like in the Lake in the absence of PCBs. Thus, no attempt was made to quantify impacts to the Lake.

However, the Trustees recognized the importance of Silver Lake, and thus the Consent Decree provides for remediation of the Lake, habitat and recreational enhancements in and around the Lake, and funding for aquatic habitat and fish restoration in Silver Lake. The Trustees believe that these actions will return the Lake to a viable and usable resource and therefore, provide adequate compensation to the public.

Comment 86: Two comments object to the Decree asserting that the United States failed to comply with DOI regulations because the government failed to include the Schaghticoke Tribal Nation ("Schaghticoke") at the negotiating table.

Response 86: This objection does not provide a basis for the United States to withdraw from the settlement. The basis for the objection is flawed for several reasons: (1) the Schaghticoke did not raise this objection to the Decree and the Tribal Nation endorses the Decree; (2) the Schaghticoke is not a federally recognized Indian tribe, and is therefore not entitled to pursue claims for natural resource damages under CERCLA; and (3) the Schaghticoke, as with the general public at large,

---

[69] *See* Response 52 regarding the lack of current or foreseeable use of groundwater as a source of drinking water in the Pittsfield area.

has been provided ample opportunity to influence and inform the settlement process. These points are discussed in greater detail below.

First, the Schaghticoke did not object to the Decree on the grounds that the Schaghticoke was not party to the negotiations. Only Review Appraisals, Inc. ("RAI") and the Housatonic Environmental Action League ("HEAL") have raised such objections. RAI and HEAL are not Indian tribes, are not members of an Indian tribe, and are not representatives of the Schaghticoke. Accordingly, RAI and HEAL have no standing to complain that the Schaghticoke was not invited to negotiations. In fact, the Schaghticoke Tribal Nation has expressed its support for the Consent Decree.[70]

Even if the Schaghticoke had requested a seat at the negotiating table, the Schaghticoke is entitled to no greater access to the settlement process than the general public. The Schaghticoke is situated no differently than the general public because the Schaghticoke is not a federally recognized Indian tribe within the meaning of Sections 101(36) and 107(f) of CERCLA. In re Burbank Environmental Litigation, 42 F.Supp.2d 976, 980 (C.D. Ca. 1998) (private citizens not entitled to benefits afforded to Indian tribes under CERCLA). Section 101(36) defines the term "Indian tribe" to mean any

> Indian tribe, band, nation, or other organized group or community, ... , which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

---

[70] See Exhibit 13 to the Memorandum of Law, Declaration of Chief Richard Velky, dated June 12, 2000. Some individuals who assert they are members of the Schaghticoke Tribe ("the Harrion-Russell Group") have sought to intervene in the United States' action against GE to oppose the settlement. The Harrison-Russell Group did not file comments during the public comment period.

Congress has charged the Secretary of the Interior with the supervision of all public business relating to Indians, 43 U.S.C. §1457, and has further required the Secretary to publish a list of all Indian tribes entitled to federal benefits because of their status as Indians. 25 U.S.C. § 479(a)-1(a). The Schaghticoke Tribal Nation is not included on this list. 65 Fed. Reg. 13298 (March 13, 2000). Accordingly, the Schaghticoke fails to qualify as an Indian tribe vested with authority to recover natural resource damages under CERCLA. 42 U.S.C. § 9607(f).[71] Because the Schaghticoke has no cognizable claim for natural resource damage recovery under CERCLA, the rights of the Schaghticoke to participate in negotiations is no greater than the rights of any private citizen.

Finally, the government has provided all private citizens, including the members of the Schaghticoke, with the opportunity to participate in the settlement process as required by 42 U.S.C. §§ 9622, 9673, 40 C.F.R. Part 124, Subparts A and B, and 28 C.F.R. § 50.7. In fact, the United States provided the public with greater opportunities to shape and inform the settlement than is required by law, regulation or policy. *See* Response 4 regarding the confidentiality of negotiations.

Comment 87: One commenter questioned the wisdom of allowing GE to perform an assessment of the integrity of Woods Pond Dam and Rising Pond Dam, asserting that the assessment may not be as thorough or reliable as a government performed assessment with public review.

Response 87: Paragraph 123 of the proposed Consent Decree (pages 273 – 276) addresses dam integrity assessment at Woods Pond Dam and Rising Pond Dam. Although GE will be

---

[71] This argument applies to the Harrison-Russell group as well. These individuals are not recognized as an Indian Tribe by the State of Connecticut or the United States.

performing the assessment, Paragraph 123 requires that a report of the assessment be provided to the governments (which would be available to the public). Paragraph 123 further provides for extensive review and comment by the governments, dispute resolution and, if necessary, judicial review if GE and the governments can not reach agreement on appropriate interim measures to ensure dam integrity. The governments believe that the process set forth in Paragraph 123 will ensure that thorough assessment will be conducted and that the public's interest on this issue is adequately protected.

In addition, further investigation of the integrity of Woods Pond Dam, Rising Pond Dam, and other dams in the Housatonic River will be undertaken as part of the Rest of the River investigation.