
ATTACHMENT 3
EXCERPTS FROM EPA'S STATEMENT OF POSITION
IN SUPPORT OF THE INTENDED FINAL DECISION ON
THE MODIFICATION TO THE REISSUED RCRA PERMIT
AND SELECTION OF CERCLA RESPONSE ACTION
(FEBRUARY 29, 2016)
(REGION SOP)

**STATEMENT OF POSITION OF THE U.S. ENVIRONMENTAL
PROTECTION AGENCY**

**IN SUPPORT OF INTENDED FINAL DECISION ON THE
MODIFICATION TO THE REISSUED RCRA PERMIT AND
SELECTION OF CERCLA RESPONSE ACTION**

**REST OF RIVER REMEDY, GE-PITTSFIELD/HOUSATONIC
RIVER SITE**

February 29, 2016

Table of Contents

Executive Summary of the Argument	1
I. BACKGROUND.....	4
A. Consent Decree and RCRA Permit	4
B. Site History and Background	5
C. Statutory and Regulatory Background	5
D. Rest of River Process:	6
E. EPA’s Intended Final Decision	7
F. Current Dispute Resolution	9
II. STANDARD OF REVIEW	9
III. ARGUMENT	10
A. EPA Followed the Consent Decree Process for Selecting a Remedy and Made the Right Decision When Selecting the Remedy Based on the Relevant Factors.	12
1. EPA Followed the Decree Process for Selecting the Remedy	12
a. Process for Gathering Scientific Information and Analysis under the Decree.	12
b. Process for Gathering Community Input under the Decree	13
c. Process for Collecting Public Comment from GE, and State Regulators	14
d. EPA’s Substantive Decision is Entitled to Deference.....	14
2. EPA Made the Right Substantive Decisions When Selecting the Remedy.....	15
a. Health Basis for Overall Remedy and Ecological Issues:	15
b. Woods Pond.....	27
c. Reach 7 Impoundments:	31
d. Rising Pond:	35
e. Backwaters adjacent to Reaches 5, 6, and 7:	36
f. Engineered Cap:	39
g. Off-Site Disposal	42

- B. EPA Selected a Remedy that Provides a Level of Certainty Supported by the Consent Decree, RCRA, and CERCLA.....56
 - 1. PCB Downstream Transport and Biota Performance Standards 59
 - a. The Standards are supported by PCB source or risk control objectives. 59
 - b. EPA exercised sound judgment in relying on the model work to develop the Performance Standards. 60
 - c. The Performance Standards do not exceed EPA’s Consent Decree or statutory authority. 62
 - 2. Requirements Regarding Legally Permissible Future Projects or Work in Sediment and Banks 64
 - 3. Requirements Regarding Future Floodplain Activities and Uses..... 68
 - a. EREs/Conditional Solutions 69
 - b. Legally Permissible Future Project or Work and/or Changes in Use... 70
 - 4. Inspection, Monitoring, Maintenance at Non-GE-Owned Dams 71
 - 5. GE Responsibilities Regarding Catastrophic Failure or Material Breach of a Dam 74
- C. EPA Correctly Interprets the Consent Decree and GE Cannot Shirk its Liabilities. 76
 - 1. Restoration Requirements for Areas Disturbed by Remediation Activities..... 77
 - a. Restoration and Compensatory Mitigation 77
 - 2. Massachusetts Endangered Species Act 80
- D. EPA Correctly Designated ARARs and ARAR Waivers 83
 - 1. Water Quality Criteria: 83
 - 2. Clean Water Act Section 404 Regulations: 84
 - 3. Executive Orders on Wetlands and Floodplains:..... 86
 - 4. Massachusetts Water Quality Certification Regulations: 87
 - 5. Massachusetts Wetlands Protection Act Regulations:..... 89

6.	Massachusetts and Connecticut Dam Safety Regulations:	90
7.	Massachusetts Location Standards for Hazardous Waste Management Facilities	91
8.	Massachusetts Site Suitability Criteria for Solid Waste Facilities:	92
9.	MESA:	94
IV.	CONCLUSION	94

List of Tables

Table 1 Abbreviations

Table 2 Sites Included in Exhibit A of GE’s Statement of Position that had Off-Site Disposal of PCB-Contaminated Sediment

Table 3: Cross-References to Arguments in GE’s Statement of Position

List of Figures

Figure 1 Rest of River (Reaches 5 through 16)

Figure 2 Rest of River (Reaches 5 through 8)

Attachments

Attachment A Timeline of Process Opportunities for GE and Public

Attachment B Response to GE’s Comments on Toxicity Values Used to Evaluate Human Health Risks

Attachment C Responses to GE’s Comments on EPA’s Ecological Risk Assessment and Development of IMPGs for Amphibians, Insectivorous and Piscivorous Birds, and Mink

Attachment D Responses to GE’s Arguments on Potential Harm from EPA’s Proposed Remedy

Attachment E Cross-References to Arguments in GE’s Statement of Position

Conservation and Recovery Act (“RCRA”) and the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”). CD ¶ 1.³

The Decree, *inter alia*, requires GE to complete response actions at over twenty-five separate areas contaminated by GE’s PCBs, CD §§ VI-IX, to reimburse the Plaintiffs for their costs incurred in responding to the PCB threats CD § XX, and to provide compensation and perform activities to address natural resource damages. CD § XXI. The Decree also provides GE with covenants not to sue by the Plaintiffs, and recognizes the protection for GE from contribution actions based on GE’s commitment to perform the cleanups. CD §§ XXVI (Covenants by Plaintiffs) and XXIX (Contribution Protection). The subject of this dispute is the “Rest of River” area, which is described below.

EPA and GE agreed that the Decree and the RCRA Corrective Action Permit, Appendix G to the Decree, would govern the Rest of River investigation, corrective measures alternatives analysis and remedy selection process. CD ¶ 22.⁴ EPA and GE also agreed that, following remedy selection and any challenges to that selected remedy, GE is obligated to perform the selected Rest of River Remedial Action and operation and maintenance, pursuant to CERCLA and the Decree. CD ¶ 22.p.

B. Site History and Background

GE used PCBs at its 254-acre facility in Pittsfield, Massachusetts from 1932 to 1977. During this time, the Transformer Division manufactured and repaired transformers containing dielectric fluids, some of which included PCBs. PCBs and other hazardous substances were released to soil, groundwater, Silver Lake, the Housatonic River and were disposed of within and around the facility in landfills, former river oxbows, and other locations. The Decree for the GE-Pittsfield/Housatonic River Site (“the Site”) was approved by the federal court in October 2000. The Decree segregated the Site into 28 separate cleanups. Twenty-seven of the Site cleanups (20 Removal Actions Outside the River, 5 Groundwater Management Areas, the Upper-½ Mile Reach of the Housatonic River, and the 1½-Mile Reach of the Housatonic River), are CERCLA removal actions. The remaining cleanup area in the Site is Rest of River, which is the subject of this dispute.

Rest of River includes approximately 125 miles of river in Massachusetts and Connecticut and the associated floodplain. Reaches 5 through 8 flow through the City of Pittsfield and the towns of Lenox, Lee, Stockbridge, and Great Barrington, Massachusetts. There are also approximately 100 acres of backwaters adjacent to Reaches 5 and 6. In addition, there are six dams with impoundments behind them in Reaches 5 through 8. The first dam is Woods Pond, also referred to as Reach 6, and is owned by GE. There are four privately owned dams in Reach 7, and GE owns Rising Pond Dam, which is also referred to as Reach 8. Reach 9 flows through Sheffield, Massachusetts. Reaches 10 through 16 are in Connecticut, from Canaan downstream to Derby. See Figures 1 and 2.

C. Statutory and Regulatory Background

³ Citing CERCLA, 42 U.S.C. §§ 9606, 9607, 9613(b); RCRA – 42 U.S.C. §§ 6928, 6973.

⁴ The RCRA Permit is incorporated into the Decree as Appendix G to the Decree. See Paragraph 212 of the Decree (“[t]he following appendices are attached to and incorporated into this Consent Decree... “Appendix G” is the Draft Reissued RCRA Permit.”)

GE also argued in 2004 (and continues to argue) that the ERA improperly focused on effects to individual organisms instead of local populations and communities.⁸⁴ While EPA disagreed with GE's premise, it agreed to clarify that, in accordance with EPA guidance,⁸⁵ "impacts at lower levels of organization (*e.g.*, adverse effects on survival of individuals) are often used to infer possible impacts at higher levels of organization (*e.g.*, persistence of local populations)."⁸⁶ The final ERA, issued in November 2004, explained that "[a]lthough many of the endpoints⁸⁷ presented are linked to organism-level effects (*e.g.*, survival and reproduction), these endpoints are expected to be strong indicators of potential local population-level effects," and "[e]xtrapolation from organism-level to population-level effects may be logically achieved based on the predictive nature of the endpoint and/or through the use of process-based models."⁸⁸

The initial ERA and the public comments (including GE's 2004 comments) were subject to peer review by a panel of independent risk assessment experts. Although the peer reviewers did provide critical comments on some aspects of the ERA, their comments were generally supportive of the ERA's conclusions and methodology.⁸⁹

In short, the ERA shows that GE's PCBs generate significant and unacceptable risks to the ecosystem and biota. Accordingly, the PCB contamination must be remediated to protect the environment.

vii. The remedy's long-term benefits to human health and the environment outweigh any short-term ecological impacts, which GE is required to mitigate.

Of all the alternatives, the proposed remedy best balances remediating the contamination with minimizing and mitigating the ecological impacts of constructing the remedy.⁹⁰ GE alleges, incorrectly, that the benefits of the proposed remedy are outweighed by the ecological harms associated with implementation. On this basis, GE argues that EPA's selection of the remedy is arbitrary and capricious, does not provide "overall protection of the environment" as required by the Decree, and does not properly balance short-term impacts and long-term harms as required by EPA guidance.⁹¹ On the contrary, EPA has determined that the proposed remedy provides the best balance in terms of reducing residual risk and minimizing long-term ecological impacts.⁹² As crafted, the proposed remedy limits short-term impacts to key habitats and ensures that disturbed areas will be restored after remediation. Thus, EPA's proposed remedy reasonably accepts some short-term impacts in favor of long-term protection of the environment.

⁸⁴ GE 2004 ERA Comments Presentation at page 6, and restated in GE's SOP at 16.

⁸⁵ EPA 1997 Ecological Risk Assessment Guidance for Superfund

⁸⁶ Responsiveness Summary to the Peer Review of the ERA at 30 and 31.

⁸⁷ Endpoints refer to the Assessment and Measurements Endpoints identified during the Problem Formulation stage of the ERA development.

⁸⁸ Final ERA at page 2-68.(citing Ecological Risk Assessment and Risk Management Principles for Superfund Sites. OSWER Directive 9285.7-28P; EPA (U.S. Environmental Protection Agency). 1992. Framework for Ecological Risk Assessment. Risk Assessment Forum, Washington, DC. EPA/630/R-92/001).

⁸⁹ Responsiveness Summary to the Peer Review of the ERA.

⁹⁰ Statement of Basis at 31.

⁹¹ GE Dispute Letter (Jan. 19, 2016) at 14.

⁹² Statement of Basis at 31.

There are specific provisions in the proposed remedy to avoid impacts to key habitats designated as “Core Area 1” by the Massachusetts Division of Fish and Wildlife. Core Area 1 includes the “highest quality habitat for species that are most likely to be adversely impacted by PCB remediation activities.”⁹³ GE must avoid excavation in Core Area 1 habitat except in limited areas where necessary to meet Secondary Floodplain Performance Standards.⁹⁴ Additionally, no excavations shall occur in Vernal Pools or backwaters (unless PCBs are greater than 50 ppm) in Core Area 1.⁹⁵ In addition, bank excavation is significantly limited in Reach 5B and limited in Reach 5A to a lesser extent.⁹⁶ Furthermore, in Core Areas 2 and 3⁹⁷ impacts will be minimized and, on a case-by case basis, avoided.⁹⁸ Phasing the work will also disperse the effects of the construction activities over time (the remedial action period is estimated to be 13 years) and space (a distance of over 30 miles).⁹⁹ These and other restrictions will limit the short-term ecological impact of implementing the remedy.

In the long-term, the reduction in PCB exposures and the active restoration that will occur after implementing the proposed remedy ensure that the permanent benefits of remediation will far exceed the short-term harm. Performance Standards set forth in Paragraph II.B.1.c(1) of the modified permit require GE to:

(a) Implement a comprehensive program of restoration measures that addresses the impacts of the Corrective Measures on all affected ecological resources, species and habitats, including but not limited to, riverbanks, riverbed, floodplain, wetland habitat, and the occurrence of threatened, endangered or state listed species and their habitats, and,

(b) Return such areas to pre-remediation conditions (e.g., the functions, values, characteristics, vegetation, habitat, species use, and other attributes), to the extent feasible and consistent with the remediation requirements.

Paragraph II.B.1.c.(2) requires GE to follow a four-step restoration process. GE must assess pre-remediation conditions; develop restoration criteria for Corrective Measures; develop a restoration coordination plan to be performed during the implementation of the Corrective Measures; and, finally, design and implement a Restoration Plan for all areas disturbed by the remediation activities.

Remediating and restoring Rest of River is necessary to ensure the long-term health of the ecosystem. As discussed above, PCBs pose significant risks to aquatic life and wildlife in the Housatonic River, particularly in the PSA. While elements of the ecosystem that are unaffected by PCBs continue to function (e.g., the plant community), pollution from GE’s Pittsfield facility has significantly degraded many aspects of the Housatonic River

⁹³ Mass. DFW, Core Habitat Areas in the Primary Study Area (2012) at 1-2.

⁹⁴ Intended Final Decision at 47.

⁹⁵ Intended Final Decision at 28, 50.

⁹⁶ Intended Final Decision at 24.

⁹⁷ Core Area 2 and 3 are defined in the 7/31/12 Letter from Jon Regosin (MADFW) to Robert G. Cianciarulo (USEPA), Re: Housatonic River, Core Habitat Areas in the Primary Study Area.

⁹⁸ Intended Final Decision at footnote 11.

⁹⁹ Statement of Basis

environment. Left alone, the ecosystem will not repair itself for several decades or even centuries.¹⁰⁰ The restoration component of the remedy will support and accelerate natural ecosystem recovery processes.¹⁰¹ While remediation of the river and floodplain at this scale cannot be accomplished to any meaningful level without impacts to the present state of the river and floodplain, the restoration activities will mitigate impacts caused by the remediation.¹⁰² Over the long-term, restoration activities will return the processes sustaining diverse river and floodplain communities.¹⁰³

Ecosystem restoration is an emerging science that has been practiced successfully at many large riverine sites.¹⁰⁴ EPA has published specific guidance on aquatic restoration.¹⁰⁵ In addition, several federal agencies, including the National Research Council, Natural Resources Conservation Service and the Fish and Wildlife Service have published guidelines for river restoration projects.¹⁰⁶ Additional guidelines are available from non-profit organizations, such as the Society for Ecological Restoration—a non-profit organization comprised of individuals and organizations from around the world representing the public, private, and non-profit sectors. Scientific literature and the work of restoration practitioners provides additional information and specific technical guidance.¹⁰⁷ In recent years, the number of river restorations has grown exponentially, and restoration techniques are used to achieve a wide array of goals, such as removing contaminants, and supporting fisheries and wildlife.¹⁰⁸

Examples of riverine restoration projects include a 35-acre contaminated wetland and stream remediation and restoration project at Loring Air Force Base in Maine. After only 6 years, large areas of remediation were virtually indistinguishable from the areas prior to disturbance.¹⁰⁹ Another example is the remediation of the Clark Fork River in Montana, where hazardous mining waste contaminated 43 miles of river bed sediments and the floodplain. The state developed a restoration plan to restore river and floodplain habitats, maximize the long-term beneficial effects and cost-effectiveness of restoration activities, and improve natural aesthetics. Remediation and restoration activities have begun, with contaminated soil being removed and replaced with clean soil, and streambanks stabilized and replanted with native vegetation.¹¹⁰ While rivers are unique and restorations vary depending on the setting, these and other example projects show that restoration on the scale of the Rest of River ecosystem is feasible.

It is important to note that the Commonwealth of Massachusetts supports the proposed remedy, despite the short-term impacts to the environment. Throughout its 2014 comments and SOP, GE misleadingly suggests that the Commonwealth does not support EPA's proposed

¹⁰⁰ Comparative Analysis, Attachment 12 at 1.

¹⁰¹ Comparative Analysis, Attachment 12, at 6.

¹⁰² Comparative Analysis, Attachment 12, at 6.

¹⁰³ Comparative Analysis, Attachment 12, at 6.

¹⁰⁴ Comparative Analysis, Attachment 12 at 8.

¹⁰⁵ USEPA, 2000. Principles for the Ecological Restoration of Aquatic Resources. EPA841-F-00-003. Office of Water (4501F), United States Environmental Protection Agency, Washington, DC. 4 pp.

¹⁰⁶ See NRRB Site Information Package (Att. 12 to Comp. Analysis) at 4, e.g., NRCS, 2001; NRCS, 2007; USFWS, 2008.

¹⁰⁷ See, e.g., Fischenich and Dudley (2000) (river hydraulics).

¹⁰⁸ Comparative Analysis, Attachment 12, at 5.

¹⁰⁹ Comparative Analysis, Attachment 12, at 9.

¹¹⁰ Comparative Analysis, Attachment 12, at 9–10 (citing CFRTAC, 2009).

remedy. While in 2011 the Commonwealth did express concerns about potential impacts of the remediation on the ecosystem when commenting on GE’s Revised CMS, EPA and Massachusetts subsequently addressed those concerns through a series of technical discussions culminating in the 2012 status report that outlined a conceptual framework for the remedy, which explicitly focuses on avoiding, minimizing and mitigating impacts to Core Areas.¹¹¹ In its 2014 comments, the Commonwealth—specifically the Executive Office of Energy and Environmental Affairs and its Department of Environmental Protection (“MA DEP”) and Department of Fish and Game—expressly stated its support for the proposed remedy, which is “protective of human health while employing a remediation framework developed in consultation with the Commonwealth and the State of Connecticut that is directed at preserving the dynamic character of the river ecosystem and avoiding, minimizing and mitigating remedy impacts to the affected wildlife and their habitats, with a particular focus on protecting state-listed species.”¹¹²

The Massachusetts Fisheries and Wildlife Board (“MA FWB”), which oversees the Division of Fisheries and Wildlife (the largest landowner in the Rest of River area), also supports the proposed remedy.¹¹³ The FWB recognizes that the PCB contamination at Rest of River “poses a public health risk that must be addressed.”¹¹⁴ While noting that there is no “silver bullet solution” for sites contaminated with PCBs and that crafting the Rest of River remedy has been a “difficult balancing act,” the FWB acknowledged that the proposed remedy “has been crafted to responsibly address the public health risks while responsibly maintaining the natural and recreational values of this section of the Housatonic.”¹¹⁵

Finally, none of GE’s specific technical criticisms¹¹⁶ demonstrate that EPA acted unreasonably in selecting the remedy for the Rest of River site. EPA’s responses to these specific criticisms are presented in Attachment C.

As described above, EPA carefully crafted the proposed remedy to address the ecological risks posed by PCBs and to balance short-term harm to the environment with substantial long-term benefits. Despite temporary disruption of some ecosystems, in the long-term the remedy will provide overall protection of the environment in Rest of River.

¹¹¹ Commonwealth of Massachusetts’ Comments on EPA’s Proposed Cleanup Plan for Rest of River. October 27, 2014, at 4.

¹¹² Commonwealth of Massachusetts Comments, at 2.

¹¹³ Comment Letter from Joseph S. Larson (Mass Fisheries and Wildlife Board) from the Public Hearing conducted by EPA for Draft RCRA Permit Modification. Lenox Memorial Middle/High School, Lenox, MA. September 23, 2014.

¹¹⁴ Comments of Joseph Larson, Mass. Fisheries and Wildlife Board (2014).

¹¹⁵ Comments of Joseph Larson, Mass. Fisheries and Wildlife Board (2014).

¹¹⁶ See GE SOP at 12-16; GE Comments on the Draft RCRA Permit Modification (2014) at 34-37 and Attachments C, D and E.

b. Woods Pond

Requirement: The Intended Final Decision requires removal of approximately 285,000-340,000 cubic yards (“CY”)¹¹⁷ of PCB contaminated sediment and placement of an engineered cap in Woods Pond (Reach 6) .¹¹⁸

GE Position: The intended remedy for Woods Pond requires unnecessary removal and provides insufficient risk-based benefits compared to a smaller, less disruptive, and less costly alternative.

EPA Position: At issue here is the opportunity to permanently remove the risks posed by approximately 285,000-340,000 CY (depending upon EPA’s or GE’s respective calculations)¹¹⁹ of PCB-contaminated sediment. Woods Pond sediment contains approximately 25% of the mass of PCBs present in the Housatonic River,¹²⁰ and does not provide priority habitat for state-listed species.¹²¹ Accordingly, the remedy in the Intended Final Decision for Woods Pond represents the opportunity to remove a significant mass of PCBs from the river system, thereby reducing the potential for downstream transport of PCBs, and significantly reducing the bioavailability and exposure of PCBs to human and ecological receptors (including but not limited to the consumption of contaminated fish) with minimal short- or long-term impacts to the environment from the remediation itself. EPA’s remedy selection for Woods Pond is supported by the Administrative Record, and falls within EPA’s expertise in evaluating all the relevant factors in selecting a remedy for the Rest of River.

In terms of procedure, EPA followed the decision-making process outlined in the Decree and Permit in reaching its proposal for Woods Pond, and GE is not in a better position than EPA to evaluate the relevant considerations. EPA evaluated the relevant criteria based upon the Administrative Record, including comments received from GE and other members of

¹¹⁷ The removal volume estimates are based on the requirements of the Intended Final Decision, which generally calls for removal of sediment throughout the pond and an Engineered Cap placed to result in a residual depth of 6 feet, except in shallower areas.

¹¹⁸ For each remedy component, the Statement of Position provides a general description of the remedy requirements. For the specific requirements, consult EPA’s September 30, 2015 Intended Final Decision.

¹¹⁹ GE and EPA differ on the volume of material required to be excavated from Woods Pond under the Intended Final Decision. EPA based its calculations of 285,000 CY on a minimum water depth of six feet, not an average depth of six feet as GE mistakenly claims. Comparative Analysis, Attachment 6; GE SOP at 16, n. 17. GE provided no support for its 340,000 figure so it is difficult to comment upon its accuracy. Further, GE’s “preferred remedy” as briefly described in its SOP would likely involve the removal of approximately 100,000 CY or more. The 100,000 CY estimate is based on a 1.0 to 1.5 foot excavation (not 9 inches, which was not contemplated in GE’s Revised CMS – See Table 6-1) in both the shallow and deep portions of Woods Pond. Excavation in the deep part of Woods Pond may be necessary to avoid the loss of flood storage capacity in the Woods Pond area. Therefore, the difference between EPA’s Intended Final Decision and GE’s SOP preferred remedy is 185,000 CY, a smaller differential than portrayed by GE. But even if GE’s figures were correct, EPA’s analysis would not change for all the reasons set forth herein. GE’s SOP position was not included in the series of remedial options evaluated by GE in its Revised Corrective Measures Study (“Revised CMS”), so GE’s SOP position has not been fully evaluated by EPA against the remedy selection criteria. Significantly, GE in its Revised CMS, opined that the alternative known as SED 10 best met the permit criteria. For Woods Pond, SED 10 required the removal of 169,000 CY in the top 2.5 feet of sediment without the placement of an Engineered Cap.

¹²⁰ GE’s RCRA Facility Investigation Report for the Rest of River, 2003. Table 4-11. This does not include the PCB mass in the floodplain.

¹²¹ Commonwealth of Massachusetts’ Comments (2014) at 6.

the public in selecting the proposed remedy for Woods Pond. In doing so, EPA relied upon its technical expertise to evaluate the merits of the multiple and complex factors that shape and determine the selection of remedy that is in the public interest to protect human health and the environment. The soundness of EPA's decision is contrasted with GE's bias favoring its own bottom line as shown below.

GE ignores or discounts the many benefits of removing significant quantities of PCB contaminated sediment from Woods Pond.¹²² For example, the Woods Pond represents a significant percentage of the total PCB contamination, in an area that does not provide priority habitat for any state-listed species, and that is amenable to traditional open water dredging technologies. Therefore, there is an opportunity at Woods Pond to remove a significant source of PCBs without impacting the state Core Habitats and by using relatively straightforward engineering methods. Once dredging of the Pond is initiated, continuing deeper dredging to remove a significant mass of PCB contaminated material from the Pond will result in minimal additional natural resources being disrupted while providing the benefit of greater removal. There is no other point on the River where it is possible to remove over 285,000 CY of PCB contaminated material from a single location with fewer negative impacts to habitat.¹²³

GE claims that a shallow removal followed by capping would provide almost the same level of protection to human health and the environment, in part because it is the owner of Woods Pond dam and therefore there is unlikely to be any dam breach or failure resulting in significant releases of PCBs. EPA does not disagree with GE's assertion that sediment removal sufficient to place a properly designed, constructed, operated and maintained Engineered Cap in perpetuity might achieve the same reductions as this greater PCB removal for certain risks, such as fish consumption, direct contact, and ecological risk in Woods Pond itself. However, this conclusion assumes that such a cap will be achieved and be properly maintained and operated to resist floods and ice-scour in perpetuity and that there is no breach or failure of Woods Pond Dam. In making these arguments, GE discounts the benefits of more effective source control through the permanent reduction in the bioavailability of PCBs to human and ecological receptors through removal. Here the more extensive source control – removal – leads to the twin benefits of risk reduction, including reduction of the risk of downstream transport, and increased long-term effectiveness. In Woods Pond, there is a significant benefit to removal of the large amount of PCBs in the event of breach or failure of Woods Pond Dam.¹²⁴ After all, even with the best intentions and significant resources, it is impossible to guarantee that there will never be a dam breach or failure in perpetuity,¹²⁵ even if GE remains the Dam owner in perpetuity, including unknowns or uncertainties associated with potential climate change. In contrast, removing sediment from behind the dam and disposing of it in a secure landfill guarantees that such sediment cannot be reintroduced into the environment and transported downstream in the event of cap or dam breach or failure. GE simply fails to account for the benefits provided by the finality in risk reductions and source

¹²² This position contradicts its earlier view as set forth in its Revised CMS that the best alternative for Woods Pond was removal of 169,000 CY of sediment. Revised CMS at 28 and table 6-1.

¹²³ This is not to say that other portions of the River do not also require cleanup to address the ongoing risks posed to the River and floodplains.

¹²⁴ Also see EPA SOP III. B.5.

¹²⁵ The PCB contamination caused by the 1992 partial breach of the Rising Pond dam, described further in Section III.A.2.e, is a relevant example.

control related to actually removing 285,000-340,000 CY of PCB-contaminated material from the River.

In its SOP, for the first time,¹²⁶ GE also attempts to discount the value of removing Woods Pond sediment as EPA proposes by suggesting that most of the deeper sediments (more than two feet below the sediment surface) contain PCB concentrations less than 1 mg/kg. Even if most of the deeper concentrations (more than two feet below the sediment surface) are less than 1 mg/kg more than two feet below the sediment surface, which is uncertain,¹²⁷ far higher levels of PCB concentrations are also present more than two feet below the sediment surface. For example, PCB concentrations as high as 273 mg/kg are located from 2 to 2.5 feet deep; as high as 152 mg/kg from 2.5 to 3 feet deep; as high as 21.5 mg/kg from 3 to 3.5 feet deep; and as high as 146 mg/kg from 5.5 to 6 feet deep.¹²⁸ In addition, GE ignores the fact that, according to the data presented in Table 4-10 of GE's RFI Report, approximately 75% of the PCB mass in Woods Pond is contained in sediment from one to six feet deep.¹²⁹ Thus, removing sediment from one to six feet deep beneath the current pond bottom results in the removal of a significant mass of PCBs from the Pond, and thereby reduces future risks of PCBs becoming bioavailable and/or being transported downstream.

In addition, GE exaggerates the downsides of the EPA proposal for Woods Pond, by arguing that other remedies would be almost as good and cost far less. EPA believes that GE's cost discrepancies are inflated. While GE infers a cost difference of approximately \$130 million, EPA believes a more accurate cost difference is likely to be approximately \$80 million.¹³⁰ Regardless of the exact figures, EPA considered the magnitude of any additional cost when evaluating all the relevant factors for its Intended Final Decision.¹³¹

Similarly, GE argues that the benefits provided by a deeply dredged Woods Pond in its capacity to serve as a PCB trapping mechanism to prevent PCB transport downstream are allegedly immaterial. GE acknowledges that the proposed deepening increases the PCB trapping efficiency compared to remedies that do not deepen the Pond. Accordingly, at issue is the significance of the increased trapping. GE's own modeling shows that as a result of the increase in trapping efficiency, the incremental reduction in downstream transport, or flux, over Woods Pond is 0.1 kg/year and over Rising Pond is 0.2 kg/yr. GE SOP at 18. These reductions in flux are significant relative to the Downstream Transport Performance Standards.. If these trapping related reductions were not achieved it would decrease the likelihood of GE achieving the Downstream Transport Performance Standard. Furthermore, the pond and dam have historically been an effective trap as a significant amount of PCB mass

¹²⁶ First, it should be noted that GE's latest proposed remediation is to a depth of only nine inches (in the shallow areas of the Pond only), and GE's comment refers to sediment more than *two* feet below the surface.

¹²⁷ For information on sediment heterogeneity, see 2004 ERA, Appendix D, Sections D.2.4.4 and D.2.4.6 and Model Calibration Report, Appendix B, Pages B.1 to 10.

¹²⁸ Rest of River Site Investigation Data Report.

¹²⁹ GE RFI Report, Table 4-10. In Table 4-10, GE does not present the estimate of the average pounds of PCB mass for each depth interval. The percentage calculated is based on GE's +2 Standard Error estimate.

¹³⁰ If the volume of material is only 285,000 CY as EPA believes, the cost of excavation and disposal will be proportionately reduced compared to 340,000 CY. EPA believes the cost difference between the Intended Final Decision and a GE's proposed shallow remedy in its SOP is around \$80 million.

¹³¹ Even if GE's cost figures and assumptions are accurate, EPA's proposal for Woods Pond would remain the preferred alternative based upon a full evaluation of all the relevant factors, including the objective of eliminating risks related to source control and downstream transport.

has been retained in the pond. Increased trapping combined with future periodic removal of PCB-contaminated sediment from the pond, as required by the Intended Final Decision, at 29-30, will reduce downstream flux of PCBs in two ways. One, removing future sediment accumulation will eliminate the opportunity for PCBs to dissolve off the solids and into the water column, and two, will prevent the PCBs attached to the solids from migrating downstream due to erosional forces and/or dam breaches or failure. Accordingly, the benefits of additional trapping efficiencies favor the Intended Final Decision.

Pursuant to the process set forth in the Decree, EPA considered all public comment on the proposal, including those from GE, Massachusetts, and Connecticut. As stated in its October 27, 2014 letter expressing support for the Proposed Cleanup Plan, the Commonwealth strongly favors the proposed remediation approach to Woods Pond for the reasons identified by EPA. GE suggests that the Commonwealth favors the Intended Final Decision to improve the pond's capacity as a recreational fishery. This is not accurate. While the Commonwealth noted, after summarizing the remediation objectives and benefits of the proposal, that it will also have the *secondary* benefit of enhancing the public's safe, recreational use of the Pond: the latter was not the basis for the Commonwealth's support or a factor in EPA's decision. Statement of Basis; Comparative Analysis. Similarly, GE cites additional truck traffic for deeper removal of PCB contamination from Woods Pond as a negative issue due, in part, to its impact on the community. However, the Commonwealth and, in general, the community support the Intended Final Decision for Woods Pond, including willingness to accept any additional truck traffic for deeper removal of PCB contamination from the Pond, and this support contributes to the implementability of the alternative.¹³²

Finally, the proposal to remove 285,00-340,000 CY of PCB contaminated sediment from Woods Pond cannot be considered in isolation from the other components of the Rest of River response action proposal. In evaluating all the relevant factors for all the relevant components of the Rest of River, including floodplains, vernal pools, individual reaches, EPA considered the totality of the proposal from a holistic perspective. For example, EPA's initial proposal before the National Remedy Review Board included considerably more removal of contaminated PCBs from other portions of the River and floodplains, resulting in the total removal of approximately 1,080,000 CY of contaminated sediment or soil with the approximate cost of \$677 million.¹³³ In contrast, the Intended Final Decision is somewhat less costly overall, and while it includes far less removal from other portions of the River and floodplains, especially Reach 5B, where the reduction is 88,000 CY, it does require the removal of additional PCB contaminated sediment from Woods Pond. The net change represented by the Intended Final Decision involves removal of approximately 90,000 CY less material than originally recommended to the NRRB and a savings of over approximately \$50 million.

Overall, as the Comparative Analysis demonstrates, EPA considered all the relevant factors, and for Woods Pond, proposed an alternative best suited to addressing these criteria based on all the information in the Administrative Record. EPA's decision to remove a

¹³² To the extent that any additional truck traffic contributes to additional greenhouse gas emissions, even if rail cannot be utilized, EPA believes that any negative impacts of such emissions are offset by other relevant factors including the value of removing significant quantities of PCBs from the River.

¹³³ Submittal from EPA Region 1 to NRRB, June 2011, at ES-21.

significant portion of PCB contaminated sediment from Woods Pond and control the sources of PCB releases is a sound decision under the Decree and in the public interest.

c. Reach 7 Impoundments:

Requirements: Reach 7 consists of an approximate 18 mile stretch of free-flowing River interspersed with impoundments behind the Columbia Mill, Eagle Mill, Willow Mill and Glendale dams. GE’s PCB contamination has been deposited in sediment, and is posing unacceptable risks to human health and the environment, at these impoundments (collectively, the “Reach 7 Impoundments”).

EPA’s proposed approach to the Reach 7 Impoundments employs a combination of excavation of contaminated sediment and the placement of an Engineered Cap to isolate the remaining PCBs.¹³⁴ EPA’s proposal also provides GE with significant flexibility in how the PCB contamination is addressed, including excavating sediment to achieve an average of 1 mg/kg PCBs without capping and alternatives in the event of parties seeking removal of one or more Reach 7 dams. In addition, it requires that there be no net loss in flood storage capacity or an increase in water surface elevation.

GE Position: GE argues that EPA’s proposal is unjustified, claiming that a less extensive and less costly remedy can achieve similar results. First, in its SOP, GE primarily focuses on its proposal for thin-layer capping (“TLC”) in the Reach 7 Impoundments, namely the placement of a 6-inch layer of clean material with no removal.¹³⁵ Second, in its 2010 Revised CMS and its 2014 Comments, GE had focused on its proposal for Monitored Natural Recovery (MNR), which uses naturally occurring processes to reduced bioavailability or toxicity, and monitoring of contaminant levels over time, with no current excavation or containment of PCBs.

EPA Position: Neither TLC nor MNR would be suitable for the Reach 7 Impoundments. TLC is different from Engineered Capping.¹³⁶ Engineered Capping reduces risks posed by contaminants by physically isolating the contaminated sediments from human or animal exposure, by chemically isolating the contaminated sediments from being transported up into the water column, and by stabilizing contaminated sediment to protect it from erosion, particularly in high-flow situations.¹³⁷ On the other hand, TLC is not designed to provide long-term isolation of contaminants, but rather is a form of Enhanced Monitored Natural Recovery

¹³⁴ For the flowing subreaches of Reach 7, the Intended Final Decision provides for use of Monitored Natural Recovery. II.B.2.h.

¹³⁵ See GE SOP at 19-20. In its SOP, GE also references that there is more detailed support in Section IV.B.2 of GE’s October 2014 comments on EPA’s Draft RCRA Permit. Section IV.B.2 focuses primarily on MNR being GE’s preferred remedy for the Reach 7 Impoundments. Also, SED 10, which GE identified as the remedy that best meets the Permit criteria in its 2010 Revised CMS, calls for MNR in these impoundments.

¹³⁶ Engineered Capping is discussed below in Section III.A.2.f of this Statement of Position.

¹³⁷ See EPA’s Contaminated Sediment Remediation Guidance at Section 5.1, December 2005,

- there was concern that GE’s proposed bioturbation layer cannot also serve as the key component of the chemical isolation layer;
- GE’s proposed 6-inch cap includes a 2-inch mixing layer and a 4 inch bioturbation layer, but no specific chemical isolation layer;
- a separate isolation layer of 7-9 inches is needed to ensure cap effectiveness.
- there are areas where the conceptual design is not appropriately conservative,
- concerns over improper evaluation of habitat layer restoration;¹⁶⁶
- focusing attention on the need for additional design-level data prior to making a decision, such as: erosional forces issues need to be evaluated in Woods Pond and other areas with significant fetch; site-specific data be collected prior to final cap design; and GE’s use of average velocities over large-scale areas underestimates the erosional forces.¹⁶⁷

Those third party concerns reinforce EPA’s judgment that the design of Engineered Caps at the Rest of River should be undertaken during the remedial design process, unbiased by preconceived notions of particular target thicknesses.

EPA has long recognized the significance of cap thickness to the amount of removal of contaminated soils and sediments, and the resulting impact on disposal costs. To reiterate EPA’s 2012 Status Report, EPA expects that during remedial design GE will seek to optimize cap design to reduce the amount of PCB-contaminated material that requires disposal. Anticipating that scenario, EPA’s Engineered Cap Performance Standards represent a reasonable technical approach to ensure that the eventual design, construction and operation of the caps is protective of human health and the environment. It avoids potentially biasing the design and affords GE the opportunity to propose, subject to EPA approval, a cap design consistent with the Engineered Cap Performance Standards.

g. Off-Site Disposal

Requirement: The Intended Final Decision requires that GE dispose of all sediment and soil removed as part of the remedy at licensed off-site disposal facilities.

GE Position: GE argues that the requirement violates the Decree and is unlawful because it would cost more than on-site disposal and would be no more protective of human health and the environment.

EPA Position: For the Rest of River, off-site disposal is more protective of human health and the environment for several reasons, and is less costly than other alternatives considered and rejected by EPA. It is a sound decision under the Decree, was developed according to the process set forth in the Decree, and is based upon an analysis of the relevant

¹⁶⁶ May 31, 2013, EPA, “Initial Review of GE’s Conceptual Design”, summarizing reviews from U.S. Army Corps of Engineers, Paul Schroeder and Trudy Estes, ERDC; University of Texas, Dr. Danny Reible; EPA (Region 1 and OSWER/OSRTI).

¹⁶⁷ *Id.*

criteria and the administrative record. For example, without limitation, (1) permanent on-site disposal at one of GE's preferred locations would not meet TSCA landfill siting requirements and/or require waiver of ARARs designed to protect wetland habitat and/or an ACEC; (2) unlike on-site disposal, off-site disposal does not entail the potential siting of a new landfill in an area that may not meet all the suitability requirements for such a landfill, such as proximity to drinking water sources, hydrology, and soil permeability; (3) on-site disposal would require the creation of a new landfill in an area with no known contamination whereas off-site disposal will place contamination in a pre-existing area licensed to accept hazardous substances; (4) on-site disposal faces significant state and local opposition that threatens the implementation of the remedy; and (5) while off-site disposal is more expensive than on-site disposal, it is less expensive than other alternatives requiring the treatment of contamination. In sum, based on EPA's review of the relevant criteria and the Administrative Record, off-site disposal is best suited to meet the general standards outlined in the Permit, in consideration of the Permit's decision factors, including a balancing of those factors against one another.

i. EPA's selection of off-site disposal is supported by the nine permit criteria and the administrative record.

GE claims that EPA concedes that off-site disposal would be no more protective to human health and the environment than on-site disposal. GE SOP at 6. On the contrary, EPA does favor off-site disposal in terms of protectiveness. In addition, and even more significantly, GE treats cost and protectiveness as the sole criteria for decision-making, when they are only two of the nine Permit criteria that EPA evaluated. When viewed in that context, off-site disposal is clearly the best suited disposal option.

One of the Permit factors EPA considered in selecting the remedy is its implementability, including coordination with other agencies, regulatory and zoning restrictions, and availability of suitable facilities. Long-standing and active opposition to on-site disposal threatens the Rest of River remedy with lengthy litigation and community resistance. By proposing off-site disposal, EPA avoids these road-blocks, rendering the entire remedy more likely to be promptly implemented and in that respect more protective of human health and the environment. EPA acted in a manner consistent with the Decree in considering public and governmental objections to on-site disposal because these objections are relevant to the implementability criterion listed in the Permit. In addition, the Decree allows EPA to consider any relevant evidence in the administrative record, including the overwhelming number of public comments opposing on-site disposal. Moreover, the Decree offers multiple public participation opportunities, and these would be meaningless if EPA could not consider the views of the public in remedy selection.

Apart from implementability, EPA also considered the other relevant Permit criteria, including cost. For example, in evaluating long-term reliability and effectiveness, EPA evaluated the suitability of the proposed on-site landfill locations, considering the fact that GE did not establish that the proposed locations were suitable in light of soil permeability, hydrology, and proximity to potential drinking water sources and the Housatonic River. Similarly, EPA recognized that the Woods Pond and Forest Street locations would require the waiver of ARARs designed to protect an ACEC and/or wetlands habitat. EPA further considered the suitability of a pre-existing licensed off-site disposal location in comparison

with creating a new on-site landfill and potentially disturbing the habitat in an area with no known contamination. EPA also considered disposal alternatives that might have reduced PCB mobility, volume, or toxicity -- one of the nine criteria -- but these treatment alternatives were more expensive than off-site disposal and were rejected. Overall, EPA determined that off-site disposal is the best alternative under the relevant criteria because it will provide improved implementability, increased long-term reliability and effectiveness, compliance with ARARs, and be more protective of human health and the environment. Collectively these benefits outweigh off-site disposal's higher cost and the increased short-term impacts from the remedy.

ii. EPA's consideration of public and state opposition was well within the legal framework for the remedy selection process.

GE argues that EPA's off-site disposal requirement "conflicts with the Consent Decree's remedy selection criteria and is unlawful." In fact, EPA appropriately considered public and government opposition to on-site disposal. First, the text of the Decree and Permit authorize EPA to consider public and State views in evaluating alternatives, and second, the community and State views are a significant part of the Administrative Record that the Permit directs EPA to consider.

a. Consideration of Public and State Views Fits Squarely within the Permit Criteria

EPA's consideration of public or governmental comment is supported by the Permit and Decree. The procedures outlined within those documents encompass consideration of community, local government, and state views. The Permit directs GE to consider each remedial alternative according to nine criteria that provide the standards for corrective measures.

Within the nine criteria set forth in the Permit, it is permissible to consider state and local opposition because they fall within the "implementability" criterion, Permit Section II.G.2.e. GE argues that EPA is reading state and community opposition into the "implementability" remedy selection criterion. But to implement means to "put into effect," or "to carry out."¹⁶⁸ The public and legal opposition to on-site disposal is squarely within the plain meaning of the term "implementability" because it will jeopardize EPA and GE's ability to carry out the entire remedy.

Those who oppose on-site disposal have several mechanisms to severely delay or block implementation of the remedy. The Decree itself recognizes the Commonwealth's right to appeal the remedy pursuant to 40 C.F.R. § 124.19 before the EAB and Section 7006(b) of RCRA before the 1st Circuit.¹⁶⁹ But the Commonwealth is not the only party with this right. In fact, any party that commented on the draft permit or participated in a public hearing on the draft permit may petition for review of the permit before the EAB. 40 C.F.R. § 124.19. Similarly, under Section 7006(b) of RCRA, "any interested person" may seek review of a permit modification under the Administrative Procedures Act in the relevant Circuit Court of Appeals. Even after these appeals were exhausted, the Commonwealth or local governments could pass new legislation or regulations to bar on-site disposal, which may have to be defeated through litigation before the remedy could proceed.

¹⁶⁸ Pocket Oxford American Dictionary and Thesaurus, Third Ed., 2010, at 403.

¹⁶⁹ Decree Paragraph 22.bb.

EPA’s reading of the term “implementability” is further informed by several of the subsections listed in the permit under implementability. Subsection 6, “coordination with other agencies,” would include the many comments from Massachusetts agencies, and local municipalities and towns opposing a local landfill. The ACEC designation and the solid and hazardous waste site restrictions fall within Subsection 3, “regulatory and zoning restrictions.” Finally, public and governmental opposition bears upon Subsection 7, the availability of “suitable on-site or off-site treatment, storage, and disposal facilities and specialists,” because if all on-site landfills are strongly opposed by the community, the suitability of those sites is compromised.

EPA’s interpretation of the nine permit criteria takes into account its CERCLA and RCRA guidance documents. These guidance documents call for EPA to consider state and local acceptance in remedy selection. The National Contingency Plan, which is the set of regulations governing Superfund cleanups, includes “state and community acceptance” as “modifying criteria that shall be considered in remedy selection.”¹⁷⁰ In accordance with this regulation, EPA’s Superfund Community Involvement Handbook notes “The agency may alter the preferred alternative or shift from the preferred alternative to another if public comments or additional data indicate that these modifications are warranted.”¹⁷¹

As in CERCLA, EPA’s regulations for issuing RCRA permits (along with other types of permits) require public comment and public hearing opportunities on draft permits, allowing EPA to alter the final permit in response to public views.¹⁷² EPA’s RCRA Public Participation Manual states, “Public participation plays an integral role in the RCRA permitting process.”¹⁷³ A guidance document for RCRA corrective action decision documents notes that the response to comments accompanying the final permit decision should include any changes made to the proposed remedy due to public comments.¹⁷⁴

b. *GE Overstates Potential Limit on Consideration of Community and State Concerns*

As shown above, the Permit criteria explicitly support the consideration of public and State views. Beyond that, even if the Permit criteria did not do so, the Permit does not limit EPA to these criteria in selecting its remedy. When EPA is selecting the corrective measures and performance standards for the Rest of River, the Permit directs EPA to consider the submissions from GE, such as the nine criteria analysis in the Corrective Measures Study report, along with “any other relevant information in the Administrative Record for the modification of this Permit.”¹⁷⁵

Public and governmental comments, minutes of the Citizens Coordinating Council, and other information relating to the many public engagement sessions sponsored by EPA are within the Administrative Record for the modification of the Permit. The Administrative Record also includes EPA regulations and guidance documents, including guidance documents for selection of CERCLA remedies and RCRA corrective actions. As explained below, these

¹⁷⁰ 40 C.F.R. § 300.430(f)(1)(i)(C).

¹⁷¹ USEPA, Superfund Community Involvement Handbook, April 2005 at 36.

¹⁷² 40 C.F.R. §§ 124.10 through 124.14.

¹⁷³ 1996 Edition, at 2-1.

¹⁷⁴ US EPA, 1991, Guidance on RCRA Corrective Action Decision Documents.

¹⁷⁵ Permit Section II.J.

guidance documents call for consideration of community and state acceptance in remedy selection.¹⁷⁶

The Decree envisions active public and state participation in the remedy selection process. This public participation would be empty if, as GE asserts, EPA cannot consider the wishes of the community in remedy selection. For instance, Decree Paragraph 22.n calls for EPA to propose the draft permit modification pursuant to EPA’s RCRA regulations, “including the provisions requiring public notice and an opportunity for public comment . . .” Similarly, Paragraphs 22.j and 22.k require GE to submit a CMS Proposal and CMS Report to Massachusetts and Connecticut. Comment periods and opportunities for coordination with the states would be meaningless if public and state opinions were irrelevant to remedy selection. EPA’s consideration of public or governmental comment is required by the Decree and Permit and the procedures outlined within those documents encompass consideration of community, local government and state views.

Additional support for the need for state and community concerns to be considered comes from EPA’s 1996 RCRA Advanced Notice of Preliminary Rulemaking (“Notice”).¹⁷⁷ At that time, EPA’s national RCRA corrective action program championed strong public participation at the same time as proposing use nationally of Corrective Action Permit criteria similar to those being used in the Rest of River permit. The 1996 Notice stated that “EPA is committed to providing meaningful public participation in all aspects of the RCRA program, including RCRA corrective action” and that among EPA’s key goals and implementation strategies for corrective action was to “Continue to involve the public in all stages of the corrective action process.”¹⁷⁸ In that same Notice, EPA proposed to implement RCRA corrective action remedy selection through use of ten remedy selection criteria, none of which were Community Acceptance or State Acceptance.

Admittedly, the Permit does not explicitly list public and state acceptance as individual stand-alone remedy selection criteria. Nonetheless, the Permit’s detailed description of the Implementability criterion, such as its specific subsections on coordination with other agencies, regulatory and zoning restrictions, and availability of suitable on-site or off-site treatment, storage, and disposal facilities and specialists, clearly is meant to accommodate public and State views. Moreover, to interpret the nine criteria otherwise leads to a result totally inconsistent with EPA guidance, the clear direction of the Decree, and RCRA and CERCLA desire for public participation. Moreover, it cannot be considered arbitrary for EPA to follow its own RCRA and CERCLA guidance in interpreting the permit criteria, and to follow the Permit direction to factor in any relevant information in the Administrative Record, in selecting the remedy. If GE intended for EPA to depart from this longstanding EPA practice codified in EPA’s RCRA and CERCLA regulations, GE should have negotiated for an explicit prohibition in the Decree or Permit, but there is no prohibition in these documents. In short, far from being “arbitrary,” EPA’s decision to consider public and state views on the disposal alternatives was

¹⁷⁶ The National Contingency Plan includes “state and community acceptance” as modifying criteria. 40 C.F.R. § 300.430(f)(1)(i)(C).

¹⁷⁷ The negotiations on the Decree and Appendix G, the RCRA Corrective Action Permit, began in 1998, and the Decree was lodged in U.S. District Court in 1999.

¹⁷⁸ 61 Fed. Reg. 19432.

authorized by the text of the Decree, CERCLA’s regulations, RCRA guidance, and overall EPA policy.

iii. Opposition to a new local PCB landfill has been persistent and vigorous.

GE stands alone in its advocacy of on-site disposal. Local communities and governments strongly oppose on-site disposal of PCB-contaminated material in Berkshire County. EPA has encountered this opposition from numerous Berkshire County residents, community groups, municipalities along the Housatonic, and from Massachusetts government agencies. Many residents worry about the risks posed by a PCB landfill in Berkshire County, and public opposition only intensified after GE’s disposal of PCBs at the “Hill 78” landfill near a Pittsfield elementary school. Community groups have historically taken legal action to contest EPA’s choices related to the cleanup. Citizens nominated, and the Commonwealth designated, the Upper Housatonic as a protected area, which activated a state prohibition on permanent landfills. EPA has encountered similar levels of resistance in other site cleanups across the country; such intense public and governmental opposition to on-site disposal threatens to delay and/or altogether block completion of the Rest of River Remedial Action. Berkshire County residents have expressed their objections to siting a new PCB landfill in their community in hundreds of public comments, protests at public meetings, and letters to newspaper editors over the last decade. For example, residents submitted comments to EPA identifying this widespread sentiment, saying that creating a landfill in Berkshire County “is unacceptable to the people of this county,”¹⁷⁹ And “will not be tolerated by its populace.”¹⁸⁰

A common theme among commenters has been a concern about the ongoing negative environmental effect of a dump or landfill in Berkshire County, which has already endured decades of impacts from GE’s contamination. The Planning Board for the town of Great Barrington wrote that it “believes that there is tremendous potential for serious and long-lasting environmental and economic damage to the Town of Great Barrington if this [PCB landfill] is forced on the Town.”¹⁸¹ Tim Gray, Executive Director of the Housatonic River Initiative, wrote, “Toxic hazardous waste dumps will be dangerous to residents, [affect] property values, and be terrible for our tourism industry.”¹⁸² Ann Gallo asked pointedly, “GE continues to be unaware of, or are deliberately overlooking the impact of their thoughtless, offensive choices. [...] Why, yet again, do they leave behind their waste on a struggling county?”¹⁸³

In some cases, public comments were informed by the Hill 78 controversy. As part of the non-Rest of River cleanup, the Decree allowed GE to use a pre-existing landfill located on the former GE facility to dispose of soil and sediment excavated in remediating the Site. This historic landfill, called “Hill 78,” was across the street from Allendale Elementary School. Residents turned out in force to voice their concerns about placement of additional material at Hill 78. Nearly 85 residents attended a public meeting at the Allendale School¹⁸⁴ Community

¹⁷⁹ Comment from Jeffrey Leppo, M.D. to US EPA (Apr. 10, 2008), SDMS 289634.

¹⁸⁰ Comment from John Messerschmitt to US EPA (Apr. 9, 2008), SDMS 289634.

¹⁸¹ Comment from Town of Great Barrington Planning Board to US EPA (Jan. 29, 2011), SDMS 477441.

¹⁸² Comment from Tim Gray to US EPA (Jan. 30, 2011). SDMS 477441.

¹⁸³ Comment from Ann Gallo to US EPA (Dec. 4, 2010), SDMS 477441.

¹⁸⁴ Jack Dew, *PCB Dump Looms Over Allendale Elementary School*, Berkshire Eagle, Oct. 23, 2005. Dew describes the scene at this meeting: “Dozens raised their hands and several shouted questions, asking ‘Would you let your children play here?’ ‘Would you live next to the dump?’”

groups arranged independent testing of the school’s air filters.¹⁸⁵ All 11 Pittsfield pediatricians signed a letter to the Pittsfield mayor noting concern over airborne PCBs reaching Allendale students from Hill 78 disposal activities and stating, “We urge the community to aggressively pursue options that will further reduce or eliminate the risk to our children.”¹⁸⁶

The “Hill 78” controversy galvanized citizens to oppose any future PCB landfills in the region. For instance, William and Christine Coan, Pittsfield residents, “strongly urge[d]” EPA to oppose an upland disposal facility in Berkshire County: “In light of the community uproar generated by the disposal dump located behind Allendale School in Pittsfield, we would suggest that the project would be delayed for years as communities utilized all political and legal means available to keep such a dump out of Berkshire County.”¹⁸⁷ Similarly, Peter Lafayette wrote that he has “fierce opposition to GE’s proposal to create another toxic landfill in Pittsfield or Berkshire County. The recently created Hill 78 contains PCB waste and has become a battleground for residents. To suggest that another PCB landfill is to be considered for Pittsfield or Berkshire County is outrageous.”¹⁸⁸

Massachusetts has also declared vigorous disapproval of a new local landfill in public comments and meetings with EPA officials. From 2007 through 2014, EPA received comments from seven offices within the Commonwealth of Massachusetts, including the Departments of Fish and Game, Environmental Protection, Conservation and Recreation, and Public Health, advocating against disposal within Massachusetts. For example, the Commissioners of three Commonwealth offices wrote that “[t]he Commonwealth vigorously opposes two disposal options outlined in the revised CMS that call for disposal of removed material to be sited within Berkshire County” because:

Installation of a disposal facility in Berkshire County would also have extremely negative impacts to the communities surrounding the facility including economic aesthetic, recreational, and potential health impacts should the facility fail. Further, construction of yet another such facility just expands the number of locations that would be affected by PCB-contamination, requiring additional long-term monitoring, operation and management beyond what is already a long-term burden on the community, and which runs counter to the concept of the anti-degradation provisions incorporated into the Massachusetts site cleanup regulations.¹⁸⁹

In addition, every Berkshire city or town along the Housatonic (Pittsfield, Lee, Lenox, Stockbridge, Great Barrington, Sheffield, and Tyringham) submitted at least one comment against any additional landfills. For instance, the chair of the Lenox Board of Selectmen wrote: “We find it unacceptable that there could be a new, permanent hazardous waste landfill constructed in our community. We wish to state in very clear terms that such a facility will be vigorously opposed.”¹⁹⁰ In 2008, Pittsfield’s city council unanimously passed a resolution

¹⁸⁵ Jack Dew, *Allendale Parents Upset at Agencies over PCBs*, Berkshire Eagle, Jan. 22, 2006.

¹⁸⁶ Letter from Siobhan McNally, M.D. *et. al.* to Mayor James Ruberto (May 1, 2006).

¹⁸⁷ Comment from William and Christine Coan to US EPA, (Apr. 3, 2008).

¹⁸⁸ Comment from Peter Lafayette to US EPA, (Apr. 8, 2008).

¹⁸⁹ Letter from Richard Sullivan, Secretary of the Massachusetts Executive Office of Environmental Affairs, et al, to US EPA (Jan. 31, 2011).

¹⁹⁰ Letter from Stephen Pavlosky, Chair Lenox Board of Selectmen, to US EPA (May 15, 2008).

stating its opposition to any upland disposal facility for dredged sediments in the city of Pittsfield or Berkshire County.¹⁹¹

In addition to voicing disapproval, the Commonwealth and public have taken action to protect the unique ecosystem of the Upper Housatonic. For example, 43 community members, including several members of the Massachusetts legislature, nominated the Upper Housatonic for designation as an ACEC, in 2008.¹⁹² Nearly 1000 area residents signed petitions supporting this nomination.¹⁹³ In response, the Secretary of the Executive Office of Energy and Environmental Affairs designated the Upper Housatonic River as an ACEC in March 2009.¹⁹⁴ This designation automatically activated State-wide environmental protections provided for ACECs to the 13-mile corridor of riverbed, riverbank, floodplain and riverfront land running from Pittsfield to Lee, including the prohibition of siting permanent Solid Waste facilities within or adjacent to ACECs.¹⁹⁵ The Commonwealth later amended its statewide Hazardous Waste Facility Location Standards to prohibit permanent hazardous waste facilities in or adjacent to any ACEC in the Commonwealth.¹⁹⁶

Several community advocacy groups and the Schaghticoke Nation have sought to shape the Housatonic River remedy, and have opposed on-site disposal. A Citizens Coordinating Council has been meeting since 1998, with participation from groups including Mass Audubon, Berkshire Natural Resources Council, and the Schaghticoke Nation. A community group called the Housatonic River Initiative has sponsored “No More Dumps” conferences and meetings for more than five years. Several of the groups have used legal action to oppose EPA’s work at the Site. When EPA moved to enter the Decree in 2000, Housatonic River Initiative, Housatonic Environmental Action League, and the Schaghticoke Nation, among other entities, moved to intervene to overturn the Decree, in part because they opposed the Hill 78 landfill.¹⁹⁷

EPA’s experience at other sites lends credence to its fear that opposition to on-site disposal at the Housatonic will bar completion or timely completion of the remedy. In Bloomington, Indiana, a 1985 consent decree called for the construction of an incinerator to treat the PCB wastes from six area Superfund sites, all contaminated by Westinghouse industrial activities.¹⁹⁸ The public opposed the consent decree but it was entered despite this

¹⁹¹ *Politicians Vow to Fight Second PCB Dump*, Pittsfield Gazette, Apr. 10, 2008.

¹⁹² Commonwealth of Massachusetts, Designation of the Upper Housatonic River Area of Critical Environmental Concern, March 30, 2009 (“March 2009 ACEC Designation”).

¹⁹³ March 2009 ACEC Designation.

¹⁹⁴ March 2009 ACEC Designation.

¹⁹⁵ *Id.*

¹⁹⁶ 310 CMR 30.708; also see Proposed Action on Regulations, July 19, 2013; and Regulations Filed with the Secretary of State, Dec. 20, 2013, Massachusetts Register Number 1250. In addition to the normal public hearings on changes to MADEP Regulations at MADEP regional offices, two additional public hearings were arranged for Lenox and Pittsfield. This regulation applies specifically to facilities that manage wastes containing PCBs at concentrations at or above 50 ppm. A potential waiver of these regulations is discussed *infra* at Section C.

¹⁹⁷ Memorandum by Housatonic River Initiative in support of Motion to Intervene, Dkt. No. 20, Feb. 29, 2000; Memorandum by Housatonic Environmental Action League and Schaghticoke Nation in support of Motion to Intervene, Dkt. No. 77, May 19, 2000. Housatonic River Initiative eventually withdrew its Motion to Intervene after it reached a settlement with the US.

¹⁹⁸ *United States v. Westinghouse Electric Corp. et al*, Civ. Action No. IP83-9-C and IP 81-488-C (S.D. Ind. 1985).

opposition in 1985. At that point, the public successfully lobbied the Indiana legislature to pass laws that delayed construction of the incinerator, in part by forbidding local disposal of the incinerator ash. In 1994 the parties to the decree began to explore alternative remedies. Consent decree amendments memorializing agreements for alternative remedies were entered in 1997, 1998, 1999, and 2008. In the end, cleanup was delayed for over a decade.

Similarly, in New Bedford, Massachusetts, a 1990 Record of Decision selected dredging, on-site incineration, and on-site disposal of incinerator ash for the PCB hotspot in New Bedford Harbor.¹⁹⁹ In response to strong local opposition including a letter-writing campaign and other community activism, in 1993 New Bedford passed a city ordinance banning transportation of the incinerator within city limits in an attempt to prevent the cleanup. Congressional involvement from Representative Barney Frank, Senator John Kerry, and Senator Ted Kennedy, as well as the Massachusetts Department of Environmental Protection convinced then EPA administrator Carol Browner to direct EPA Region 1 to plan a new remedy with community support.²⁰⁰ The new remedy, selected in a 1999 ROD amendment, included dredging and off-site disposal of hot spot sediments without incineration.²⁰¹ In the end, cleanup of this most contaminated area of New Bedford harbor was delayed for nine years.

Having learned from these experiences, EPA takes community opposition seriously in its remedy selection process. In part due to strong public opposition, EPA has chosen off-site disposal at some of the nation's largest PCB-contaminated sediment sites, such as the Hudson River site. There, more than 2.7 million cubic yards of contaminated sediment have already been disposed off-site.²⁰² EPA has proposed off-site disposal for the anticipated 4.3 million cubic yards of contaminated soil and sediment at the Passaic River Diamond Alkali Site after the public and state of New Jersey expressed opposition to on-site confined aquatic disposal.²⁰³ And at the Lower Fox River site, more than 3.6 million cubic yards of dredged sediments were disposed at off-site licensed and regulated landfills.²⁰⁴ Taken together, the volume of sediments disposed off-site at these three sites alone exceed the volume of sediments disposed on-site at other sites around the country.²⁰⁵

¹⁹⁹ US EPA, Record of Decision Amendment, New Bedford Harbor Site, Hotspot OU, at 4-7, Apr. 27, 1999.

²⁰⁰ Troy W. Hartley, How Citizens Learn and Use Scientific and Technical Information in Environmental Decision Making, 10 J. of Higher Ed. Outreach and Engagement, 153, 159-161 (2005).

²⁰¹ US EPA, Record of Decision Amendment, New Bedford Harbor Site, Hotspot OU, Apr. 27, 1999.

²⁰² Telephone Interview with Michael Cheplowitz, EPA Remedial Project Manager (August 2015); EPA First Five Year Review for Hudson River PCBs Superfund Site, June 1, 2012.

²⁰³ Telephone Interviews with Alice Yeh, EPA Remedial Project Manager (August 2015 and January 2016); EPA Proposed Plan for Lower Eight Miles of the Lower Passaic River, Part of the Diamond Alkali Superfund Site, April 2014; Letter from Bob Martin, Commissioner of New Jersey Department of Environmental Protection, to Amy Legare, National Remedy Review Board Chair, Dec. 6, 2012.

²⁰⁴ Telephone Interview with Jim Hahnenberg, EPA Remedial Project Manager (August 2015); Telephone Interview with Susan Pastor, EPA Community Involvement Coordinator (January 2016); Five Year Review Report for Fox River NRDA/PCB Releases Superfund Site, July 17, 2014.

²⁰⁵ Based on the volume of on-site sediment disposal identified in Exhibit A to GE's Statement of Position.

iv. EPA evaluated all the relevant remedy selection factors, not just the factors related to implementability, in proposing off-site disposal.

It should be understood that EPA considered all the relevant remedy selection factors in proposing off-site disposal, not just the factors related to implementability. For example, EPA considered factors related to cost, protectiveness, control of sources, short-term impacts, compliance with ARARs, and the long-term reliability and effectiveness of GE's proposed upland disposal locations. These points are discussed below.

In EPA's view, GE's proposed upland disposal facilities may be less effective at containing waste than an off-site disposal facility, because the locations selected by GE do not meet TSCA's siting requirements for PCB landfills.²⁰⁶ GE admits this.²⁰⁷ For instance, GE acknowledges that none of the three proposed landfill sites meet TSCA's requirements for soil characteristics including permeability²⁰⁸. Even more troubling, it notes that none of the three sites meet all of TSCA's requirements for a landfill site's hydrological characteristics, all three sites are located within close proximity to the Housatonic River.²⁰⁹ By contrast TSCA requires that the bottom of the landfill liner be more than 50 feet above the historical high water table, that groundwater recharge areas be avoided, and that there is no hydraulic connection between the site and a surface waterbody.²¹⁰ Similarly, the Forest Street Site would not meet the TSCA requirement that a landfill be located in a relatively flat area to minimize erosion or landslides.²¹¹

These TSCA criteria are meant to be protective of human health and the environment in the event of leaks or failure in the landfill technology. As explained in EPA's Statement of Basis, "there is the potential for PCB releases to the Housatonic watershed if the landfills are not properly operated, monitored and maintained." Statement of Basis at 36. Moreover, the potential extended duration of the operation of the proposed on-site landfills, given the range of sediment and soil volumes at issue here and the length of remedy implementation, likely necessitates that the proposed on-site facilities operate for an extended period of time.²¹² These factors increase the risks of potential future releases to the Housatonic watershed, compounded by the poor suitability of the proposed locations given such factors as soil permeability, proximity to the Housatonic watershed, and/or drinking water sources. Accordingly, use of on-site landfills would "rel[y] heavily on proper long-term operation, maintenance, and monitoring activities."²¹³

By contrast, an off-site disposal facility would pose no risk of release to the Housatonic watershed, would be fully licensed and regulated under TSCA and/or other applicable federal and state requirements. Such facilities are generally constructed in the area best suited to that use considering the hydrology and soil characteristics. Here, GE has not been able to identify any on-site locations that would meet the TSCA PCB landfill siting requirements. In addition,

²⁰⁶ 40 CFR § 761.75(b)(1).

²⁰⁷ GE's Revised CMS at 9-48 to 9-49.

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ 40 CFR § 761.75(b)(3).

²¹¹ GE's Revised CMS at 9-49.

²¹² Comparative Analysis at 64.

²¹³ Comparative Analysis at 65.

an off-site disposal landfill will already contain hazardous substances whereas none of the proposed locations identified by GE are known to be contaminated, making them a less suitable alternative.

Compliance with ARARs is also one of the nine criteria, in fact one of the three general standards to be met in a remedy decision. EPA can waive ARARs only under certain specific circumstances, including where compliance is technically impracticable. GE claims that it is arbitrary for EPA to waive ARARs in situations involving the *temporary* storage of hazardous substances on-site but not to do so for the creation of permanent on-site landfills. However, the two situations are not analogous as discussed below.

Excavated PCB-contaminated sediments and soils will likely need to be temporarily stored on-site while awaiting transport to an off-site facility. In terms of temporary storage on-site, under some scenarios, as described more fully in Attachment C to the Intended Final Decision²¹⁴ off-site disposal may require a waiver of the Massachusetts regulations that prevent hazardous and solid waste facilities within ACECs, in order to implement the remedy and allow *temporary* storage areas where the waste would be prepared for long distance transport. As discussed in more detail below in Section III.D.7. of this Statement of Position, if those conditions occur and the regulations are applicable to temporary storage, a waiver for temporary storage is appropriate because it is technically impracticable to perform the remedy without temporary stockpiling. All alternatives for disposal and transport of the dredged sediments involve temporary storage. These waivers for temporary storage would not defeat the purpose of the waste facility siting regulations because the storage areas will not result in a permanent landfill, and EPA has established Restoration Performance Standards to ensure the temporarily-used storage areas are restored effectively.

In contrast, permanent on-site disposal at GE's Woods Pond landfill location would require waivers of these waste facility siting regulations because that location is within the ACEC and GE is seeking to place a permanent landfill there. Because the Forest Street landfill location is within a regulated wetland area a waiver may also be required of regulations or requirements designed to protect such areas including: EPA's and the Corps of Engineers' regulations under Section 404 of the Clean Water Act (40 CFR Part 230, 33 CFR Parts 320-323); the federal Executive Order for Wetlands Protection (E.O. 11990); the Massachusetts water quality certification regulations for discharges of dredged or fill material into waters of the U.S. (314 CMR 9.06); and the Massachusetts Wetlands Protection Act regulations (310 CMR 10.53(3)(q)). Likewise, the Rising Pond landfill abuts 25 acres of Priority Habitat for the state-listed Wood Turtle. As a result, further confirmation would be needed to conclude if there are any effects on priority habitat of rare species in the operational area of the landfill, and depending on the significance of such effects, compliance with, or a waiver of, the Massachusetts Endangered Species Act would be required. As another example, GE's proposed sites may not meet the potentially applicable Massachusetts hazardous waste landfill siting criteria, namely its prohibition on siting disposal facilities within 1000 feet of an existing private drinking water well. 310 CMR 30.704, 703(4) 30.010. The Woods Pond location is within 1000 feet of a drinking water well. GE did not investigate whether the other locations were within 1000 feet of drinking water wells.

²¹⁴ Intended Final Decision, Attachment C, at pages 11-12.

Since off-site disposal is a practicable alternative, technical impracticability does not provide a basis for these waivers, and there is no other valid basis for a waiver. Furthermore, Massachusetts would likely challenge all waivers related to on-site disposal under CERCLA Section 121(f)(2)(B), as authorized by Decree paragraph 22.bb.i.. During this challenge, the revised permit is stayed, causing significant delay. Decree paragraph 22.bb.ii. All-in-all, the numerous ARAR waivers required by on-site disposal, and the associated implementability challenge associated with Commonwealth appeals of those waivers, weigh against selecting on-site disposal under the nine criteria analysis based on the administrative record.

GE objects to the added cost of approximately \$200 to \$300 million associated with off-site disposal compared to on-site disposal, depending on the assumed location of the landfill, the transport method for off-site disposal and the rates charged by an off-site landfill at the time of disposal. However, GE fails to recognize that EPA also considered alternative options involving treatment of PCB contamination. While these alternatives included positive aspects such as controlling sources of releases and reduction of toxicity of the contamination – two of the nine Permit criteria -- these treatment alternatives are more costly than off-site disposal, and were rejected. In other words, EPA has hardly selected the most expensive or the most aggressive remedy under consideration.

GE notes that some of the short term impacts from the disposal process itself, namely transporting the waste, are likely to be somewhat higher for off-site disposal. There will be higher greenhouse gas emissions from long-distance transport, and statistics suggest that there could be an increase in injuries or fatalities from traffic accidents. However, GE fails to observe that EPA’s modified permit includes a preference for rail transport, which will mitigate greenhouse gases as compared to truck transport.

In addition, community impacts of truck traffic will probably be lower for off-site disposal as compared to on-site disposal for two of the three potential on-site disposal facilities (Forest Street and Rising Pond). Only miles driven on local roads (whether on-site or off-site), as opposed to miles driven on major highways such as the Massachusetts Turnpike, should be considered to impact the local community.²¹⁵ As a result, trucks will travel fewer miles on local roads to reach a rail loading facility or the Massachusetts Turnpike, in the off-site disposal scenarios, as opposed to traveling to GE’s more distant landfill locations.²¹⁶ The Forest Street location in particular, is several miles off any main road and would result in traffic through a relatively remote area, over roads that cannot support the loading. Also, as shown in the attached table, the impacts for truck traffic for the Woods Pond on-site disposal

²¹⁵ The “short-term effectiveness” Permit criterion specifically mentions “impacts to nearby communities.” Permit at 22.

²¹⁶ The location of the rail loading facility has not yet been determined, but GE assumed a location immediately upstream of Woods Pond in its 2014 comments. Using this location, EPA estimates local miles traveled under each scenario. The estimated mileage includes estimates for construction of the disposal facilities and transport of waste on local roads:

	Upland Disposal Facility			Off-site by Truck	Off-site by Rail
	Woods Pond	Forest Street	Rising Pond	Travel to Massachusetts Turnpike	Rail loading Facility
EPA Estimate	955,350	4,868,700	3,147,800	1,110,200	860,950

Decree.²¹⁹ GE mischaracterizes EPA’s comments. In fact, EPA noted that containment is the presumptive remedy for *pre-existing landfill* sites, citing guidance that called for containment at municipal landfill sites and military landfills.²²⁰ This guidance is inapplicable to the landfill proposed for the Rest of River, which would not be a pre-existing landfill and would be located in an area with no prior known contamination. EPA has not been able to locate any EPA statement that on-site disposal is the presumptive remedy for large dredged sediment sites. As discussed above, EPA frequently chooses off-site disposal for the sites most similar to the Rest of River, and even used off-site disposal as a component at 11 of the 24 sites identified by GE as examples of on-site disposal.

In sum, EPA was well within its discretion to choose off-site disposal from the range of alternatives given the severe challenges and likely delay associated with implementing a remedy that includes on-site disposal in a potentially unsuitable location, and the resulting inability of the remedy to protect human health and the environment. In considering all the relevant remedy selection factors, the benefits of having an implementable, permanent, compliant remedy acceptable to the community at an established off-site landfill outweigh the higher cost and short-term impacts associated with off-site disposal. EPA evaluated the alternative approaches, and is proposing selection of the alternative best suited to meet the Permit’s General Standards, in consideration of the decision factors, including a balancing of those factors against each other. Ultimately, in proposing to select off-site disposal in an established suitable landfill, EPA has chosen the remedy that is likely to be promptly implemented and protective of human health and the environment, rather than mired in litigation and controversy for years. In doing so, EPA follows the Decree, including the Permit criteria, but it also fulfills its duty to protect the public, and upholds the purpose of CERCLA and RCRA.

B. EPA Selected a Remedy that Provides a Level of Certainty Supported by the Consent Decree, RCRA, and CERCLA.

In this dispute, GE demands a level of detail and certainty that is inconsistent with the Decree and impossible to achieve. Nonetheless GE makes these demands in an effort to reduce its costs, even though the United States has already limited GE’s exposure to future expenses by capping certain categories of response costs for which GE would otherwise be liable. GE’s

²¹⁹ GE SOP, p. 6.

²²⁰ EPA’s specific comment in the Response to Comment is as follows: “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 Municipal Landfill Sites, September 1993 and Agency Directive No. 9355.0-67FS, Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills, December 1996, the presumptive remedy for CERCLA (i.e. Superfund) municipal landfills and military landfills, respectively, is containment.” United States’ Response to Comments on Proposed Consent Decree, July 20, 2000, at 68-69. In the second paragraph that GE cites, EPA writes “In fact, EPA has more recently prescribed contaminant as the presumptive remedy for Superfund municipal landfills, Agency Directive No. 9355.0-49FS, Presumptive Remedy for CERCLA Municipal Landfill Sites, September 1993 and Agency Directive No. 9355.0-67FS, Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills, December 1996.” *Id.*

demand for even greater limitations on future expense unfairly and improperly shifts the risks of uncertainty away from GE, the responsible party, and onto the general public.

GE claims that virtually all its future obligations should be known at the time of selection of the remedy. This demand is not supported by the Decree or the uncertainties related to any future work. While the Administrative Record demonstrates the significant effort by EPA over many years to solicit and consider extensive input from all stakeholders, including GE, to ensure an appropriate remedy for Rest of River, the Decree contains several provisions that specifically recognize that EPA’s chosen corrective measures may nevertheless fail to achieve and maintain Performance Standards. Indeed, the Decree is explicit that there is no guarantee or “warranty or representation of any kind” that the chosen corrective measures will achieve and maintain the Performance Standards. CD ¶ 40.²²¹ Further, if, during implementation of the corrective measures, the work is not achieving and maintaining the Performance Standards, EPA may require GE to incorporate “such modification” to the work that is necessary to achieve and maintain Performance Standards, or to carry out and maintain the effectiveness of the response action. CD ¶ 39.a.²²² Decree Paragraphs 39 and 40 reflect the fundamental principle that no innocent party should bear the risk that selected cleanup measures fail to protect human health and the environment. This principle is codified in CERCLA’s statutory provisions on covenants not to sue, and the limitations and reservations—known as the “reopeners”—for those covenants, 42 U.S.C. § 9622(f), set forth in the reopener provisions of the Decree, CD ¶¶ 162, 163, and mirrored in EPA’s model settlement document. Likewise, there is nothing in the case law that suggests that GE is entitled to the certainty it demands.²²³

²²¹ Paragraph 40 provides:

Nothing in this Consent Decree, the SOW, the Rest of the River SOW, ... constitutes a warranty or representation of any kind by Plaintiffs that compliance with the work requirements set forth in the SOW, the Rest of the River SOW, ... which requirements are not part of or included within the Performance Standards, will achieve the Performance Standards.

²²² Paragraph 39.a. applies to the Rest of the River SOW and provides:

For each Removal or Remedial Action required under this Consent Decree, if EPA determines that modification to the work specified in the ... the Rest of the River SOW, ... is necessary to achieve and maintain the Performance Standards or to carry out and maintain the effectiveness of a particular Removal or Remedial Action, EPA may require that such modification be incorporated in the ... the Rest of the River SOW; provided, however, that a modification may only be required pursuant to this Paragraph to the extent that it is consistent with the scope of the response action for which the modification is required and does not modify the Performance Standards (except as provided in Paragraph 217 (Modification) of this Consent Decree).

In any conflict between Paragraph 39.a. of the Decree and the Permit, the provisions of the Decree control. CD, definition of Consent Decree.

²²³ Cases interpreting CERCLA and RCRA support the conclusion that some uncertainty at the time of remedy selection is acceptable. For example, in *United States v. Hooker Chemicals & Plastics Corp.*, 540 F. Supp. 1067 (W.D.N.Y. 1982), the court upheld the settlement of a RCRA corrective action complaint even though the final remedy had not been selected. The Consent Decree provided that the defendant would conduct sampling, analysis, and then implement the remedy to be chosen based upon this additional information. The court found the approach “wise” in that the “parties have chosen to proceed cautiously.” *Id.* 1073.

Similarly, in *United States v. Akzo Coating*, 719 F. Supp. 571, (E.D. Mich. 1989), the court upheld a CERCLA settlement over objections that the proposed pilot testing was ill-defined and unreliable. *Id.* at 585. The court concluded that

To the extent that GE objects that certain response action obligations are not sufficiently specific, those details will be developed in the next phases of the remedy implementation process through the Rest of River Statement of Work (“SOW”) and Work Plans—phases that occur after remedy selection, and in which GE will be heavily involved. CD ¶ 22.x. In fact, per the Decree, GE negotiated the ability to submit the first draft of the SOW, which is typically done by EPA. CERCLA guidance recognizes that the amount of information that is developed in selecting a remedy need only be set at “a level of detail *appropriate to the site situation.*” (emphasis added).²²⁴ Even the major components of the remedy, including the treatment technologies and/or engineering controls that will be used, as well as any institutional controls, may be presented in “bullet form.”²²⁵ Bullet form is all that is required because, according to EPA guidance:

the ROD is only intended to provide the framework for the transition into the next phase of the remedial process, namely Remedial Design. Remedial Design is the engineering phase during which additional technical information and data identified are incorporated into technical drawings and specifications developed for the subsequent implementation of the remedial action. The specifications in the Remedial Design are based upon the detailed description of the Selected Remedy and the cleanup criteria provided in the ROD.²²⁶

Here, the major components of the selected remedy are described in considerably more detail than “bullet form.” The Decree contemplates that additional details required for the design and implementation of the remedy will be provided during the SOW and Work Plans phases for the Rest of River—and are not required at the remedy selection stage—otherwise there would be no need for Work Plans or the SOW. GE is wrong to claim that, at the remedy selection phase, it is entitled to detail well beyond “bullet form.”

Finally, GE is wrong to suggest that it is entitled to more certainty than is provided in the Intended Final Decision. Although GE may wish that it had struck a different bargain, both

It is legally acceptable to leave aspects of a remedial action plan open for further determination.... Moreover, there are sound justifications for leaving aspects of a remedy open for future determination. The science of remedying and evaluating toxic waste, like all sciences, is constantly evolving. To require the defendants and the EPA to select a remedy if soil flushing proves to be ineffective, without the aid of knowing how the soil conditions have changed, is unreasonable and would preclude the implementation of new methods of clean up that are not yet discovered.

Id. at 585 (emphasis added). The decision was affirmed. 949 F.2d 1409, 1434 (6th Cir. 1991).

²²⁴ National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. § 300.430(f)(5)(i) (emphasis added). “The Agency will then evaluate potential remedies against the five decision factors listed in proposed section 264.525(b), as appropriate to the specific circumstances of the facility.... In practice, the relative weights assigned to these five factors will vary from facility to facility according [sic] the site characteristics....” 55 Fed.Reg. No. 145, 36824-5 (July 27, 1990).

²²⁵ EPA, *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (July 1999), 6-41.

²²⁶ *Id.* At 6-42. Here, the Intended Final Decision is the RCRA equivalent of a CERCLA ROD, and the Decree requires the remedy to be implemented as a CERCLA remedial action. CD ¶¶ 22.p, 22.z.

sides must accept and fulfill their obligations. EPA has already compromised over \$100 million in response costs as a result of the Decree’s limitation on EPA’s right to recover certain categories of capped response costs. EPA negotiated these capped cost categories at GE’s request to limit GE’s uncertainty and exposure to costs. Any further EPA compromise regarding GE’s obligations to clean up of the River is neither required by the Decree nor is it in the public interest.

1. PCB Downstream Transport and Biota Performance Standards

Requirement: The Downstream Transport Performance Standard specifies annual average values for PCB movement, or flux, over Woods Pond Dam and Rising Pond Dam (Section III.B.1.a). The Short-Term Biota Performance Standard sets an average PCB concentration of 1.5 mg/kg in fish fillets to be achieved within 15 years of completion of remedial activities in the applicable reach of the River. (Section III.B.1.b). (For simplicity, the Short-Term Biota Standard is referred to herein as the “Biota Performance Standard” as distinguished from the Long-Term Biota Standard).²²⁷ If the PCB Downstream Transport Performance Standard is exceeded at either dam in three or more years within any five-year period after the completion of Rest of River construction-related activities and/or if the Biota Performance Standard is exceeded in two consecutive monitoring periods after that 15-year period, GE must identify the potential cause(s) of the exceedance and propose additional actions necessary to achieve and maintain the relevant Standard, and EPA will determine any such additional actions in accordance with the Decree.

GE Position: GE generally objects to these Performance Standards on the following grounds: (1) the PCB Downstream Transport Standard is allegedly not related to any perceived risk to human health or the environment; (2) the computer model predicting the effectiveness of the remedy is an insufficiently reliable basis upon which to establish the Standards; and (3) each Standard allegedly exceeds EPA’s Consent Decree and statutory authority.²²⁸

EPA Position: As discussed below in more detail (1) the PCB Downstream Transport Standard is based upon PCB source control, and reducing the risk of ongoing PCB contamination; (2) the computer model has been subject to multiple phases of peer review and evaluation and is supported by the Administrative Record; and (3) each Standard is well within Consent Decree and statutory authority.

a. The Standards are supported by PCB source or risk control objectives.

²²⁷ In its 2014 Comments, GE requested clarification that a failure to achieve and maintain Long-Term Biota Performance Standards requires only monitoring and maintenance of institutional controls. GE Comments at 63. Accordingly, the Intended Final Decision clarifies the obligations regarding Long-Term Biota Performance Standards. Section II.B.1.b.(1)(b). Further, EPA considered GE’s 2014 Comments and concludes the Long-Term Biota Performance Standard for fish fillet in Connecticut remain, based on CT DEEP’s consumption calculations assuming 365 fish meals per year and a 1×10^{-6} cancer risk. Section II.B.1.b. (1)(b). footnote 3.

²²⁸ GE also claims that these Performance Standards are not “proper Performance Standards.” GE SOP at 24 n.28. GE offers no explanation as to why these Performance Standards fail to satisfy the Consent Decree definition of a Performance Standard, which includes “cleanup standards, design standards and other measures and requirements set forth in ...the final modification of the Reissued RCRA Permit to select the Rest of River Remedial Action ...”CD ¶4. These standards clearly set forth clear requirements to promote the remedy’s reduction in risks and control of the source of PCB contamination. That being the case, GE’s claim may be disregarded.

GE claims the PCB Downstream Transport Standard is arbitrary because it is allegedly not related to risk reduction to protect human health and the environment. Yet, one of the General Standards for the remedy is to reduce the bioavailability of PCBs through “control of sources of releases,” Permit II.G.1.b, p. 20. Here the Performance Standard measures the effectiveness of the remedy in achieving this objective by measuring the levels of PCBs transported downstream. PCBs traveling downstream are an uncontrolled source. They are bioavailable to human and ecological receptors and cause recontamination of the floodplains.²²⁹ Therefore the Performance Standard is related to risk reduction because it measures the effectiveness of the remedy in achieving source control objectives. Contrary to GE’s argument, this Standard includes a clear human health or environmental risk-based justification.

b. EPA exercised sound judgment in relying on the model work to develop the Performance Standards.

GE next claims that EPA’s method for developing the PCB Downstream Transport and Biota Performance Standard was faulty because the model was designed to measure the comparative effectiveness of remedies rather than to establish an absolute measure for Performance Standards. GE SOP at 26. EPA’s technical and scientific analysis of the facts, considerations of the model, and other information in the record, however leads to the opposite conclusion – and such EPA conclusions are entitled to deference as discussed below.

First, GE argues that EPA was required to establish the measure of the effectiveness of the remedy “based on an analysis of risk,” and by making a showing “that the specified values [in the measure] are tied to reductions in risk or are otherwise justified under the remedy selection criteria.” GE SOP at 25. Yet nothing in the statutes or Consent Decree prescribes the particular quantitative method by which EPA is to set Performance Standards measuring the effectiveness of the remedy, nor do the statutes or Consent Decree include the hypothetical demands for EPA’s selection of such Performance Standards.²³⁰ To the contrary, the Decree requires EPA to develop the model, subject to multiple stages of peer review, as a first step in evaluating alternatives for cleaning up the River. CD ¶¶ 22.g. h. and i.²³¹ The Decree also requires EPA to set Performance Standards, and does not preclude EPA, in its expert judgment, from relying on the peer-reviewed model – including comments from GE -- to establish Performance Standards. This is all the more true, where EPA has already considered and addressed any valid concerns regarding the model as shown below.

²²⁹ Without question a Performance Standard may be developed to measure the effectiveness of the remedy. Permit definition of Performance Standards.

²³⁰ GE cites to RCRA § 3004(v) and CERCLA §§ 101(24), 121(d)(1) to imply that Performance Standards may only be set after undertaking certain kinds of risk analysis as measured by certain criteria dictated by GE. GE SOP at 25. Yet nothing in these statutory provisions require the use of a particular form of risk analysis or decision making in setting Performance Standards. Further, the Consent Decree grants EPA the authority to set Performance Standards necessary to protect human health and the environment, without the theoretical and hypothetical constraints or limitations GE now demands. CD and Permit definitions of Performance Standards.

²³¹ Pursuant to the Decree, EPA Region 1 retained a consultant, HDR (formerly Hydroqual), to develop the required computer model to analyze the anticipated impact of remedy alternatives on PCB downstream fate and transport, bioaccumulation, and other factors. The model was subject to multiple independent peer reviews, resulting in changes to the model framework.

Specifically, a more stringent Performance Standard for general downstream transport was initially proposed by EPA in its August 2012 response to the National Remedy Review Board comments: namely achieving and maintaining a maximum of 2.0 kg/year PCB flux rate (mass per time) over Woods and Rising Pond Dams. This initial more stringent proposal was based upon the model work, but was ultimately adjusted after EPA and its consultant, HDR evaluated comments received by GE during the 2012/2013 Technical Discussions. In particular, during the Technical Discussions, EPA, CT DEEP, and GE worked together to craft the structure of the Performance Standard presented in the draft permit and now included in the Intended Final Decision. As a result, the approach set forth in the Intended Final Decision now accounts for variation in average annual flows and applies an uncertainty factor to predicted results.²³² Had EPA relied on the absolute values of the model predictions, the Downstream Transport Standard would be more stringent.

Similarly, the Biota Performance Standard would be more difficult to achieve, if EPA had relied on absolute values allegedly derived from the model as claimed by GE. To the contrary, the Biota Performance Standard does not become effective until 15 years after the completion of remediation activities in each entire reach. If EPA were to consider the model to be predictive of absolute concentrations as GE claims, then the Biota Performance Standard would be effective far earlier than the 15 year period. For example, in Reach 5A, the model predicts that the remedy will achieve the Biota Performance Standard approximately 8 years after completion of the remediation in Reach 5A. Yet the Performance Standard is only triggered 15 years after completion, when the modeled concentration is approximately 0.6 mg/kg, or 60 percent lower than the Performance Standard of 1.5 mg/kg. Similarly, for Woods Pond, the projected fish tissue concentration is approximately 1.0 mg/kg 15 years after remediation, approximately one-third lower than the Standard. Therefore, by applying the Biota Performance Standard in a given reach 15 years after remediation is completed, EPA accounts for uncertainties in remedy performance, including those associated with model predictions of performance.²³³

EPA's reliance on this modeling work to develop Performance Standards is supported by the Administrative Record, EPA guidance, and case law.²³⁴ EPA is best positioned to consider and evaluate scientific information in developing a remedy that is in the public interest, including reliance upon information and analysis developed through computer modeling work – especially when EPA has already considered, addressed and/or rejected GE's

²³² Namely, “to account for uncertainty in setting a compliance value given the variability in the flux versus flow values, a regression was fit to the flux vs. flow values and prediction intervals were calculated.” Memorandum from Ed Garland, HDR to Scott Campbell, Performance Standard Flow-Based Annual Average PCB Flux Methodology, April 25, 2014.

²³³ Because it is anticipated that the Biota Standard will be achieved in the short-term, EPA established the complimentary Long-Term Biota Standard to measure the remedy's long-term success at achieving additional risk reduction and measuring progress towards long-term risk reduction goals in Massachusetts and Connecticut. Section II.B.1.b. (1)(b). footnote 3.

²³⁴ *E.g.*, *Sierra Club v. US Forest Service*, 878 F. Supp 1295, 1310 (D.S.D. 1993) (“as long as an agency reveals the data and assumptions upon which a computer model is based, allows and considers public comment on the use or results of the model, and ensures that the ultimate decision rests with the agency, not the computer model, then the agency use of a computer model to assist in decision-making is not arbitrary and capricious.”); U.S. EPA OSRTI OSWER Directive 9200.1-96FS, *Understanding the Use of Models in Predicting the Effectiveness of Proposed Remedial Actions at Superfund Sediment Sites* (2009).

concerns regarding use of the model. It is within EPA’s expertise to establish Performance Standards measuring the effectiveness of the remedy based upon information in the Administrative Record, including computer modeling.

c. The Performance Standards do not exceed EPA’s Consent Decree or statutory authority.

GE claims that the PCB Downstream Transport and Biota Performance Standards exceed EPA’s Consent Decree and statutory authority because they (1) impose potential additional unspecified response action obligations; (2) constitute an allegedly impermissible contingent remedy; and (3) allegedly violate the covenants of the Decree. None of these criticisms have merit as discussed below.

It is undisputed that EPA has authority to issue Performance Standards, as it is intended that the Permit include Performance Standards. CD ¶¶ 23, 24; Permit II.J. And it is undisputed that there are consequences under the Decree for failure to achieve and maintain and achieve Performance Standards. For example, in such cases, the Decree specifically provides for modification of the Rest of River SOW to include modified work to achieve and maintain Performance Standards, CD ¶ 39.a, or to seek additional response action if certain covenant reservation, or “reopener” conditions are met. CD ¶¶ 162, 163. Thus, even though the Permit calls for EPA to set forth “the *appropriate* corrective measures necessary to meet the Performance Standards,” Permit II.J. (emphasis added), the controlling Consent Decree recognizes that it will not always be possible or *appropriate* to identify all corrective measures necessary to meet and maintain the Performance Standards at the time of the Intended Final Decision. CD ¶39.a. Indeed, the Decree specifically recognizes that there is no “warranty or representation of any kind” that compliance with the selected corrective measures will achieve Performance Standards. CD ¶ 40.

GE argues that certain provisions of the Decree and Permit imply that together they were “intended to provide GE with certainty and finality at the time of the Rest of River remedy selection.” GE Comments at 61. In fact, no provision of the Decree or Permit explicitly or implicitly provides the certainty and finality now demanded by GE. Indeed, the Decree directly contradicts GE’s strained interpretation by explicitly providing for additional response actions to achieve and maintain Performance Standards:

if EPA determines that modification to the work specified in the ... the Rest of the River SOW, ... is necessary to achieve and maintain the Performance Standards or to carry out and maintain the effectiveness of a particular Removal or Remedial Action, ***EPA may require that such modification [of the work] be incorporated in the ... the Rest of the River SOW.***

CD ¶39.a (emphasis added).²³⁵

²³⁵ If there is any conflict between the Decree and Permit, the Decree controls. The definition of the term “Consent Decree” provides that “in the event of conflict between this document and any appendix, this document shall control.” CD definition of “Consent Decree.”

In claiming that these Performance Standards violate the Decree’s covenants, GE ignores the provisions of Paragraph 39.a. GE SOP 26. GE only points to the Decree’s provisions regarding reopener conditions or five year review, CD ¶¶ 43.c, 44, 46, 161-3, while ignoring the authority to require additional response actions to achieve and maintain Performance Standards set forth in Paragraph 39.a of the Decree. As a result, GE is wrong to claim that a provision in the Intended Final Decision “that allows EPA to require GE to conduct additional response actions (not specified in the remedy decision) in the future without satisfying the reopener conditions would violate the Decree.” GE SOP at 26. That is exactly what Paragraph 39.a. allows.²³⁶ In short, these Performance Standards, like any other Performance Standard, are not a violation of the Decree’s covenants.

GE also claims that no additional new or modified work can be required for the Rest of River because any such work would not have been subject to the “nine criteria analysis required”²³⁷ for other corrective measures at the time of the permit modification. GE SOP 26, Comments at 61. If this flawed interpretation of the Decree were correct, it would render Decree Paragraph 39.a and the Operation and Maintenance (O&M) provisions²³⁸ superfluous – neither modified work pursuant to Paragraph 39.a nor O&M work could ever be required because such work can never be subject to the allegedly relevant analysis -- it is unknowable at the time of remedy selection what modified work or O&M will be necessary to achieve and maintain Performance Standards.²³⁹ It is well settled that contractual terms should not be interpreted to render any provisions superfluous, and GE’s argument is incorrect.²⁴⁰ In addition, as discussed above at Section III.B, not all components of the remedy require the level of analysis demanded by GE. In short, neither the Decree nor the Permit requires that all work required for the Rest of River Remedial Action be subject to a fixed analysis at the time the permit is issued.

Finally, GE argues that any additional work required by an exceedance of a Performance Standard would constitute an allegedly impermissible “contingency remedy” that has not been fairly evaluated under the relevant criteria in breach of the Decree or law. GE

²³⁶ GE also claims that these Performance Standards conflict with the Certification of Completion provisions of the Decree. CD ¶ 88; Comments at 62. However, these Performance Standards function like any other Performance Standard. If at the time of completion of Remedial Action for the Rest of River, the Performance Standards have been attained and there is no violation of the Performance Standard, GE is entitled to a Certification of Completion. The ongoing obligation of maintaining any Performance Standard is established through O&M following Certification of Completion.

²³⁷ Note that while the “nine criteria” are significant to remedy selection the Decree and Permit provide that EPA may select the remedy based upon the CMS (which includes an evaluation of the alternatives under the nine criteria) and the information in the Administrative Record. CD ¶ 22.p; Permit II. J..

²³⁸ The Decree defines O&M to include “all activities required to maintain the effectiveness of the Remedial Action for the Rest of the River as required under an Operation and Maintenance Plan developed for the Rest of the River Remedial Action.” CD ¶ 4. For example the O&M program requires “other response actions necessary to achieve and maintain compliance with Performance Standards.” Intended Final Decision II.C.

²³⁹ Moreover, the question whether the “nine criteria analysis” applies during Paragraph 39.a. modification of work need not be resolved today. This question should be resolved during dispute resolution under the Decree, if and when EPA ever determines that modification of the work is necessary under Decree Paragraph 39.a., and if and when GE disputes that determination.

²⁴⁰ *U.S. v. Melvin*, 730 F. 3d 29, 37 (1st Cir. 2013)(contracts should be interpreted to give force to all provisions); *Crowe v. Bolduc*, 365 F. 3d 86, 97 (1st Cir. 2004)(“ . . . an inquiring court should, whenever possible, avoid an interpretation that renders a particular word, clause, or phrase meaningless or relegates it to the category of mere surplusage.”).

SOP at 27. In arguing that the “contingent remedy” here is impermissible, GE relies upon an EPA guidance document relating to the selection of contingent remedies in CERCLA RODs, describing some of the situations in which it is permissible or acceptable to include contingent remedies in a ROD.²⁴¹ Indeed, the Decree itself contains several permissible conditional response action obligations. For example, the Decree authorizes Performance Standards for a Conditional Solution, including as may be identified for the Rest of River: for example, when a property owner declines a land use restriction offer from GE, then GE may need to undertake additional cleanup if the land use changes. CD ¶ 34. Similarly, in certain circumstances when the selected remedy fails to achieve and maintain Performance Standards, the Decree also obligates GE to undertake additional response actions to achieve and maintain those Performance Standards. CD ¶39.a. Those additional response actions contribute to the effectiveness of the cleanup, but necessarily cannot be defined at the time of the remedy decision. Likewise, in certain emergency situations, GE must “take all appropriate action to prevent, abate, or minimize” the release or threat of release. CD ¶91. Thus, the Decree contemplates that not all work, contingent or otherwise, required for the Rest of River, such as O&M, can or need be subject to a fixed analysis at the time of the Final Intended Decision. Thus, the requirement here to undertake additional work in response to failure to maintain and achieve Performance Standards is no different than failure to meet and achieve any other Performance Standard, and does not constitute an impermissible contingent remedy.

In conclusion, GE simply does not like the fact that it may someday be required to undertake additional or modified work to achieve or maintain these Performance Standards according to the provisions of the Decree. None of these requirements are unusual or outside the bounds of EPA’s contractual or statutory authority. EPA must choose a remedy that is in the public interest and that protects human health and the environment, even if there is some uncertainty in the process.

2. Requirements Regarding Legally Permissible Future Projects or Work in Sediment and Banks

Requirement: In the event that a third party plans to conduct any Legally Permissible Future Project or Work²⁴² that requires handling or disturbance of sediments or riverbank soils with PCB concentrations greater than 1 mg/kg in certain stretches of the River, GE must conduct response actions, including material handling and off-site disposal, engineering controls, etc., to maintain Performance Standards, and/or the effectiveness of the remedy, and to be protective of such project or work.

GE Position: GE objects to the Performance Standards and corrective measure requirements regarding Legally Permissible Future Projects or Work on the grounds that these provisions allegedly exceed EPA’s Consent Decree and statutory authority for three reasons: (1) the provisions allegedly constitute an open-ended impermissible contingent remedy that has allegedly been inadequately evaluated under the relevant criteria; (2) the provisions are allegedly an impermissible end-run around the statutory and Decree re-opener provisions; and

²⁴¹ EPA, *EPA 540-R-98-031, A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (1999) at 8-3.

²⁴² This term is defined to include “construction and repair of structures; utility work; flood management activities; road and infrastructure projects; dam removal, maintenance, repair, upgrades, and enhancement activities; and activities such as the installation of canoe/boat launches and docks.” Intended Final Decision, Definitions, at page 4..

(3) the provisions allegedly unlawfully deprive GE of defenses to hypothetical 3rd party actions.

EPA Position: The Performance Standard and corrective measures regarding Legally Permissible Future Project or Work are well within Consent Decree and statutory authority. Given the amount of PCB contamination remaining following remediation, these provisions are essential to maintaining the effectiveness of the cleanup as conditions or uses change. Each of GE's arguments is rebutted below.

(1) The provisions are not an impermissible open-ended contingent remedy selected without adequate evaluation under the relevant criteria.

The record refutes each of the issues embedded in GE's claim that these provisions constitute an open-ended impermissible contingent remedy selected without adequate analysis. By this objection, GE seeks an unreasonable level of certainty that is inconsistent with other provisions of the Decree, and with the realities of dealing with PCB contamination. The requirement for GE to undertake work necessary to be protective of a Legally Permissible Future Project or Work is analogous to the previously approved Performance Standards for Conditional Solutions for the Rest of River and the right to identify similar Conditional Solutions for the Rest of River. CD ¶ 34, and ¶ 34(d)(iii). As set forth in Decree Paragraph 34, Performance Standards for Conditional Solutions require GE to use best efforts to obtain institutional controls in the form of Environmental Restriction and Easements ("EREs") for certain properties. If GE is unsuccessful in obtaining EREs, GE must then undertake a clean up to be protective of the current use, including, in certain circumstances, undertaking further response actions to be protective of future projects or work. CD ¶ 34(d)(iii).²⁴³ The Decree authorizes EPA to select similar Performance Standards for Conditional Solutions for the Rest of River. *Id.*

Not only are the Performance Standards for Legally Permissible Future Projects or Work not impermissibly "open-ended," these requirements serve as a limit on the scope of required corrective action. GE is required only to undertake response actions to achieve and maintain the Performance Standard for Legally Permissible Future Projects and Work. These requirements are also in keeping with the additional work required to achieve and maintain any Performance Standard as set forth in Decree Paragraph 39.a and are consistent with the requirement to undertake Operation and Maintenance, including "other response actions necessary to achieve and maintain compliance with Performance Standards." Intended Final Decision II. C. GE is unreasonably demanding more certainty in the process of addressing the

²⁴³ These Performance Standards include the requirement to undertake additional response actions in the event of implementation of projects, or certain changes in the legally permissible future uses related to certain properties, including "for any activities that would involve any off-property disposition of soils or excavation of soils, response actions to ensure the proper excavation, management and disposition of such soils and the protection of workers and other individuals during such excavation activities, in accordance with applicable laws and regulations." CD ¶ 34.d (ii)(C). And these Performance Standards include all the Performance Standards for a Conditional Solution "that may be identified as Performance Standards for a Conditional Solution in the Rest of River SOW" including response actions related to implementation of future projects or changes in use. CD ¶ 34 (emphasis added). Accordingly, the Decree authorizes EPA to identify Performance Standards for Conditional Solutions in the revised Permit for the Rest of River, and the Performance Standards identified in the Intended Final Decision regarding conditional solutions for legally permissible future work or projects are within the authority of the Decree. *Id.*

hundreds of acres of contaminated River and floodplain. This is especially true when GE is not being required to remove all the PCB contamination, or even impose EREs for riverbed and banks – GE is simply tasked with managing its residual contamination during Legally Permissible Future Projects or Work in a way that is protective of human health and the environment and meets Performance Standards, thus reducing costs to GE.

GE also objects that EPA has allegedly not adequately analyzed alternative corrective measures under the nine criteria for Performance Standards and other requirements related to Legally Permissible Future Projects or Work. This is not true. EPA guidance documents on selecting either RCRA or CERCLA remedies only require “appropriate” analysis of the remedy under the relevant criteria, and recognize that the ultimate weight given to the factors, and how they will be balanced, depends on the risks posed by the facility “and the professional judgment of the decision-makers.”²⁴⁴

Nothing in the Decree requires EPA to undertake a more rigorous analysis of any particular factor than is required by regulation or guidance. As is the case with many of GE’s objections, EPA—not GE—is in the best position to judge the appropriate level of analysis for selecting a remedy for the Rest of River that is in the public interest and protective of human health and the environment.

Here EPA considered the relevant information in the record including information regarding EREs, Conditional Solutions, Intuitional Controls, and PCB contamination in the Rest of River. For example, GE’s analysis included a cost estimate for “Institutional Controls and EREs.”²⁴⁵ EPA considered these alternatives and the alternative of requiring a full cleanup of all third party property, or requiring ERE’s on all property with residual contamination. In the end, EPA proposed an alternative that is less expensive than requiring complete removal of all PCBs, or even imposing EREs on the properties at issue here. Given the potential health risks posed by the PCB contamination that will remain after remediation, EPA rightly determined that the remedy should contain certain restrictions to such exposure. EPA concluded that it had sufficient information upon which to make a proposal according to the relevant criteria and information in the Administrative Record, and it is unreasonable for GE to argue that it is in a better position than EPA to determine whether further analysis is necessary.

GE’s objection that these provisions constitute an impermissible “contingent remedy” is also wrong for the same reasons discussed above at Section III.B.1.. In addition, the conditional framework for Legally Permissible Future Project or Work is authorized by, or is analogous to, the Performance Standards for Conditional Solutions endorsed under similar circumstances in GE’s Revised CMS,²⁴⁶ and the Decree. CD ¶¶34-38.

Although GE argues that the conditional solutions for Legally Permissible Future Project or Work selected in the Intended Final Decision are not specifically endorsed by the Conditional Solution provisions of the Decree, CD ¶ 34, these provisions are nonetheless

²⁴⁴ 55 Fed.Reg. No. 145, 36824-5 (July 27, 1990)(“ The exact emphasis placed on these decision factors, and how they will be balanced by EPA in selecting the most appropriate remedy for a facility, will necessarily depend on the types of risks posed by the facility, and the professional judgment of the decision-makers.”).

²⁴⁵ The cost estimate was submitted by GE under a claim of confidential business information, as part of the supporting material for the Revised CMS. EPA is handling the information in accordance with CBI claims.

²⁴⁶ See GE’s Revised CMS 4-29 to 4-30, endorsing the use of Conditional Solutions at certain floodplain properties where EREs are not obtainable.

within the broader authority of the Decree authorizing EPA to select a remedy to be protective of human health and the environment. To address residual levels of PCB contamination within portions of the floodplain, conditional solutions, such as the Performance Standards for Legally Permissible Future Projects or Work, are an acceptable alternative to requiring complete and costly cleanup of all contamination on all properties, or even the imposition of EREs on all such property. Source and risk control objectives are being met through protective measures to respond to residual contamination. For example, in lieu of total cleanup, to address residual contamination, the MCP establishes an analogous “Temporary Solution,” that requires inspection protocols for residual contamination and precludes certain changes in use. 40 MCP 40.1000. These MCP Temporary Solutions have been implemented by GE in certain portions of Pittsfield.²⁴⁷ In short, the Performance Standards for Legally Permissible Future Project or Work are not an impermissible open-ended contingent remedy selected without adequate analysis.

(2) – (3) The provisions are lawful and consistent with the reopener provisions.

GE also claims that the Performance Standards and related requirements regarding a Legally Permissible Future Project or Work violate the reopener provisions of the Decree, because certain “additional” future work may be required to be protective of the Legally Permissible Future Project or Work. However, the work is not “additional” within the meaning of the reopener provisions, because the Intended Final Decision provides that GE shall undertake such work. Just as none of the Performance Standards and related requirements in the Decree and SOW for Conditional Solutions, CD ¶ 34, trigger the reopener provisions, neither do the Performance Standards regarding a Legally Permissible Future Project and Work for the Rest of the River. In either case, the work at issue is necessary to achieve and maintain the Performance Standards as set forth in the Decree, SOW, and/or Intended Final Decision. GE’s obligations are simply part of the remedy and not “additional” work. These future work provisions are a rational response to PCB contamination in the River short of requiring massive investigation on all potentially contaminated property, EREs, and/or complete clean-up.

Third, GE contends the requirements are “unlawful” because they deprive GE of certain defenses in a hypothetical third party suit against GE for the same relief. If GE’s argument were correct, EPA could never settle disputes involving contamination of third party property, yet such settlements are a common EPA practice, including in this case. Here, GE agreed to cleanup certain third party properties, and waived certain defenses that GE might have had against third parties suing GE for the same relief. For example, the Conditional Solution provisions of the Decree provide that GE will undertake cleanup work on certain third party property including if such third party undertakes a Legally Permissible Future Project or Work. CD ¶ 34(d).²⁴⁸ GE now claims such requirements are “unlawful.” *Id.*²⁴⁹ But in resolving the

²⁴⁷ See, for example, GE’s seventh annual inspection report of certain Temporary Solution properties at the Dalton Avenue Site, Pittsfield, Mass.

²⁴⁸ To quote GE, these requirements “make GE entirely responsible to perform, at its sole cost, the response actions associated with whatever project or work the property owner or project proponent selects, regardless of its scope of costs and without the need for the owner or proponent to consider the necessity of the costs, their consistency with the NCP or the Massachusetts Contingency Plan (MCP), and whether there are more reasonable and cost-effective alternatives that would involve less PCB handling or impacts.” GE SOP at 29.

²⁴⁹ In making this argument GE relies upon the inapposite case, *Kelley v. EPA*, F.3d . *Kelley* involved comment on EPA rule-making not interpretation of a public interest Consent Decree.

United States' claims, GE agreed to these terms. CD ¶34. GE also agreed that EPA could identify such terms for the Rest of River, as the alternative could require EREs or complete cleanup on all these properties at far greater expense. *Id.* This is not unlawful, but inherent in the settlement of the United States' claims requiring cleanup of GE's contamination on third party property.

In sum, EPA considered the alternative of selecting a remedy for the Rest of the River to require GE to immediately clean up all the PCBs on all third party property, or even impose EREs on riverbank and riverbed. Instead EPA chose a more limited response, which simply required GE to properly manage and handle PCB material if there is a Legally Permissible Future Project or Work on certain third party property with PCB contamination above 1 mg/kg. Shifting the responsibility and costs of managing and disposing of GE's PCBs to innocent landowners or to the United States would not be in the public interest, and would be contrary to the bargain struck by the Parties years ago.

3. Requirements Regarding Future Floodplain Activities and Uses

Requirement: For properties within designated Exposure Areas (EAs) that do not meet the residential Performance Standard (2 mg/kg at surface and at depth), GE must: (i) record Grants of Environmental Restrictions and Easements (ERE) on GE properties and Notice EREs on Commonwealth properties; (ii) offer compensation for EREs on all other properties; and (iii) for properties where the owner declines an ERE, implement Conditional Solutions under which GE must undertake any response actions for any Legally Permissible Future Project or Work at the property (including material handling and off-site disposal, engineering controls, etc.) and any response actions for any change in use to a Legally Permissible Future Use to meet certain specified Performance Standards for future floodplain uses For any other floodplain properties in Massachusetts and Connecticut in Reaches 5 through 16 where sampling data indicate that PCB concentrations exceed 1 mg/kg in the floodplain portion, GE must conduct response actions for any Legally Permissible Future Project or Work (including material handling and off-site disposal, engineering controls, etc.) and response actions for any change in use to a Legally Permissible Future Use to meet the specified Performance Standards for future floodplain uses .

GE Position: GE objects to the Performance Standards and corrective measure requirements regarding future floodplain activities and uses on the grounds that the Standards and requirements are overbroad and conflict with EPA guidance. In particular, GE alleges that EPA guidance requires a change in use to be reasonably anticipated before requiring GE to record or seek EREs or implement Conditional Solutions. GE also objects to the requirements related to any Legally Permissible Future Project or Work that requires proper management and disposal of PCBs above 1 mg/kg but below 2 mg/kg on the grounds that this requirement is allegedly inconsistent with imposing a general residential clean-up standard of 2 mg/kg.

EPA Position: The Standards and requirements are consistent with the law, the NCP, the Decree, EPA guidance, and sound remedy selection decision-making. In the face of residual potential PCB contamination within certain areas of the floodplains, EPA could have chosen to require GE to sample and clean up all such property to residential standards, which would have been the most protective, and most costly, remedy. Instead, EPA has proposed a cleanup to be protective of current uses while only requiring GE to manage potential residual PCB contamination through a combination of more limited obligations, including: notification to land owners of residual contamination; responsibility for addressing PCB contaminated

material in certain exposure areas through EREs and Conditional Solutions; responsibility for addressing PCB contaminated material in portions of Reaches 5-16 through sampling and, *if necessary based upon sampling results*, additional response actions to be protective of legally permissible future uses and activities. The following addresses GE’s comments regarding (a) EREs/Conditional Solutions, and (b) Legally Permissible Future Project or Work and/or Changes in Use.

a. EREs/Conditional Solutions

GE claims the obligation to seek EREs (or alternatively Conditional Solutions) on properties with no reasonably anticipated change in use is arbitrary and capricious and inconsistent with EPA guidance. Contrary to GE’s claims, however, the EPA guidance cited by GE explicitly recognize that institutional controls are required to be protective of even *unanticipated* changes in future use.²⁵⁰ explains that, if residual contamination remains on site, “institutional controls will generally have to be included in the alternative to prevent an *unanticipated* change in land use that could result in unacceptable exposures to residual contamination, or, at a minimum, alert future users to the residual risks and monitor for any changes in use.” *Id.* at 9 (emphasis added).²⁵¹ This is all the more true because institutional controls serve multiple purposes including prevention of changes of use (even if unanticipated), notice of contamination, and/or safe handling instructions for contaminated soil during future excavations onsite. For instance, even on properties where there may be no reasonably anticipated change in use, notice and safe soil handling instructions are appropriate to be protective of utility work, or in the case of Audubon property, trail maintenance or development. Indeed, GE agreed to such institutional control provisions in the model ERE

²⁵⁰ *Land Use in the CERCLA Remedy Selection Process*, OSWER Directive 9355.7-04.

²⁵¹ Most recently, EPA guidance established that “if any cleanup alternative being evaluated leaves residual contamination in place, ICs should be considered to ensure that unacceptable risk from residual contamination does not occur.” Institutional Control s: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites, December, 2012. Indeed, unless all contamination is removed, Institutional Controls are a “typical” component of a remedy. *Remedy Selection guide* (EPA, 1995) at 13 (“Institutional controls typically will be used in conjunction with engineering controls when the remedy results in long-term waste management onsite.”). And to the extent the guidance documents discuss institutional controls in the context of consideration of reasonably anticipated land use, such consideration of reasonably anticipated land use does not limit the scope of appropriate institutional controls. *Considering Reasonably Anticipated Future Land Uses and Reducing Barriers to Reuse at EPA-Lead Superfund Remedial Sites* (EPA, 2010) at 11 (“Regions should take into account reasonably anticipated future land uses when selecting ICs and drafting the specific IC requirements and evaluating which instruments may be best to achieve the IC objectives.”). If hazardous substances remain on site, institutional control objectives should be established to be protective of human health and the environment regardless of whether a change in use is reasonably anticipated, or not.

attached to the Decree.²⁵² CD Appendix O. These kinds of protections are just as appropriate for third party owned property or state-owned property in the Rest of River.²⁵³

If EREs cannot be obtained following best efforts, implementation of Conditional Solutions is appropriate for all the foregoing reasons, regardless of whether the change in use is reasonably anticipated.²⁵⁴ Whether a change in use is reasonably anticipated or not, is no reason to shift responsibility away from GE for addressing its residual contamination to third parties or the United States. Further, GE is not being asked to address all its residual contamination on all property at this time, only if the property owner declines an ERE after best efforts, and upon the occurrence of a Legally Permissible Change in Use or Future Project or Work to protect human health and the environment.

b. Legally Permissible Future Project or Work and/or Changes in Use

GE argues that requiring any additional response action for properties with PCB levels below the residential cleanup standard of 2 mg/kg is allegedly inconsistent with the Decree. GE SOP at 32. Contrary to GE's implication, however, EPA has not set an unqualified universal standard of 2 mg/kg as protective throughout the entire Rest of River, including floodplains, with limited or no sampling history. The residential standard rests upon the requirements for adequate sampling and characterization of the property followed by response action to achieve the standard.

The properties at issue in the Rest of River cited by GE (Permit Section II.B.6.c. -- portions of the floodplains in Reaches 5-16), however, have not been sampled or have limited sampling and are not subject to any initial cleanup or response action measures as part of the

²⁵² GE assumes that if land is cleaned up to a standard that is generally protective of that current use, such as commercial, or industrial, then no further action is required at the property to address any residual contamination even if there is future excavation of contaminated material. This is wrong. For example, even if a property may be generally safe for commercial use, the level of PCBs remaining would still pose an unacceptable risk if the property use changed to a scenario with more potential PCB exposure, such as to a recreational or residential use, or if the property owner decided to excavate or otherwise handle any of the remaining PCB contamination. Accordingly, the levels of remaining PCBs make it essential that excavation and handling of PCB contaminated material requires additional response actions to remain protective of human health and the environment.

²⁵³ GE claims there is no need to provide such protections on state-owned property where there is no reasonably anticipated change in use. GE SOP 32. But the Notice ERE provides notice of residual contamination and/or instruction for handling residual contamination. These requirements remain relevant for any potential change in use (even if unlikely) and whether the property is owned by a third party or the Commonwealth.

²⁵⁴ GE also argues that Conditional Solutions are not Institutional Controls because Institutional Controls cannot include affirmative obligations. GE SOP at 32, n. 36. However, GE previously agreed that the model ERE, an Institutional Control that is attached as an Appendix to the Decree, imposes affirmative obligations regarding contaminated soil management and handling. CD, Appendix O. Similarly, EPA Institutional Control Guidance, December 2012 provides that EREs may "require the performance of specific activities." *Id.* at 4. Nevertheless, this issue need not be resolved here. The only relevant question is whether EPA properly selected conditional solutions as components of the Intended Final Decision. As noted above, this selection was a well-chosen alternative to requiring GE to cleanup all its contamination on all property. Instead, GE need only implement certain response actions in the event of certain Legally Permissible Changes in Use or Project or Work on contaminated property.

remedy.²⁵⁵ In other words the extent of contamination is unknown or uncertain. In such areas, EPA has determined that additional sampling must be undertaken in certain circumstances to determine if additional response actions in such areas are necessary to be protective of human health and the environment. Moreover, GE is not required to conduct any sampling in such areas unless: (1) there is a Legally Permissible Change in Use or Future Project or Work, and (2) there is sampling data showing PCB levels are above 1 mg/kg. Only if the sampling establishes levels above 1 mg/kg, must GE undertake response actions to be protective of any Legally Permissible Future Project or Work, for example, ensuring the proper excavation, management, and off-site disposal of such sediment or soil.²⁵⁶ Similarly, only if additional sampling establishes levels above 2 mg/kg (or above the applicable Performance Standards in Tables 3 and 4) must GE undertake response actions to be protective of any change in a Legally Permissible Future Use. Accordingly, EPA determined that the risk of unknown PCB levels, including potentially high PCB levels, requires that certain properties with any Legally Permissible Future Project or Work or change in Use be subject to additional sampling and, if necessary, additional response action. The Intended Final Decision is not inconsistent with the Decree in treatment of property with no or limited history of PCB sampling or other response action measures, because there are no such areas outside of Rest of River under the Decree. The alternative would require GE to extensively sample all the Rest of River properties at issue to confirm that such properties are safe for all future uses and activities. Such an alternative would have been far more expensive than the Intended Final Decision.

The remainder of the objections to the requirements here are the same as GE's objections to the requirements for Performance Standards and Corrective Measures regarding Legally Permissible Future Projects or Work. For the same reasons as stated above, these requirements here are an appropriate remedy for addressing GE's contamination.

4. Inspection, Monitoring, Maintenance at Non-GE-Owned Dams

Requirement: In the Intended Final Decision, EPA includes requirements to ensure that future PCB releases from dams are minimized, including that GE "shall minimize PCB releases related to dams and Impoundments by inspecting, monitoring and maintaining such dams and Impoundments, and operating the Woods Pond and Rising Pond Dams," and that such activities shall include: maintaining the integrity of the dam to contain contaminated sediments, and conducting materials handling and off-site disposal, and engineering controls.²⁵⁷

GE Position: GE asserts that EPA's requirements would impose obligations on GE that are the responsibility of dam owners under federal and state law. Specifically, GE argues: (1) that this requirement would interfere with existing federal and state dam regulatory programs, by creating conflicts between GE and the dam owner on repairs and upgrades; (2) that EPA does not have authority to impose obligations or liabilities on GE that go beyond what is

²⁵⁵ To the extent that the Intended Final Decision is not clear on this point, it can be modified to clarify that the obligation to address a Legally Permissible Change in Use or Future Project or Work at properties with PCBs contamination less than 2 mg/kg in these reaches will no longer apply if such properties are remediated to residential standards. Similarly, EPA can clarify in Sections 6.b.1.b that for properties in EAs that are remediated to residential standards, then GE does not need to seek EREs or implement a CS

²⁵⁶ After all, disposing of PCBs above 1 mg/kg in Massachusetts is subject to regulation. 310 CMR 40.0000.

²⁵⁷ Intended Final Decision, at II.B.2.j.(1)(a), and II.B.2.j.(2)(b). The description in this Statement of Position of the Intended Final Decision requirements is general; for specific details, see the Intended Final Decision.

necessary to protect human health and the environment from GE’s PCB releases, such as potential liability as the “operator” of the dams; and (3) that EPA’s proposal is in conflict with the Decree requirement that EPA evaluate this requirement under the remedy selection criteria in the Permit.

EPA Position: As an initial point, there is no absolute requirement for GE to perform inspection, monitoring and maintenance requirements on dams they do not own. GE can elect, as part of the Performance Standards for the Reach 7 Impoundments, to remove the PCBs impounded behind the dams, thus eliminating the inspection, monitoring and maintenance requirements.²⁵⁸ However, depending on the approaches that GE recommends in its remedy design proposals, if risks remain under GE’s approach, then the inspection, monitoring and maintenance requirements in the Intended Final Decision represent a rational approach to ensuring protectiveness.

Further, to address GE’s specific arguments, first, there is no interference or conflict with existing requirements on dam owners. GE’s responsibilities under the Intended Final Decision are in connection with minimizing releases of the PCBs that are located behind the dams.²⁵⁹ The requirements of the Intended Final Decision are not meant to relieve the dam owner of its statutory obligations. If GE believes that the dam owner is currently performing inspections of the dam in a frequency and a manner that will ensure minimization of releases of PCBs located behind the dam, and GE receives approval from EPA that the activities by the dam owner are protective to minimize releases of PCBs located behind the dams, GE does not have to perform duplicative inspection, maintenance and monitoring activities at that dam.²⁶⁰ Beyond that, based on EPA’s review of GE’s Statement of Position, EPA would be willing to clarify in the Final Permit decision that if GE uses best efforts to fulfill these obligations but cannot fulfill them without a conflict occurring, GE may submit to EPA for review and approval a plan that includes, without limitation, any proposed actions GE will take to remediate the PCB contamination behind the dams, any further actions to be taken to obtain agreement from the dam owner, and whether the Engineered Caps will maintain effectiveness without GE having fulfilled its obligations regarding dam inspection, monitoring and maintenance.

If however, the activities performed by the dam owner are not sufficient to minimize releases of PCBs behind the dams, GE has the responsibility in the proposed remedy to ensure that the release of PCBs is minimized. In fact, GE’s own experience at Rest of River is

²⁵⁸ Intended Final Decision, at II.B.2.f.(1)(d).

²⁵⁹ In Reaches 5-9, there are six dams which currently have impoundments that contain GE’s PCBs at unacceptable levels: Woods Pond Dam in Reach 6, the Columbia Mill Dam, Eagle Mill Dam, Willow Mill Dam and Glendale Dam in Reach 7, and Rising Pond Dam in Reach 8. GE currently owns the Woods Pond Dam and Rising Pond Dam, and only two other dams are currently in active use (Willow Mill and Glendale). Presently in Reach 7, the Eagle Mill dam is already partially breached and the owner of the Columbia Mill Dam vacated the dam/mill complex and is no longer operates the dam.

²⁶⁰ See Intended Final Decision, II.B.2.j.(2)(b): Permittee may seek EPA approval for another party to implement some or all of the Permittee’s inspection, monitoring and maintenance activities.

inconsistent with its arguments. GE took ownership of Rising Pond Dam in 2008.²⁶¹ However, even as far back as 1989, GE had performed an inspection of Rising Pond Dam.²⁶²

Moreover, as to GE's second argument, these requirements are clearly necessary to protect human health and the environment, and EPA is not exposing GE to further liability as an operator. First, EPA's concern toward minimizing releases of PCBs from dams is not theoretical, but based in recent history on this same stretch of the Housatonic. In 1992, releases of contaminated sediment occurred when water behind the Rising Pond Dam was released to facilitate repairs to the dam. According to the Connecticut Department of Environmental Protection's Bureau of Water Management, no apparent measures were employed to contain PCB contaminated sediment in Rising Pond during this work.²⁶³ Following the dam repair, benthic and fish tissue samples collected and analyzed for PCBs downstream of Rising Pond showed an increase in PCB concentrations.²⁶⁴ Additionally, per Connecticut DEP, GE informed CT DEP that March 1993 data collected at a downstream location during high flow events in April, May and June 1992 exhibited atypically high PCB levels.²⁶⁵

Ensuring the effectiveness of the dams at minimizing PCB releases is also important to the protectiveness of the Engineered Cap called for in the proposed remedy. Were there to be a significant dam opening or failure, the Engineered Cap would also fail to be effective in isolating the PCBs. It is not logical to construct Engineered Caps behind a dam and then not ensure that the dams are properly inspected, monitored and maintained.

If EPA had chosen to require GE to remediate all PCBs behind the dams, then the emphasis on protecting Engineered Caps, would not be as important. Moreover, GE has the flexibility in the Intended Final Decision to propose to excavate more sediment as a way of eliminating the need for an Engineered Cap behind a dam. If GE does not choose that approach, GE must take other actions like a Cap to keep remedy protective.

As to "operator" liability, initially, EPA points out that the Intended Final Decision allows GE to reach agreements with each dam owner on responsibilities, and that GE may seek EPA approval for another party to implement some or all of GE's activities. Furthermore, GE has already agreed that it will not contend that PCB contamination in the Rest of River did not migrate from the GE facility.²⁶⁶ Furthermore, in past actions by EPA under CERCLA for River cleanup, EPA determined that GE is a liable party for PCB contamination in the River under CERCLA.²⁶⁷ GE does not subject itself to additional liability by performing the

²⁶¹ Berkshire Eagle, "GE buys former Fox River dam", Sunday July 13, 2008.

²⁶² April 12, 1989, memorandum from Harza Engineering Company to GE, re: Rising Pond Dam, Assessment of Planned Breaching of Dam; June 12, 2006.

²⁶³ Connecticut Bureau of Water Management Interdepartmental Message from Charles Fredette (Supervising Sanitary Engineer) to Michael Harder (Director) Regarding Summary of 1992 CT DEP Housatonic PCB Monitoring Re: Rising Dam, Great Barrington, MA. May 18, 1993. ("Fredette Memorandum").

²⁶⁴ Connecticut Post, "Higher level of PCBs in Housatonic feared", May 23, 1993.

²⁶⁵ Fredette Memorandum.

²⁶⁶ Decree Appendix G, Reissued RCRA Permit, at Section I.P (Interpretation of Migration from GE Facility).

²⁶⁷ E.g., June 3, 1998, EPA, Second Unilateral Administrative Order for Removal Action, CERCLA Docket No. I-98-1040, Paragraph 9.

necessary actions needed to minimize PCB releases from behind the dams. In fact, by performing the actions, GE is minimizing its liability for future releases.

Regarding GE’s argument that EPA should have evaluated these requirements separately under the remedy selection criteria, the record is clear that EPA has fulfilled its responsibility to perform a thorough evaluation of multiple alternative remedies pursuant to the nine Permit criteria. At the same time, EPA is not required to perform that same level of evaluation on each element within an alternative. For example, to address the risks posed by PCBs behind the Reach 7 Impoundments, EPA evaluated a number of remedial options, including an alternative to remove all PCBs at levels posing unacceptable risks. Instead of requiring such a full-scale removal, EPA has proposed to reduce the risks with an alternative that excavates some PCBs and reduces exposure to the remaining PCBs through use of an Engineered Cap behind the Impoundments. However, as with other remedy components that seek to isolate or reduce exposure to PCBs, the approach must also include long-term monitoring/maintenance elements to ensure the proposed approach remains protective. Each of these elements within a proposed alternative is not required to undergo the same level of evaluation. In that respect, these obligations are more similar to the requirements for inspection, monitoring and maintenance in Section II.B.4, as well as the Operation and Maintenance requirements at Section II.C of the Intended Final Permit.

In summary, as demonstrated above, GE’s arguments are without merit. However, in the interest of resolving this dispute based on GE’s Statement of Position, EPA is willing to modify this provision as follows: (1) clarify in the Final Permit decision that if GE uses best efforts to fulfill these obligations but cannot fulfill them without a conflict occurring, GE may submit to EPA for review and approval a plan that includes, without limitation, any proposed actions GE will take to remediate the PCB contamination behind the dams, any further actions to be taken to obtain agreement from the dam owner, and whether the Engineered Caps will maintain effectiveness without GE having fulfilled its obligations regarding dam inspection, monitoring and maintenance; (2) place these requirements in the Final Permit decision within the Reach 7 provisions of Section II.B.2.f, the Inspection, Monitoring and Maintenance provisions at Section II.B.4, and/or the Operation and Maintenance provisions at Section II.C; and (3) revise the responsibilities in the Final Permit decision to be that GE will ensure performance of inspection, monitoring and maintenance instead of performing inspection, monitoring and maintenance.

5. GE Responsibilities Regarding Catastrophic Failure or Material Breach of a Dam

Requirement: If there is a catastrophic failure or breach of a dam causing a materially greater than normal release of PCBs, GE must propose a response to maintain the Performance Standards or to maintain the effectiveness of the remedy Upon EPA approval of such plan, GE is to implement the plan.²⁶⁸

GE Argument: GE objects as follows: (1) for non-GE dams, repair or removal of a dam is the responsibility of the dam owner, not GE; (2) the requirements for GE to conduct response actions have not been evaluated under remedy selection criteria and thus conflict with the Decree, and that such actions “constitute a contingent remedy under EPA guidance”; and

²⁶⁸ Intended Final Decision, II.B.2.j.(2)(b)

included the selection of a remedy for a complex hundred mile river system without requiring any natural resources that were damaged by the clean up to be restored. Such a hypothetical agreement would cost GE less but runs counter to public policy, EPA practice, and the terms of the Decree.

1. Restoration Requirements for Areas Disturbed by Remediation Activities.
a. Restoration and Compensatory Mitigation

Requirement: GE must develop and implement a plan for restoration of affected habitats disturbed by remediation activities to the extent feasible and consistent with remediation requirements.

GE Position: GE argues that any obligation to restore natural resources damaged by implementation of the remedial action and/or to comply with ARARs allegedly violates the Decree covenants and/or otherwise exceeds EPA’s Consent Decree and statutory authority.

EPA Position: Both types of restoration activity required by the Intended Final Decision are within EPA’s Consent Decree and statutory authority, including (1) requiring GE to restore resources disturbed by remediation activities; and (2) requiring GE to comply with ARARs that provide for restoration work. Each of these points is discussed below.

GE advances a novel argument to suggest that EPA does not have the authority under CERCLA or RCRA to require the restoration of impacted habitats disturbed by remediation activities. GE SOP at 33-34. Such authority is vested in EPA pursuant to: Section 106 of CERCLA, providing the power to “issue such orders as may be necessary to protect public health and welfare and the environment,” 42 USC § 9606; Section 3004(u) of RCRA granting broad authority to issue “corrective action for all releases of hazardous waste,” 42 USC § 6924(u); and Section 3005(c)(3) of RCRA providing that each permit under this section “shall contain such terms and conditions as the Administrator (or the State) determines necessary to protect human health and the environment.” 42 U.S.C. § 6925(c)(3). Nothing in the Decree limits this authority, and GE’s past implementation of the Decree recognizes EPA’s authority to require GE to restore natural resources disturbed by response action to pre-remediation condition. For example, when GE compared the alternatives for remediating the Rest of River in its Revised CMS, GE considered potential restoration activities to restore disturbed areas²⁷³ and estimated the costs of restoring areas disturbed by the response actions to pre-remediation condition, including the cost of restoring forested wetland, shrub and shallow emergent habitat, backwater, deep emergent marsh, and other habitat.²⁷⁴ GE and EPA considered restoration as a component of the evaluated remedial alternatives, separate and apart from settlement of natural resource damage (“NRD”) claims. Similarly, in other areas of the GE Pittsfield/Housatonic River Site outside the Rest of River, such as Unkamet Brook, Silver Lake, and portions of the floodplains, where GE has undertaken removal action work, GE is restoring, or has restored, portions of the Brook, Lake and floodplains to at least pre-remediation condition pursuant to the applicable Work Plans.²⁷⁵ For example, pursuant to the Work Plan for Phase 4 Floodplain

²⁷³ Revised CMS, Chapter 5, Approach to and Considerations in Evaluating Adverse Impacts from Remedial Alternatives, Means to Avoid or Minimize those Impacts, and Potential Restoration.

²⁷⁴ Revised CMS, Appendix Q, Submitted as Confidential Business Information.

²⁷⁵ See Work Plans for Unkamet Brook, Silver Lake, and Phase 3 and Phase 4 properties adjacent to the 1 ½ Mile Reach.

Properties, GE conducted inventories of pre-existing conditions, including trees, shrubs, and other features to ensure that restoration of conditions to pre-remediation conditions would be achieved. Accordingly, this work to restore the Brook, Silver Lake, and portions of the floodplain to pre-remediation condition is independent of GE's obligations to also create additional habitat improvements in other separate areas of the Brook and Lake to resolve its natural resource damages liability to the natural resource trustees.²⁷⁶

Under CERCLA, cleanups must also comply with all ARARs. 42 U.S.C. § 9621(d).²⁷⁷ Here, the Clean Water Act and the Massachusetts Endangered Species Act constitute ARARs and, under certain circumstances, these ARARs require the restoration of natural resources disturbed by remediation. GE argues, however, that EPA does not have authority to require restoration of disturbed areas even as part of CERCLA's mandate to comply with ARARs, because ARARs may allegedly only apply to hazardous substances that remain "onsite." GE SOP at 34. No court has ever adopted GE's interpretation and it is refuted by the Decree: the Decree establishes ARARs that are not limited to hazardous substances remaining "onsite." Decree, Appendix E, Attachment B. Likewise, EPA's guidance makes clear that federal and state statutes and regulations that are directed at protecting locations (e.g. resource areas, including habitats) can also be ARARs. For example EPA guidance on such location-specific ARARs states that substantive compliance with the federal Endangered Species Act ("ESA") means:

that the lead agency must identify whether a threatened or endangered species, or its critical habitat, will be affected by a proposed response action. If so, the agency must avoid the action or take appropriate mitigation measures so that the action does not affect the species or its critical habitat.²⁷⁸

Indeed, the ESA is an ARAR that GE does not dispute, including the obligation to "take mitigation measures so that action does not affect species/habitat." Intended Final Decision, Attachment C at 7.

Thus, contrary to GE's claims, it is well settled that the natural resources disturbed by remediation must be restored and mitigated as part of the remedial process in accordance with the substantive requirements of ARARs, such as the ESA, the Massachusetts Endangered Species Act, the Massachusetts Wetlands Protection Act, and the Clean Water Act. Indeed, in other areas of the Site outside the Rest of River, the Clean Water Act and the Massachusetts Wetlands Protection Act constitute ARARs for the Removal Actions Outside the Rest of River and respectively require that River banks will be restored, habitat will be improved, and "disturbed vegetation will be restored." Decree, Appendix E, *Id.* Table 3 at 2, 4, 5. Similarly, GE does not dispute that the National Historic Preservation Act and the Mass. Historical Commission Act serve as ARARs, including for the Rest of River. *Id.* at 7; Intended Final Decision, Attachment C at 6, 13.

²⁷⁶ See Work Plans for Unkamet Brook, Silver Lake, and Phase 3 and Phase 4 properties adjacent to the 1 ½ Mile Reach.

²⁷⁷ The statute requires the remedy to be conducted in accordance with all ARARs unless specific waiver requirements are met. CERCLA §121(d).

²⁷⁸ EPA's CERCLA Compliance with Other Laws Manual: Part II, Clean Air Act and Other Environmental Statutes and State Requirements (August, 1989), p. 4-12

In addition, GE claims that any restoration to return disturbed areas to pre-remediation condition or to comply with ARARs would conflict with the Decree’s covenants regarding natural resource damages (“NRD”). The future liability covenants related to NRD for the Rest of River, however, are not triggered until the Rest of River Remedial Action is complete. CD ¶¶ 112.a., 161. Indeed Paragraph 161(d) is explicit on the timing of the covenant:

With respect to future liability, the covenant not to sue shall be effective for each Removal or Remedial Action to be performed by [GE] ... upon EPA’s Certification of Completion for that individual Removal or Remedial Action....

CD ¶ 161(d). Indeed, the statute prohibits the Natural Resource Trustees from providing a covenant for NRD until the responsible party “agrees to undertake appropriate actions necessary to protect and restore the natural resources damaged by” releases of hazardous substances. 42 U.S.C. § 9622(j)(2).²⁷⁹ As discussed earlier, other provisions of the Decree, in turn, require that GE’s implementation of response actions comply with ARARs, which include those requiring that natural resources disturbed by the remedy be restored or mitigated: Specifically, GE is required to comply with any ARAR set forth in the documents selecting the Rest of River Remedial Action and/or in the Rest of River SOW, unless waived by EPA pursuant to CERCLA and the NCP. CD ¶ 8. Here, GE agreed to implement the remedy for the Rest of River, and the NRD covenant for the Rest of River applies once this Remedial Action is complete. CD ¶¶ 112.a., 161(d).

GE relies on Decree Paragraph 114.b, a payment provision to the Natural Resources Trustees, to argue that it precludes EPA from requiring compliance with ARARs or restoration of areas disturbed by remediation activities. But this provision merely provides that GE pay the Trustees: “\$600,000 as mitigation for wetlands impacts associated with PCB contamination and with response actions at the Site.” CD ¶ 114.b. GE ignores the other relevant Decree provisions that state that GE’s *satisfaction of the natural resource damage claims* is subject to GE’s “[p]erformance of the response actions required under the Decree.” CD 112(a). In short, until GE performs the Rest of River response actions in accordance with the requirements of the Decree, which include compliance with ARARs, GE has not satisfied the Governments’ claims for natural resource damages. Accordingly, the payment provision in Paragraph 114.b is not a covenant not to sue from the United States. As noted above, that covenant is set out in Paragraphs 112(a) and 161, and is not triggered until completion of all Work required in the Rest of River SOW.²⁸⁰

GE also includes a few summary arguments regarding the level of detail and likelihood of success of restoration. SOP at 33, incorporating Comments. To the extent GE objects that the specifics of restoration are not sufficiently developed, those details will be set forth in the

²⁷⁹ GE suggests that because the *Natural Resource Trustees* have authority to recover for NRD, GE SOP at 34, that the United States, through EPA, may not require restoration of resources damaged by response action work or compliance with ARARs requiring restoration of natural resources. This interpretation is inconsistent with the covenants and with the statute. 42 U.S.C. §9622(j)(2). Satisfaction of the *Trustees’* claim is triggered by completion of all work required by the Decree, including the work set forth in EPA’s Intended Final Decision.

²⁸⁰ GE is wrong to claim that “restoration and acquisition of equivalent resources are part of NRD, not remedial action.” GE SOP at 34. The Trustees and EPA have overlapping interests and jurisdiction and worked together here to draft a settlement in the public interest. As noted above the covenant not to sue for NRD does not apply until all the work is completed in the Rest of River, including restoration of resources disturbed by remediation and/or in compliance with ARARs.

Rest of River SOW or the Work Plans for the Rest of River SOW as is contemplated by the Decree. CD ¶¶ 22.x. To the extent GE further questions the likelihood of success of restoration efforts, information in the record does not support GE’s position, and as noted above at Section III.B of this Statement of Position additional detail or certainty is not required at the remedy selection phase of remedy implementation. Finally, the restoration requirements in the Intended Final Decision reflect the expertise and input of EPA and the States in this area.

2. Massachusetts Endangered Species Act

Requirements: PCB contamination from GE’s facility has been deposited widely throughout the Rest of River, including in areas designated by the Division of Fisheries and Wildlife (“DFW”) in the Massachusetts Department of Fish and Game (“DFG”) as habitat for endangered, threatened and species of special concern (collectively, “State-listed species”) pursuant to the Massachusetts Endangered Species Act (“MESA”) and the MESA regulations.²⁸¹ In evaluating remedial approaches for Rest of River, EPA has worked extensively with DFW’s Natural Heritage and Endangered Species Program (“NHESP”) over many years to identify potential approaches that balance remediation of the risks posed by GE’s PCBs with the protection of State-listed species, and the Intended Final Decision reflects agreements reached between EPA and NHESP in this regard.^{282, 283} The integration of MESA concerns into the Intended Final Decision is not limited to a particular provision, but is part of many different components for addressing the River, riverbanks, and floodplains.²⁸⁴

GE Position: GE argues three things: (1) that the net benefit requirement is inapplicable to species for which the “take” would impact a significant portion of the local population and that the requirement cannot be applied to those species; (2) that the requirement is not an ARAR as defined by CERCLA because of, GE claims, the amount of discretion in the decision maker; and (3) that the requirement is an attempt to recover natural resource damages in violation of the Decree’s covenants not to sue for natural resource damages (NRD).

EPA Position: First of all, the dispute is speculative and need not be decided at this time. During the design of the remedy, if EPA determines that a “take” that would impact a significant portion of the local population occurs, EPA will identify that to GE, and GE would have the right, as with any design/implementation dispute, to pursue Dispute Resolution under the Decree, including review by U.S. District Court. CD Section XXIV. Beyond that, EPA will clarify the position below.

²⁸¹ M.G.L. c. 131A and 321 CMR 10.00.

²⁸² See EPA’s May 2012 Status Report; and NHESP’s July 31, 2012 letter to EPA, Attachment B to the Intended Final Decision.

²⁸³ The Intended Final Decision is similar to the June 2014 Proposed Cleanup Plan EPA issued for public comment. The Commonwealth, in its October 27, 2014 letter expressing support for the Proposed Cleanup Plan, stated, [T]he Commonwealth wishes to express our appreciation of EPA’s willingness to consider and address many of the Commonwealth’s concerns and priorities for the remediation of this unique ecosystem that ... includes one of the richest and most diverse array of state-listed species protected under [MESA] and the MESA regulations at 321 CMR 10.00”.

²⁸⁴ Attachment B to the Intended Final Decision provides a description of the Core Habitat Area concepts used to assist EPA and the Commonwealth in identifying the remedy most suited to the circumstances of Rest of River.