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Via Hand Delivery

March 15, 2016

Carl Dierker
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U.S. Environmental Protection Agency, Region I
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Boston, MA 02101-3912

Re: GE-Pittsfield/Housatonic River Site
Rest of River (GECD850)
Dispute of EPA's Intended Final Decision Selecting Rest of River Remedy
GE's Reply to EPA's Statement of Position

Dear Mr. Dierker:

Enclosed please find General Electric Company's (GE's) Reply to EPA's February 29, 2016 Statement of Position in GE's dispute of EPA's intended final decision on a Rest of River Remedial Action for the GE-Pittsfield/Housatonic River Site.

GE remains committed to a substantial Housatonic Rest of River Remedial Action that would protect human health and the environment while minimizing impacts on the unique Housatonic Rest of River ecosystem.

In fact, in an effort to avoid this dispute with EPA we were prepared to undertake a more expansive cleanup than could be required under the Consent Decree and applicable law. We worked extensively with EPA, the Commonwealth of Massachusetts and the State of Connecticut to reach an agreement on a remedy. Unfortunately we were unsuccessful.

EPA's intended final decision cannot be reconciled with EPA's commitments in the Pittsfield/Housatonic Consent Decree or applicable law.

I would like to highlight some of the most indefensible elements of EPA's position.

First, while EPA recognizes the unique ecology of the upstream portion of the Housatonic Rest of River, designated by the Commonwealth of Massachusetts as an Area of Critical Environmental Concern, it does so only when EPA believes it serves its purpose. EPA ignores that unique ecology when it insists on a remedy that is far larger than alternatives that caused the Commonwealth to previously conclude that "in virtually all instances the actual and inevitable damage to this existing, unique ecological resource will far exceed the theoretical benefit of lower PCB concentrations."

Second, EPA criticizes GE for appropriately noting that out-of-state disposal, EPA's Woods Pond proposal, and other elements of EPA's intended final decision, can not be reconciled with the Rest of River remedy selection criteria specified in the Consent Decree, including overall protectiveness and cost.

The fact is that EPA's Rest of River remedy selection criteria dictate on-site disposal of the sediment and soil from the Rest of River. As recently as December, an EPA spokesman conceded that on-site disposal is "just as safe" as out-of-state disposal (Berkshire Eagle, "Rest of River: EPA, GE Talks on Cleanup Plan enter Critical Phase", 12/21/15). EPA also concedes that out-of-state disposal will cost between $200 and $300 million more with no benefit other than placating local opponents, which is not a remedy selection criterion. EPA's attempt to now distance itself from the remedy selection criteria, and its selection of on-site disposal at many sites, including this one, is the height of arbitrariness.

EPA's Woods Pond proposal is equally inconsistent with the Rest of River remedy selection criteria. EPA's own model establishes that much less removal in Woods Pond is equally protective. EPA's Woods Pond Proposal cannot be reconciled with the Rest of River remedy selection criteria because it is motivated not by those criteria, but by an interest in garnering community support for its intended final decision.

Finally, EPA's claim that GE seeks only to "reduce its costs" is totally inconsistent with the history of GE's engagement with EPA, the Commonwealth of Massachusetts and the State of Connecticut on the Pittsfield/Housatonic River Site. GE has spent hundreds of millions of dollars on the remediation of the River, GE's former Pittsfield facility, and surrounding areas. GE was prepared to do more in the Rest of River than can be required under the Consent Decree. Nor has GE ever sought "virtually total certainty and finality in the cleanup, with uncertainties and costs all to be borne by the public." GE seeks only that EPA honor its commitments in the Consent Decree and now identify the response actions it believes are necessary in the Rest of River, subject those response actions to the robust analysis required by the Consent Decree now, and not punt those decisions into the future. EPA's posturing does nothing to advance the cleanup of the Housatonic River or justify indefensible elements of its intended final decision.

GE's position is clear and unchanged. We will implement, at considerable cost, a common sense solution to the PCBs remaining in the Housatonic Rest of River that protects human health and the environment, and is consistent with the Consent Decree and other applicable law.

We look forward to your decision in this dispute. Please contact me if you have any questions or need any further information.

Sincerely,

Ann R. Klee
Vice President
Global Operations – Environment, Health & Safety

Enclosure

cc: Curt Spalding, EPA
Bryan Olson, EPA
Robert Cianciarulo, EPA
Dean Tagliaferro, EPA
Timothy Conway, EPA
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GENERAL ELECTRIC COMPANY'S REPLY TO EPA'S STATEMENT OF POSITION IN DISPUTE OF EPA'S NOTIFICATION OF INTENDED FINAL DECISION ON REST OF RIVER REMEDY

March 15, 2016

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INTRODUCTION

On October 29, 2015, the General Electric Company (GE) invoked dispute resolution, pursuant to Paragraphs 22.o and 141.b(i) of the Consent Decree (Consent Decree or CD) for the GE-Pittsfield/Housatonic River Site (the Site), regarding the U.S. Environmental Protection Agency's (EPA's) September 30, 2015 notification to GE of EPA's intended final decision on the modification of the Reissued Resource Conservation and Recovery Act (RCRA) Permit (the Permit) selecting a Rest of River Remedial Action. The parties subsequently agreed to conduct confidential mediation on a limited number of issues raised by EPA's intended final decision (pursuant to Paragraph 134 of the Consent Decree) and to continue that mediation until March 15, 2016, but at the same time to proceed with formal dispute resolution pursuant to Paragraph 135 of the Consent Decree. As agreed, GE submitted its Statement of Position (GE Statement) in that formal dispute resolution on January 19, 2016, and EPA submitted its Statement of Position (EPA Statement) on February 29, 2016. As further agreed, GE is now submitting this Reply to EPA's Statement.

EPA's Statement includes a number of general points that apply to many of the disputed issues. Section I of this Reply presents GE's position on several of those general points. On the specific disputed issues, EPA's Statement reiterates a number of arguments that it has made before in the documents accompanying its intended final decision and that were addressed in GE's Statement, and it also includes some additional arguments. Given time constraints, GE has not included herein a reply on each of the disputed issues or on all of the arguments presented in EPA's 95-page single-spaced Statement. Rather, in Section II of this Reply, GE addresses the specific issues and EPA contentions that GE believes warrant additional discussion. At the same time, GE adheres to all points and positions set forth in its Statement on all disputed issues.

I. GENERAL POINTS

A. EPA Is Required to Comply with the Consent Decree and the Law.

EPA claims that GE is arguing that "GE knows better than EPA how to select a remedy in the public interest" (EPA Statement at 1). That is not GE's position. GE's position is that, in selecting a remedial action for the Rest of River, EPA is bound to comply with the Consent Decree, the applicable statutes, and its general duty not to act arbitrarily, capriciously, or otherwise unlawfully, and that EPA did not comply with those legal obligations in selecting its intended final remedy.

B. EPA Is Not Entitled to Deference on Contract and Statutory Interpretation Issues.

EPA argues generally that its intended final decision is "entitled to deference under principles of administrative law" (EPA Statement at 2; see also *id*. at 10, 14). At the same time, however, EPA admits that "[q]uestions of contract interpretation . . . are subject to plenary review by the Court" (EPA Statement at 10), "governed by governing principles of contract law" (*id*. at 9 n.18). As EPA thus recognizes, and as shown in GE's Statement, the courts have held that the

provisions of a consent decree between a government agency and a private party are to be interpreted based on contract principles, with no special deference to the agency's interpretation (see cases cited in GE Statement at 2).[1] For that reason, EPA is not entitled to deference in its interpretation of the Consent Decree. In addition, as also shown in GE's Statement, any EPA decision that conflicts with its governing statute or exceeds its authority will be held to be unlawful; and to the extent that EPA's decision rests on a interpretation of an ambiguous statutory provision, its interpretation is entitled to deference only if it is reasonable and only if it has been embodied in a formal way (see GE Statement at 2). Further, an agency decision will be found to be arbitrary and capricious, regardless of deference, if the agency has either (i) relied on factors that it was not permitted to consider or (ii) failed to consider an important aspect of the problem or to consider reasonable alternative ways of achieving its objective (*id*. at 2-3).

C. EPA Was Required to Apply the Specified Remedy Selection Criteria.

EPA has admitted that the Consent Decree requires EPA to apply site-specific remedy selection criteria to select a Rest of River Remedial Action. See, e.g., Statement of Basis for EPA's Proposed Remedial Action for the Housatonic River Rest of River (June 2014) at 25-27. As discussed further in Section II.A below, those site-specific remedy selection criteria do not include state and community acceptance, but do include cost.[2]

D. Cost Is Relevant to Remedy Selection.

EPA asserts that "GE now challenges EPA's Intended Final Decision for one reason – to reduce its costs in cleaning up its PCBs," and that GE's dispute "is driven only by GE's motivation to reduce costs and risks to GE" (EPA Statement at 1, 11). Implicit in EPA's assertions is the suggestion that the consideration of cost is somehow improper. That suggestion is untrue. Cost is one of the Rest of River remedy selection criteria to which EPA agreed in the Consent Decree. The inclusion of cost as a Rest of River remedy selection criterion is consistent with EPA's own guidance on RCRA corrective action. In fact, that guidance states that where multiple potential remedies satisfy the threshold criteria, then "***cost becomes an important consideration*** in choosing the remedy which most appropriately addresses the circumstances at the facility and provides the most efficient use of Agency and facility owner/operator resources" (emphasis added).[3]

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[1] Notably, despite its admission, EPA has failed to cite any of the cases cited by GE that stand for this proposition.

[2] The Rest of River remedy selection criteria (three "General Standards" and six "Selection Decision Factors") are specified in the Permit, which is incorporated into and is part of the Consent Decree. They are: (i) Overall Protection of Human Health and the Environment; (ii) Control of Sources of Releases; (iii) Compliance with Applicable or Relevant and Appropriate Federal and State Requirements (ARARs) (unless waived); (iv) Long-Term Reliability and Effectiveness; (v) Attainment of Interim Media Protection Goals (IMPGs); (vi) Reduction of Toxicity, Mobility, or Volume of Wastes; (vii) Short-Term Effectiveness; (viii) Implementability; and (ix) Cost.

[3] Advance Notice of Proposed Rulemaking on Corrective Action, 61 Fed. Reg. 19432, 19449 (May 1, 1996), which EPA has stated is to be used as guidance for activities under RCRA corrective action permits (64 Fed. Reg., 54604, 54607, Oct, 7, 1999). In this respect, as shown in GE's Statement, EPA's RCRA corrective action guidance is similar

EPA's accusation that GE is focusing unduly on costs thus inverts the reality imposed by the Consent Decree. For example, GE is entitled to emphasize the quarter of a billion dollar cost difference between out-of-state disposal of sediment and soil and on-site disposal of sediment and soil because, as discussed in Section II.A below, both on-site and out-of-state disposal satisfy the other Rest of River remedy selection criteria. For the same reason, EPA is ***not*** entitled to disregard the vast cost disparity between the two otherwise efficacious alternatives. By giving short shrift to cost, EPA not only violates the Consent Decree and its own guidance, but it has failed to account for a crucial aspect of the problem, rendering its decision arbitrary and capricious. *Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

Indeed, when EPA is considering a remedy that will be funded with government money, it appears to give cost greater weight. For the Removal Action for the 1½ Mile Reach of the Housatonic River (upstream of the Rest of River), which was conducted by EPA and funded through a cost-sharing agreement between EPA and GE under the Consent Decree, EPA selected on-site disposal of a majority of the excavated sediments and bank soils over off-site disposal of all excavated material, because, according to EPA, the latter "is over twice as expensive . . . and is not more protective."[4] Another example is the New Bedford Harbor Superfund Site, where, in 2011, when EPA expected to use government money to fund the work, EPA approved the disposal of approximately 300,000 cubic yards of dredged PCB-containing sediments in a Confined Aquatic Disposal (CAD) cell within the harbor itself, noting that use of that cell "would take significantly less time and money" than other alternatives.[5]

E. EPA's Open-Ended Requirements Conflict with the Consent Decree.

GE has challenged several components of EPA's intended final decision that do not specify or evaluate required response actions, but leave that specification for a future determination. These include, for example, the additional response actions that could be required in the event of an exceedance of the PCB Downstream Transport and Biota Performance Standards and the response actions that could be required for future third-party projects on the River or in the floodplain. EPA argues that, by challenging these provisions, GE is seeking "virtually total

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to a requirement of CERCLA's National Contingency Plan (NCP) that a remedy must not only consider costs, but be "cost-effective" (see GE Statement at 7-8 n.6).

[4] EPA, *Request for Removal Action, Housatonic River 1½-Mile Reach at the GE-Pittsfield/ Housatonic River Site, Pittsfield, Massachusetts – Action Memorandum and Exemption from the Statutory $2,000,000 and 12-Month Limits on Removal Actions*, Memorandum from C. Janowski, Remedial Project Manger, to M. Lubber, Regional Administrator (November 21, 2000) at 32.

[5] EPA, *Fourth Explanation of Significant Differences for Use of a Lower Harbor CAD Cell (LHCC), New Bedford Harbor Superfund Site, Operable Unit #1, New Bedford, Massachusetts* (4th ESD) (March 2011) at 12. EPA subsequently entered into a settlement with private parties to fund most of the work. In addition, in 2015, EPA reversed its previous decision to dispose of certain other sediments in new diked shoreline Confined Disposal Facilities (CDFs) and instead required off-site disposal of those sediments; but it explained that, in that case, off-site disposal would be substantially ***less*** costly than construction and use of the new CDFs. EPA, *Fifth Explanation of Significant Differences for the New Bedford Harbor Superfund Site, Upper and Lower Harbor Operable Unit #1, New Bedford, Massachusetts* (5th ESD) (July 2015) at 10.

certainty and finality in the cleanup, with the uncertainties and additional costs all to be borne by the public" (EPA Statement at 1; see also *id*. at 3, 11, 56-58).

EPA's claim is incorrect. GE seeks only the level of "certainty and finality" that it bargained for, and that is expressed in the clear and unambigous terms of the Consent Decree approved by the federal court, which require EPA to identify in its Rest of River Remedial Action decision the specific response actions necessary to meet the Performance Standards established by EPA, and to evaluate each of those response actions under the Rest of River remedy selection criteria. Further, the United States' covenants in the Consent Decree prohibit EPA from requiring GE to take any future additional response actions not specified in, and evaluated prior to, that decision unless EPA later determines that the Rest of River Remedial Action is no longer protective of human health or the environment based on new information or conditions (CD ¶¶ 161, 162, 163). GE seeks only to hold EPA to that commitment and to avoid a situation in which EPA has unfettered discretion to require GE to implement future response actions without making any such determination.

EPA claims that it could not, and was not required to, apply the Rest of River remedy selection criteria to these future response actions since those actions are not currently known (*id*. at 56-57). In fact, EPA is explicitly required to identify and evaluate "the appropriate corrective measures necessary to meet the Performance Standards" (Permit Condition II.J). Once it has done so – but only once it has done so – EPA can, if necessary, modify the specified corrective measures in a manner that is "consistent with the scope" of the already-identified response action and does not modify the Performance Standards (CD ¶ 39.a). That contractual authority to modify existing response actions, however, is strictly limited and does not include the power to create or to impose the obligation to perform entirely new corrective measures. To the contrary, in order to require additional response actions that are not identified in the modified Permit and thus have not been evaluated under the specified remedy selection criteria, EPA is required to implement the covenant "reopeners" – i.e., to find that the contingency constitutes new information or conditions indicating that the selected remedial action is no longer protective of human health or the environment, and that the additional response actions are related to that determination (CD ¶¶ 162, 163). Otherwise, EPA would have the unfettered discretion that the Consent Decree was designed to avoid.[6] If such a reopener determination is made (and upheld in any dispute), GE would still be required to implement the response actions and thus the costs would ***not*** be shifted to or have to be "borne by the public," as EPA asserts.

F. EPA Cannot Justify Its Remedy on the Ground that It Could Have Required More.

EPA attempts to defend numerous components of its intended decision on the basis that it considered and rejected more extensive, stringent, and/or costly alternatives (EPA Statement at

[6] EPA's efforts to justify its open-ended requirements by reliance on Paragraph 39.a as well as Paragraph 40 of the Consent Decree (EPA Statement at 57, 62) are addressed further in Section II.F below. In addition, EPA attempts to support these requirements on the ground that it "has already compromised over $100 million in response costs as a result of the Decree's limitations on EPA's right to recover certain categories of capped response costs" (*id*. at 59). The Consent Decree's caps on cost recovery have absolutely nothing to do with the validity of the open-ended requirements in EPA's intended final decision.

10, 30, 36, 43, 53, 61, 66-67, 68, 71, 73). EPA was required to make a comparative evaluation of various alternatives based on the Rest of River remedy selection criteria. However, for a component of the remedy that does not satisfy those criteria or does not meet other applicable legal requirements, it is no justification for EPA to say that it rejected other, more stringent alternatives that would likewise not have met those requirements – i.e., to say, in effect, that "it could have been worse."

For example, with respect to the intended out-of-state disposal requirement, EPA claims that it "has hardly selected the most expensive or the most aggressive remedy under consideration" because it "also considered alternative options involving treatment of PCB contamination," which "are more costly than off-site disposal" but "were rejected" (*id*. at 53). However, EPA's claim omits the crucial information that, unlike on-site disposal, the rejected treatment alternatives (chemical extraction and thermal desorption) did ***not*** satisfy the other Permit criteria. In fact, EPA found that they both failed to satisfy the "Long-Term Reliability and Effectiveness" criterion because chemical extraction has never "been demonstrated at full scale on sediment and soil representative of those in the Rest of River" and thermal desorption has been used "only in limited cases for treatment of sediment" (EPA Statement of Basis at 37). Therefore, for reasons wholly apart from cost, EPA could not have selected either of the more expensive alternatives.

II. SPECIFIC POINTS

As noted above, given time constraints, this section of GE's Reply addresses EPA's claims on a number, but not all, of the disputed issues. GE adheres to the positions in its Statement on all disputed issues.

A. EPA's Out-of-State Disposal Requirement Conflicts with the Consent Decree's Remedy Selection Criteria and Is Unlawful.

As shown in GE's Statement (Section I), EPA's intended requirement that GE must dispose of all removed sediment and soil at out-of-state disposal facilities (as demanded by the Commonwealth of Massachusetts) conflicts with the Rest of River remedy selection criteria in the Consent Decree and is arbitrary and capricious because out-of-state disposal: (a) would be no more protective of human health or the environment than disposal in a secure on-site upland disposal facility constructed outside the 500-year floodplain; (b) would cost far more (approximately a quarter of a billion dollars more) than on-site disposal; and (c) would not better satisfy any other Rest of River remedy selection criteria. GE pointed out in its Statement that EPA has admitted that on-site disposal would be just as safe as out-of-state disposal and has previously approved on-site disposal at this and other sites in Massachusetts. GE further demonstrated that the various concerns that EPA had raised about on-site disposal in an attempt to support its requirement – including state and local opposition, state regulations, and various concerns about effectiveness and reliability – are all make-weight efforts that are unsupportable and do not justify that requirement. EPA's responses in its Statement do not undermine those basic points, as shown below.

1. EPA fails to account for the vast difference in cost.

EPA acknowledges that out-of-state disposal would be substantially more costly than on-site disposal – by $200 to $300 million (EPA Statement at 53) – but attempts to ignore the dispositive impact of that extra cost on application of the Rest of River remedy selection criteria. For the reasons given in GE's Statement, on-site disposal satisfies all of the other Rest of River remedy selection criteria; and, as explained in the following subsections, EPA cannot now contradict its own prior statements and actions to suggest that out-of-state disposal is superior on grounds of protectiveness, compliance with applicable or relevant and appropriate requirements (ARARs), implementability, or any of the other, non-cost remedy selection criteria. Given the overall comparability of out-of-state disposal and on-site disposal in terms of all of the other Rest of River remedy selection criteria, and given the substantially lower costs of on-site disposal, the application of the criteria compels the selection of on-site disposal. If EPA blatantly ignores the result compelled by the Rest of River remedy selection criteria, not to mention its own guidance (see Section I.D above), it completely ignores an important aspect of the problem, making its decision arbitrary and capricious as a matter of law. *Motor Vehicle Mfrs. Ass'n*, 563 U.S. at 43.

2. EPA improperly relies on "community and state opposition" to on-site disposal.

It is also arbitrary and capricious for EPA to base an action on factors that it was not intended or instructed to consider. *Id.* The selection of out-of-state disposal would violate that proscription as well because, according to EPA's Statement, it was based in large part on "community and state opposition" to on-site disposal. Indeed, EPA's Statement sends the clear message that local opposition was ***the*** deciding factor here: fully half of its discussion of the disposal remedy is devoted to this putative "factor" (EPA Statement at 44-50).

The challenge for EPA is that "community and state opposition" is ***not*** a legitimate factor. EPA has long and consistently acknowledged that its selection of a remedial action for the Rest of River is governed by the nine remedy selection criteria enumerated in Section II.G of the RCRA Permit and incorporated into the Consent Decree. See, e.g., EPA Statement of Basis at 25 ("EPA used nine criteria that were established in the Permit to compare alternatives, and propose and select a final cleanup plan"); and EPA Revised Comparative Analysis of Alternatives at 11 ("The criteria for evaluation of remedial alternatives for the Rest of River are specified in Part II, Section G, of the Reissued RCRA Permit"). "Community and state opposition" is ***not*** one of the nine enumerated criteria. This is not an accident. As EPA itself has pointed out (*id.*), the Rest of River remedy selection criteria "are similar, but not identical to, evaluation criteria delineated in the National Contingency Plan (NCP)," 40 C.F.R. § 300.430(e)(9)(iii) & (f)(1)(i). The primary difference between the Rest of River remedy selection criteria and those specified in the NCP is that "state and community acceptance" ***are*** identified in the NCP (albeit only as tertiary, "modifying" criteria) (*id*. § 300.430(f)(1)(i)(C)) but ***not*** in the Consent Decree.

For interpretive purposes, the Consent Decree, including the Permit, is a contract. *United States v. ITT Continential Baking Co.*, 420 U.S. 223, 236 (1975); *Meadow-Green Wildcat Corp.*

v. Hathaway, 936 F.2d 601, 604-5 (1st Cir. 1991). This means both (i) that EPA's self-serving interpretation will not be accorded any deference, *Quinn v. City of Boston*, 325 F.3d 18, 34 (1st Cir. 2003), and (ii) that the Consent Decree must be construed according to familiar principles of contract interpretation (as EPA admits). The absence of state and community acceptance from the Rest of River remedy selection criteria is dispositive; when a contract expressly says that X and Y are pertinent considerations, it effectively says that Z is not. *Institut Pasteur v. Cambridge Biotech Corp.*, 104 F.3d 489, 495 (1st Cir. 1997) ("when certain matters are mentioned in a contract, other similar matters not mentioned were intended to be excluded"). The exclusionary import of the omission is especially clear here, since the Consent Decree, including the Permit, was negotiated against the backdrop of the existing remedy selection regulations in the NCP that include state and community acceptance as selection criteria.

EPA argues that the Consent Decree nevertheless authorizes it to consider state and community acceptance as aspects of "implementability," which is an enumerated criterion. Specifically, EPA contends that because opponents of on-site disposal could try to block a remedy that includes such a component – such as by appealing the remedy or potentially passing or seeking legislation or regulations to bar on-site disposal – such opposition affects the ability or timing to carry out the remedy and thus its implementability (EPA Statement at 44-45). The Agency also claims that state and community acceptance or opposition are manifested in three enumerated sub-factors of implementability: "coordination with other agencies," "regulatory and zoning restrictions," and "availability of suitable on-site or off-site . . . disposal facilities" (*id*. at 45).

EPA's "implementability" argument is ill-conceived because it tries to force a square peg into a round hole. Once again, a comparison to the NCP makes this clear. The parties to the Consent Decree knew that, under the NCP, "state and community acceptance" are modifying criteria for selection of CERCLA remedies, while "implementability" is a separate, balancing criterion (40 C.F.R. § 300.430(f)(1)(i)). The parties knew, moreover, that EPA's guidance on RCRA corrective permits (e.g., 61 Fed. Reg. 19432, May 1, 1996) does not suggest that "implementability" encompasses consideration of state and community opposition. If implementability and state/community acceptance are distinct criteria under the NCP, then the omission of the latter from the Consent Decree criteria is indicative of the parties' intent to exclude it; nothing in the Consent Decree permits EPA (or would encourage the First Circuit) to assume that the parties had agreed to silently *conflate* two criteria that had always been explicitly stated and applied separately in the NCP.

It is worth noting, moreover, that the NCP defines "implementability" in terms of "technical feasibility" and "administrative feasibility," the latter of which includes "activities needed to coordinate with other offices and agencies and the ability and time required to obtain any necessary approvals and permits from other agencies (for off-site actions)" (40 C.F.R § 300.430(e)(9)(iii)(F)). There is no mention of state and community acceptance in that definition, particularly for on-site actions, which are exempt under CERCLA § 121(e)(1) from the need for state and local approvals and permits. Likewise, although the Consent Decree similarly defines "implementability" to include "coordination with other agencies," that is not an operative

consideration for the construction of an on-site disposal facility, given the statutory and Consent Decree (¶ 9.a) exemption from the need for state and local approvals and permits.

EPA cites two other sub-factors in the definition of "implementability." The reference to "regulatory and zoning restrictions" is addressed in Section II.A.4 below in connection with EPA's claim regarding regulatory requirements. As for the reference to "availability of suitable on-site or off-site . . . disposal facilities," EPA asserts that this sub-factor is relevant "because if all on-site landfills are strongly opposed by the community, the suitability of those sites is compromised" (EPA Statement at 45). That reasoning is circular at best; given the on-site permit exemption in CERCLA and the Consent Decree, local opposition to an on-site disposal facility would not compromise the *suitability* of the selected sites.

EPA's additional claim that state and community opposition undermines implementability because the opponents could appeal the remedy or potentially pass or seek legislation or regulations to bar on-site disposal is also without merit. The Consent Decree expressly allows for appeals of the Rest of River Remedial Action by the Commonwealth of Massachusetts or others and thus contemplates the possibility that opponents of that remedy could attempt to derail or delay it through judicial action. It would defy principles of contract interpretation for EPA to be allowed to use the provisions of the Consent Decree regarding appeals to affect the "implementability" of the remedy and thus trump the application of the Rest of River remedy selection criteria. Finally, the possibility of political action is not a realistic threat to implementability because of the on-site permit exemption under CERCLA and the Consent Decree. Even if opponents were able to secure legislation or regulations in an effort to throw a wrench into the works, their *post hoc* efforts at interference would be thwarted by that exemption and thus would not affect the implementability of on-site disposal.

EPA argues in the alternative that, even if the Permit does not authorize it to consider state and community opposition, it is still free to do so because "the Permit does not limit EPA to [the enumerated] criteria in selecting its remedy" (*id*. at 45). This is untrue for reasons already stated: For interpretive purposes, the Consent Decree, including the Permit, is a contract; and "when certain matters are mentioned in a contract, other similar matters not mentioned were intended to be excluded." *Institut Pasteur*, 104 F.3d at 495.

Even if the Consent Decree were ambiguous in this regard, EPA's position would be negated by the fact that neither it nor GE has ever interpreted the Consent Decree or the Permit to give the Agency free rein in its evaluation of potential remedies. To the contrary, as the parties have been working through the laborious processes of defining and assessing potential remedies for the Rest of River, EPA has consistently taken the position that "[t]he criteria for evaluation of remedial alternatives for the Rest of River are specified in" Section II.G of the Permit (EPA Revised Comparative Analysis of Alternatives at 11). As a matter of law, "there is no surer way to find out what parties meant, than to see what they have done." *TLT Construction Corp. v. RI, Inc., 484 F.3d 130, 136 (1st Cir. 2007)*.

Finally, there is no merit to EPA's contention that, even if community and state opposition are not part of implementability, EPA could consider such opposition as part of its obligation to

consider public comments on the proposed remedy (EPA Statement at 45-47). In essence, EPA is arguing that community and state ***opposition*** must be remedy selection factors lest the extensive provisions for community ***participation*** in the remedy-selection process be nullified. EPA has conjured up a non-existent conflict here. The duty to consider public comments cannot override the substantive remedy selection criteria. When there are criteria in place for selection of the remedy, the public's comments should address the proper application of those criteria, rather than suggesting alternate criteria. Thus, even if EPA cannot rely on public acceptance or opposition as a selection factor, public participation serves a valid and valuable purpose: it can inform – and presumably has informed – EPA's consideration of the contractually relevant criteria by adding the public's insights about those criteria to those offered by EPA, GE, and the other parties to the Consent Decree. Consideration of public comments, however, does not authorize EPA to override the substantive remedy selection criteria, and it certainly does not give the commenters an effective veto over a remedy decision that must be governed by specific, agreed-upon, court-approved criteria.

3. On-site disposal is equally protective.

In its Statement, EPA states that it "does favor off-site disposal in terms of protectiveness" (EPA Statement at 43). However, its asserted support for that claim does not withstand analysis.

EPA no longer contends, as it did previously, that on-site disposal would create a risk of PCB leaks from trucks carrying leachate from the on-site disposal facility. However, it continues to claim that an on-site disposal facility would have the potential for PCB releases to the Housatonic watershed if it is not operated or maintained properly over the life of the facility, and thus would have to rely heavily on proper long-term operation, maintenance, and monitoring (OM&M) activities (*id*. at 51). That claim is spurious. Any engineered disposal facility, whether it is on-site or out-of-state, has the potential for releases and thus requires long-term OM&M.

EPA contends that an on-site disposal facility here would involve a greater risk of releases than an out-of-state disposal facility due to "the poor suitability of the proposed locations given such factors as soil permeability, proximity to the Housatonic watershed, and/or drinking water sources" (*id*.). However, the only support it provides for that contention is that the potential locations identified by GE would not meet certain default siting criteria under EPA's Toxic Substances Control Act (TSCA) regulations relating to soil permeability and hydrologic conditions (*id*). As discussed further below, EPA frequently makes regulatorily authorized risk-based determinations that an-site disposal location that does not meet those criteria would not pose a risk to health or the environment, when engineered safeguards are incorporated into the facility to ensure comparable protection (see Section II.A.4 below). An on-site disposal facility here would incorporate such safeguards, including a synthetic membrane liner with equivalent permeability to the low soil permeability criterion of the regulations, a double liner and leachate collection system to prevent impacts to groundwater and surface water, and a groundwater monitoring network. EPA has made no determination that a facility containing such safeguards would not be protective of human health and the environment; and in fact its prior risk-based determinations or outright waivers at other sites (discussed below) confirm EPA's position that such a facility would be protective.

EPA also asserts that "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" (EPA Statement at 43). EPA does not and cannot explain, however, why this difference would make the on-site disposal facilities unprotective.[7] Moreover, EPA's claim relies on the unsupported assumption that there is unlimited out-of-state landfill capacity to manage remediation wastes, including the one million cubic yards of soil and sediment from the Rest of River. In fact, once the existing landfill capacity is exhausted, a "new landfill in an area with no known contamination" would be required somewhere.[8]

EPA's unsupported assertions and assumptions are inconsistent not only with its obligations under the Consent Decree, including the Permit, but also with the rationale behind Section 104(c)(9) of CERCLA. That provision requires that, before adopting any remedial action under Section 104 of CERCLA, the state in which the remedial action will occur must assure that it has "adequate capacity" for the treatment and disposal of hazardous wastes that are reasonably expected to be generated within the state for the following 20-year period. As previously described by EPA, this provision was enacted because "Congress was concerned that certain states, because of political pressure and public opposition, were not able to create and permit sufficient facilities within their borders to treat and securely dispose of (or manage) the amounts of waste produced in those states."[9] EPA has succumbed to the very "not-in-my-backyard" (NIMBY) pressures addressed by CERCLA and EPA's guidance in spite of the requirements of

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[7] EPA's argument here may be a variant of its prior argument that an on-site disposal facility would cause a permanent alteration of the habitat at the site of the facility. However, as shown in GE's Statement (Section I), the facility at one of the identified potential disposal sites, the Woods Pond Site, would be located within an already disturbed area (used as a sand and gravel quarry), where, in fact, the post-use planting of the disposal facility area with grass would result in a clear ***improvement*** of the habitat. The facilities at the other two identified sites would be located within areas that are not subject to any special protections and are not part of the Upper Housatonic Area of Critical Environmental Concern (ACEC). Moreover, these disposal facilities would not include any sensitive floodplain or wetland areas or rare species habitat of the sort that would be adversely impacted by EPA's sediment and floodplain remedy.

[8] There is currently a limited supply of hazardous and non-hazardous waste landfill disposal capacity. EPA's latest National Capacity Assessment Report identifies the current limited hazardous waste disposal capacity at 89 million tons for the next 25 years. *National Capacity Assessment Report: Capacity Planning Pursuant to CERCLA Section 104(c)(9)* (March 25, 2015) at 7. Although it says that there is currently an adequate supply, it also states that "the industry is consolidating and restructuring as indicated by the existence of fewer landfills, incinerators and energy recovery facilities permitted under RCRA Subtitle C requirements than reported in the 1993 CAP data submissions. ***The dynamic hazardous waste market and the uncertainty of the permitting process make it difficult to guarantee that the current surpluses of hazardous waste management capacity will continue to exist***" (*id*. at 12) (emphasis added).

[9] EPA, *Assurance of Hazardous Waste Capacity, Guidance to State Officials*, OSWER Directive 9010.00 (December 1988) at 2. That guidance went on to quote from the Senate Report underlying Section 104(c)(9), which stated: "While everyone wants hazardous waste managed safely, hardly anyone wishes it managed near them, This is the NIMBY syndrome (not in my backyard). Yet, if the [RCRA] and Superfund programs are to work – if public health and the environment are to be protected – the necessary sites must be made available." S. Rep. No. 11, 99th Cong., 1st Sess. (1985) at 23.

the Rest of River remedy selection criteria and the ability to implement on-site disposal under the CERCLA on-site permit exception.

In an attempt to avoid the precedential implications of its prior approvals of on-site disposal facilities at this and other sites, EPA offers a number of distinctions that fail to undermine GE's basic point. As discussed in GE's Statement, in the Consent Decree, EPA and the Commonwealth approved the use of on-site disposal facilities for sediment and soil from other portions of this Site, including the upper two miles of the Housatonic River. (As previously noted, those facilities were used by EPA in its 1½ Mile Reach Removal Action, as well as by GE.) In addressing this precedent, EPA asserts that the on-site disposal facilities approved in the Consent Decree consisted of either an existing landfill (the Hill 78 On-Plant Consolidation Area [OPCA]) or a new landfill in an adjacent area (the Building 71 OPCA), whereas the potential disposal facility locations identified by GE for the Rest of River would be located in areas with no prior known contamination (EPA Statement at 55). As noted above, however, EPA does not and cannot explain why this difference would make the latter facilities unprotective. EPA also notes that those landfills had a limited footprint with a smaller capacity than the proposed Rest of River disposal facility (*id*.). Again, that factor does not affect the protectiveness of the facility. EPA further attempts to distinguish its prior statements supporting on-site disposal (*id*. at 55-56); but it can't avoid its prior specific determination that on-site disposal of PCB-containing soils and sediments at this Site, including in a newly constructed landfill (the Building 71 OPCA), "will not pose an unreasonable risk of injury to health or the environment" (CD Appendix D at 41). EPA has not, and cannot, offer any evidence to the contrary now.

In addition, EPA quibbles with a number of the examples cited in Exhibit A to GE's Statement of sites where on-site (or other local) disposal of removed PCB-containing sediment and/or soil has been a component of the remedy (EPA Statement at 54-55 & Table 2). In some cases, those quibbles amount to slight differences in removal volumes (on which EPA may have obtained more up-to-date information based on verbal communications with the EPA project managers). In other cases, EPA criticizes GE for "stretch[ing] the term 'on-site disposal' beyond its logical limits" by "lump[ing] local landfills together with true on-site disposal" (*id*.). However, GE's table in Exhibit A made clear that it was listing "Sites Where On-Site ***or Local*** Disposal . . . Has Been Part of EPA-Selected Remedy" (emphasis added), which is appropriate given that local disposal, even if outside of the specific site boundary, is very different from EPA's current requirement of distant out-of-state disposal. Finally, EPA's statement that, "[f]or nearly half of the Sites listed in GE's table, only a portion of the waste was disposed on-site while the remainder was shipped off-site" (*id*. at 55) does not undermine the fact of EPA's approval of on-site (or local) disposal for at least a portion of the waste.[10] In short, EPA's criticisms do not

[10] In purported support of its statement, EPA gives the example that "at Lower Fox River more than 95% of the contaminated sediment and soils were disposed off-site at TSCA and municipal landfills" (EPA Statement at 55). In fact, the great majority of that material was disposed of at a local municipal landfill close to (within one-half hour of) the site, which is far different from the long-distance out-of-state disposal that EPA would require here.

change the basic fact that, as EPA admits in its Table 2, EPA has previously approved on-site disposal at numerous sites, including in Massachusetts.[11]

***4. On-site disposal meets regulatory requirements*.**

EPA also argues that an on-site disposal facility would not meet certain regulatory requirements. However, EPA cannot rely on ARARs as a purported basis for rejecting on-site disposal at the potential locations identified by GE, because, as shown below, there are no ARARs that would prevent on-site disposal at the Rising Pond Site or the Forest Street Site, and the only such restriction at the Woods Pond Site (the prohibition on disposal in an Area of Critical Environmental Concern [ACEC]) is one that should not be applied to the quarry at that location.

EPA's first bite at the regulatory apple is a discussion of its TSCA regulations, although it does not claim that they would constitute an ARAR (*id*. at 51). Those regulations establish certain technical criteria for landfills used for the disposal of materials containing PCBs at concentrations at or above 50 ppm (equivalent to 50 mg/kg) (40 C.F.R § 761.75(b)). They also allow EPA to either: (a) provide risk-based approval of an alternate disposal method if EPA finds that such method will not pose an unreasonable risk of injury to health or the environment (*id*., § 761.61(c)); or (b) waive any of these requirements that EPA finds is not necessary to protect against an unreasonable risk of injury to health or the environment (*id*. § 761.75(c)(4)). Construction and operation of an on-site disposal facility at any of the locations identified by GE would meet all of the siting, design, and operation requirements of § 761.75 other than those for which comparable protection would be provided and that are typically the subject of either a risk-based approval or a waiver, as described below.[12]

- First, although, as EPA notes, the existing soils at each of these potential locations would not meet the requirements in § 761.75(b)(1) regarding the permeability and characteristics of the existing soil, the facility would have a synthetic membrane liner with equivalent low permeability, as specifically allowed under § 761.75(b)(2) for places where the existing soil does not have the characteristics specified in § 761.75(b)(1).

[11] For example, at the New Bedford Harbor Site, where EPA adopted a remedy involving the disposal of a large portion of the PCB-containing sediments in an on-site CAD cell within the harbor itself, EPA determined that such on-site, in-water disposal would "not result in an unreasonable risk of injury to health or the environment" (4th ESD, 2011, Att. B). In its later 2015 decision at that site, which prescribed a combination of permanent use of a pilot on-site shoreline CDF and off-site disposal, EPA stated: "Disposal via CDFs or off-site disposal ***are both equally protective of human heath and the environment***, because under either disposal approach the contaminated sediment driving the unacceptable risks would be removed, and exposure pathways would be eliminated or controlled. In addition, both disposal alternatives are compliant with applicable or relevant and appropriate requirements" (5th ESD, 2015, at 8; emphasis added). If these conclusions are true regarding on-site disposal within a waterbody or on the shoreline, they are certainly true for the disposition of similar materials in a secure on-site upland disposal facility outside the floodplain at the present Site.

[12] It also bears noting that other locations meeting these requirements could be identified and there is no Consent Decree requirement that GE must identify any such potential locations yet, just as EPA has not yet identified the transloading location(s) necessary for its proposed out-of-state shipment remedy.

- Second, while these potential locations may not meet one or more of the requirements of § 761.75(b)(3) relating to hydrological conditions (e.g., that the bottom of the liner must be at least 50 feet from the historical high water table, that groundwater recharge areas should be avoided, and that there be no hydraulic connection between the site and a surface waterbody), the facility would have a double liner and leachate collection system to prevent impacts to groundwater (and ultimately surface water), as well as a groundwater monitoring network, to provide comparable protection.

- Third, while the construction of a disposal facility at the Forest Street Site (but not the other potential locations) would not meet the requirement of § 761.75(b)(5) that a landfill be located in an area of low to moderate relief to minimize erosion and landslides or slumping, the facility would have engineered measures in place (e.g., slope benching, berm buttressing, intermittent erosion breaks) to prevent such conditions from occurring.

Even if one or more of these specific requirements were not met, the disposal facility would comply with the TSCA regulations by virtue of an authorized EPA determination that the facility meets the substantive requirements for a risk-based approval of the facility location and design under § 761.61(c) or for a waiver under § 761.75(c)(4) – i.e., that the facility would not pose an unreasonable risk of injury to health or the environment – given the safeguards that would be included in the design to address each of the grounds for concern giving rise to the regulatory requirements. EPA has made such a determination for on-site TSCA disposal facilities at both this Site and numerous other sites, as shown by the examples in Table 1;[13] and it would be arbitrary for EPA to refuse to do so here. In fact, that may be why EPA does not specify these requirements as ARARs that would not be met.

EPA does contend that certain other regulatory requirements constitute ARARs that would not be met for an on-site disposal facility at one or more of the potential locations identified by GE (EPA Statement at 52). Again, those contentions do not provide a basis for rejecting on-site disposal.

- EPA claims that on-site disposal at the Woods Pond Site would require a waiver of the provisions in the Massachusetts hazardous waste and solid waste siting regulations that prohibit a disposal facility in an ACEC. As shown in GE's Statement (Section I), and as EPA recognizes in its ARARs table in the intended final decision (Attachment C to the intended final decision at 12), the solid waste regulations do not apply to wastes that have PCB concentrations at or above 50 mg/kg or are commingled with such materials – which would cover the sediment and soil that would be subject to on-site disposal in this case. The hazardous waste regulations' prohibition on an on-site disposal facility in an ACEC would potentially apply to the Woods Pond Site (although not to the other two sites) because that potential location is located within the boundaries of the ACEC. However, that prohibition

[13] For example, for the Building 71 OPCA at this Site (which was authorized to receive TSCA-regulated material), EPA specifically determined, pursuant to § 761.61(c), that even though the technical criteria regarding permeability of the soils and hydrologic conditions were not met, that facility would not pose an unreasonable risk of injury to health or the environment (CD Appendix D at 41). For other examples, see Table 1.

should not be applied to that potential location because it is an industrial site where on-site disposal of sediment and soil would not affect any of the resources of the ACEC.

- EPA also cites federal and state wetlands regulations as ARARs, but recognizes that they may be relevant only to the Forest Street Site (EPA Statement at 52), since the operational footprints of the disposal facilities at the other two potential locations identified by GE would not be located in, and would not affect, any regulated wetlands, as shown on Figures 2 and 4 of GE's October 2014 Comments on EPA's proposed remedy. Even for the Forest Street Site, contrary to the implications of EPA's assertion, the impact would be limited. The operational footprint of the disposal facility at that potential location would require construction of an access road that would involve the crossing of a small stream in the southern portion of the site; and a part of the disposal facility would be located within the 100-foot buffer zone and the 200-foot Riverfront Area of that stream, which are subject to the Massachusetts Wetlands Protection Act regulations. However, given the limited extent of these impacts, EPA could readily find, as it did in the discussion of the EPA-cited regulations in the ARARs table in its intended final decision (Attachment C), that the work would be conducted in accordance with the substantive requirements of these regulations, thus avoiding the need to waive these ARARs.[14]

- For the Rising Pond Site, EPA contends that that potential location abuts an area of Priority Habitat for the state-listed wood turtle, and it claims, without any basis, that "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" (EPA Statement at 52). That is another example of EPA's arbitrary and capricious evaluation of on-site disposal. The operational area of the disposal facility at the Rising Pond Site was specifically designed to be located outside of and to avoid any impacts on the Priority Habitat of the wood turtle, unlike EPA's proposed soil and floodplain remedy for the Rest of River which would impact over 200 acres of state-listed wood turtle habitat.[15]

- Finally, EPA claims that the potential locations identified by GE may run afoul of a prohibition in the Massachusetts hazardous waste regulations on siting a disposal facility within 1000 feet of an existing private drinking water well, and it notes that the Woods Pond Site is within 1000 feet of such a well (*id*.). That assertion ignores that fact that, as shown in GE's Statement and as EPA appears to recognize in its intended final decision (Attachment C at 11-12), the state hazardous waste regulations exempt facilities that manage PCB waste in compliance with EPA's TSCA regulations (as the facilities here would do, as discussed above), with the exception of the prohibition on hazardous waste management facilities in an ACEC (discussed separately above). Thus, the prohibition in the hazardous waste

[14] EPA also asserts at one point that on-site disposal would require waiving regulations for the protection of floodplains (EPA Statement at 3). That is wrong. At all of the identified disposal sites, the disposal facilities would be located outside the 500-year floodplain.

[15] See GE's Revised Corrective Measures Study Report (2010) at Appendix L, Part A, estimating that Alternatives SED 9 and FP 4 (from which EPA's intended final remedy was derived) would together affect approximately 240 acres of designated wood turtle Priority Habitat.

regulations on siting a disposal facility within 1000 feet of a drinking water well would not apply.[16]

In conclusion, EPA cannot rely on ARARs as a basis for rejecting on-site disposal. There are no ARARs that would prevent on-site disposal at the Rising Pond Site or the Forest Street Site, and the only such restriction at the Woods Pond Site (the prohibition on disposal in an ACEC) is one that should not be applied to the quarry at that site, especially given the short shrift that EPA gives to other ACEC prohibitions when they interfere with EPA's plans.

5. Short-term effectiveness does not justify out-of-state disposal.

In addressing the criterion of short-term effectiveness, EPA argues that GE has failed to recognize that use of rail for out-of-state transport will mitigate greenhouse gas (GHG) emissions and reduce local truck traffic (EPA Statement at 53). Again, that is misleading. GE's October 2014 Comments showed that: (1) out-of-state transport by rail would result in considerably greater GHG emissions (approximately 70,000 tonnes) than on-site disposal (6,600 to 36,000 tonnes, depending on the disposal facility site used); and (2) out-of-state disposal by rail and on-site disposal would involve comparable amounts of on-site truck traffic – approximately 103,000 total truck trips for each.

* * *

In short, EPA's Statement presents no supportable bases for concluding that on-site disposal would not be comparable to out-of-state disposal in terms of protectiveness and the other non-cost Rest of River remedy selection criteria. At the same time, EPA admits that out-of-site disposal would cost far more. As a result, application of the agreed-upon remedy selection criteria requires selection of on-site disposal.

B. EPA's Remedy Is Not Necessary to Protect Human Health via Fish Consumption.

GE demonstrated in its Statement (Section II.A) that, even accepting EPA's toxicity values for PCBs, the Agency's intended Rest of River Remedial Action cannot be justified under the Rest of River remedy selection criteria as necessary to protect human health because alternative remedies that are less extensive, disruptive, and costly would also achieve protective levels.

With respect to fish consumption, EPA's Statement presents a discussion of the human health risks estimated by its Human Health Risk Assessment (HHRA) for the fish consumption pathway (EPA Statement at 17-18). That discussion is not pertinent to the issues here. Given that ***no*** remedial alternative, including its intended remedy, would achieve fish PCB

[16] EPA has not cited the Massachusetts solid waste site assignment regulations (apart from their ACEC prohibition) in its campaign to prevent on-site disposal. That is appropriate since, as noted above and EPA admits (Attachment C to its intended final decision at 12), those regulations do not apply to the kinds of wastes that would be placed in the on-site disposal facilities here – i.e., those that contain PCB concentrations at or above 50 mg/kg or are comingled with such materials (which are defined as hazardous waste under state regulations and are subject to TSCA). Indeed, the solid waste site assignment regulations expressly provide that they do not apply to facilities that manage hazardous waste (310 CMR 16.01(4)(a)).

concentrations that would allow unrestricted fish consumption (based on EPA's assumptions) in the Massachusetts portion of the River, EPA has selected a remedy that would achieve a lesser fish consumption goal in all Massachusetts reaches except one (Reach 5B) within the model projection period. That lesser goal is an IMPG of 1.5 mg/kg in fish fillets based on EPA's Central Tendency Exposure (CTE) assumptions, derived from a probabilistic risk analysis set forth in the HHRA, and based a non-cancer hazard index (HI) of 1 for adults. However, as shown in GE's Statement and its prior Comments, application of EPA's model indicates that less extensive remedies would achieve the same probabilistic CTE goal for fish consumption in Massachusetts to a similar extent (see also Sections II.D. and II.E below).[17] As a result, the fish consumption rationale does not support EPA's selection of its intended final remedy.

C. EPA Has Not Adequately Assessed the Environmental Harm from its Remedy or Balanced Such Harm Against the Risks.

GE also demonstrated in its Statement (Section II.B) that EPA's intended Rest of River Remedial Action would not meet the Rest of River remedy selection General Standard requiring "overall" protection of the environment because it would cause substantial, extensive, and enduring harm to the Rest of River ecosystem, particularly in the biologically unique stretch between the Confluence and Woods Pond Dam (the Primary Study Area or PSA), and that damage would be greater than any ecological benefit that would result from the remedy. GE's Statement summarized the extensive adverse ecological impacts of EPA's intended final decision that had been discussed in detail in GE's October 2014 Comments on the proposed remedy and the attachments prepared by ecological experts. Further, in addressing EPA's conclusion that any such impacts will be short-term since (in its opinion) all affected habitats can be restored to their pre-remediation condition, GE explained that that conclusion is unsupported and unsupportable, as demonstrated in detail in GE's October 2014 Comments and the attachments by experts.

In its Statement, EPA argues that GE has underestimated the adverse ecological risks of PCBs in the Rest of River, as evaluated in EPA's Ecological Risk Assessment (ERA) (EPA Statement at 21-23 & Attachment C), and has overestimated the adverse ecological impacts from implementation of its intended remedy, which EPA believes will be only short-term (*id*. at 23-26 & Attachment D). It thus concludes that "the long-term benefits of the remedy far outweigh the short-term impacts" (*id*. at 15; see also *id*. at 24), and that its intended remedy "provides the best balance in terms of reducing residual risk and minimizing long-term ecological impacts" (*id*. at 23; see also *id*. at 26). However, EPA has not specified in any detail, apart from assertions that restoration will be successful, the basis on which it has concluded that GE's detailed analysis of the adverse ecological impacts of EPA's proposed Rest of River Remedial Action was incorrect or explained why EPA has reached the opposite conclusion regarding those adverse impacts.

[17] For Connecticut, GE's Statement and prior Comments also showed, based on extrapolations from EPA's model, that there would be no significant differences between EPA's remedy and remedies involving much less sediment removal in terms of predicted concentrations of PCBs in fish in Connecticut.

In an effort to support its assertion that the negative ecological impacts of the remedy will be less than GE and its experts have shown and will be only short-term, EPA relies on the facts that: (1) the remedy is designed to avoid or limit impacts to habitats designated by the Massachusetts Division of Fish and Wildlife (MassDFW) as "Core Area 1" and to limit riverbank excavation work; (2) the remedial work will be phased over time; and (3) GE will be required to submit plans to restore the affected habitats to their pre-remediation conditions, thus avoiding any long-term impacts (*id*. at 24-25). Taking those claims in reverse order, the fact that GE will be required to submit restoration plans does not mean that implementation of the restoration activities will in fact be successful in returning the affected habitat to their pre-remediation conditions. In fact, as shown in Attachment D to GE's October 2014 Comments, renowned experts, Professors Brooks, Calhoun, and Hunter, have concluded that it will not be successful in achieving that objective.

EPA has not conducted any detailed analysis of the specific types of restoration measures that could be used or the likelihood that they could avoid long-term adverse impacts. It does rely on the supposed success of restoration at certain other sites (the Loring Air Force Base in Maine and the Clark Fork River in Montana) (*id*. at 25), as well as in areas adjacent to the upper two miles of the Housatonic River (*id*., Attachment D at D-1 – D-2, D-3, D-6). However, none of those example areas is comparable to the Rest of River ecosystem, particularly in the PSA.[18] For the Rest of River, EPA's "evaluation" consists largely of assertions that restoration measures will be able to return the habitats to their pre-remediation condition. For example, in addressing the critical buffer zones around vernal pools, EPA's "analysis" consist solely of a conclusory statement that "EPA believes that these short-term impacts will be mitigated by an active restoration program" (*id*., Attachment D at D-9). By contrast, Attachment D to GE's October 2014 Comments (prepared by Professors Brooks, Calhoun, and Hunter) demonstrated in detail the unsupportability of EPA's claims that restoration would effectively and reliably re-establish the pre-remediation conditions and functions of the affected habitats.

Turning to EPA's other assertions regarding impacts of the remedy, although EPA's intended remedy would include only limited remediation in Core Area 1, severe ecological impacts would occur in other areas, including Core Areas 2 and 3, as shown in GE's October 2014 Comments and Attachment C thereto (prepared by the above-named Professors). In fact, despite the weight that EPA gives to the ACEC in attempting to dismiss on-site disposal, it appears to give

[18] Attachment D to GE's October 2014 comments, prepared by Professors Brooks, Calhoun, and Hunter, demonstrated in detail (on pages 19-20) that the Loring Air Force Base and Clark Fork River sites are totally different from the Rest of River and provide no precedent at all for the success of restoration efforts in the Rest of River. Similarly, the Upper ½ Mile and 1½ Mile Reaches of the Housatonic River are very different from the Rest of River in the PSA in that they are located in a largely urban area, are bordered by commercial and residential properties (and, in part, the GE Plant itself), are relatively straight, and have a generally narrow floodplain with steep banks. By contrast, the PSA in the Rest of River consists of a largely undeveloped and unfragmented forested riverine corridor that winds in a sinuous fashion for more than 10 miles through a diverse ecosystem that includes an extensive complex of riverbed, riverbank, wetland, floodplain, and backwater habitats and a network of vernal pools and thus provides exceptional and unique habitat for many wildlife and plant species, including numerous state-listed rare species. The challenges in restoration are far more extreme in that ecosystem than in the more limited habitat in the upstream, urban reaches.

the ACEC much less weight in considering the ecological impacts of the remediation activities. Similarly, while EPA has limited bank excavation and stabilization work in Reaches 5A and 5B to some degree, the bank stabilization work that would be required would itself cause long-term and enduring negative changes in the character of those banks (e.g., prevention of the natural bank erosion and lateral channel movement processes that produce the vertical and undercut banks which provide critical habitat for certain species, elimination of mature trees overhanging the River), as also shown in GE's October 2014 Comments and Attachment C thereto.

Further, while the remedial activities would be phased, that would not avoid the long-term adverse impacts, both because the work would itself produce substantial harm to the habitats in the areas subject to those activities and because the impacts of the work would last far longer than a given construction season or seasons. Contrary to EPA's unsupported claim that phasing would "provide many species with areas adjacent to construction for refugia" (EPA Statement at D-1), that is unlikely because adjacent habitats are usually already occupied, some species are not mobile and cannot migrate, and there would be insufficient time to allow portions of the ecosystem to recover so as to provide the existing diversity of habitats, including mature riparian forests and stable banks with complex root systems. See also Attachment C to GE's October 2014 Comments.

Other examples of EPA's unsupported assertions that the impacts will be only short-term include the following:

- EPA declares that, in spite of the removal of mature trees during construction activities, "[r]estoration requirements will result in a mature forest becoming reestablished following restoration" (*id*. at D-6). However, as shown in prior comments (e.g., Attachment C to GE's October 2014 Comments), that will likely take at least 50 to 100 years. This cannot be regarded as a short-term impact, particularly given the adverse impacts of the absence of mature trees on the suitability of the riparian corridor for wildlife migration and dispersal and as habitats for cavity-nesting species.[19]

- EPA asserts that the likely spread of invasive species due to the disturbance caused by construction activities "will be mitigated via active control of invasive species as specified by the requirement for an Invasive Species Control Plan" (*id* at D-10). Again, asserting that GE must submit a plan to control invasive species does not mean that such species will be controlled. Such control is very difficult in practice and would likely involve the use of herbicides, with potential unintended consequences, as shown in prior comments (e.g., Attachment D to GE's October 2014 Comments).

- EPA attempts to use historic changes in the riverine ecosystem as a reason why the ecosystem will recover, but may not be the same as it is today (*id*. at D-11). According to EPA, "the goal of the ecological restoration is to restore the functions and ecosystem

[19] In arguing to the contrary, EPA asserts, for example, that silver maple trees can grow at a rate of 3-7 feet per year, achieving a mature height of 90 feet (EPA Statement at D-15), thus implying that these trees can reach that height in 13-30 years. That claim, however, assumes that these trees have a linear growth rate, which is not true.

services that currently exist" (*id*.). While the Housatonic's riverine ecosystem may well have recovered from historic impacts, that does not mean that it will recover again in the "short term" (as EPA claims) from the negative impacts resulting from remediation activities to its current state of high ecological integrity. As shown in Attachment D to GE's October 2014 Comments, the scientific literature indicates that restoration would not replicate existing functions and values; rather the outcome would likely be either that the current levels of function are not reached in the foreseeable future or that a novel ecosystem of unknown characteristics is created.

On the converse side, in attempting to show that the ecological risks of PCBs are significant and outweigh the adverse impacts from the remedy, EPA relies primarily on its ERA (*id*. at 21-23). It does not deny, however, that field surveys have documented the presence of numerous, diverse, and thriving plant and animal populations in the PSA, including numerous state-listed species, that continue to reproduce and inhabit the PSA despite the presence of PCBs in this area for over 70 years.[20] In any event, EPA has not conducted any explicit balancing analysis of the residual ecological risks with the ecological impacts, after taking into account a more realistic evaluation of the likelihood of success of restoration – apart from the bare assertion that any impacts will be short-term in the face of conclusions by the Commonwealth of Massachusetts and Professors Brooks, Calhoun and Hunter that the many of these adverse impacts, including to the forested riparian corridor, would last at least 50 to 100 years. As a result, EPA's conclusion that, on balance, "the remedy will provide overall protection of the environment in the Rest of River" (*id*. at 26) remains unsupportable.

D. EPA's Deep Dredging Remedy for Woods Pond Is Inconsistent with the Consent Decree's Remedy Selection Criteria and Is Arbitrary and Capricious.

EPA's intended remedy for Woods Pond would require deep dredging and placement of an engineered cap throughout the Pond so as to achieve a minimum post-capping water depth of 6 feet. GE has estimated that that remedy would require removal of 340,000 cubic yards of sediment.[21] GE demonstrated in its Statement (Section III.A) that, based on projections from EPA's own model, a smaller alternative, such as one involving removal of 44,000 cubic yards of sediment and capping of the Pond, would achieve the same reductions in PCB concentrations in fish, as well as comparable reductions in direct contact and ecological risks and downstream PCB transport, and thus be as protective as EPA's deep dredging remedy, and that it would do

[20] EPA also admits that many of the endpoints relied upon in its ERA are linked to organism-level effects, but argues that such effects can be extrapolated to population-level effects (EPA Statement at 23). However, it does not claim that such population-level effects have been demonstrated in the Rest of River area.

[21] EPA states that it has estimated that this remedy would require the removal of 285,000 cubic yards of sediment, and that that estimate was also based on achieving a minimum post-capping water depth of 6 feet, not an average depth of 6 feet (as indicated in GE's Statement) (EPA Statement at 27 n.119). We note, however, that EPA's estimate of 285,000 cubic yards was initially presented in its Status Report dated May 2012, which contemplated removal "that would achieve a final ***average*** water depth of at least six feet in the pond" (p. 6; emphasis added). Moreover, review of EPA's estimate (in Attachment 6 to its Comparative Analysis) indicates that EPA based its estimate on a number of different assumptions from GE's, including a much wider near-shore area where the removal would be sloped and thus less than full depth.

so with fewer adverse impacts and at a much lower cost.[22] As a result, EPA's remedy would be arbitrary and capricious and contrary to the Consent Decree due to EPA's failure to give adequate consideration to reasonable alternatives and to properly apply the Rest of River remedy selection criteria in the Consent Decree.

EPA attempts to justify its deep dredging remedy mainly on the ground that it would involve more mass removal of PCBs than other alternatives (EPA Statement at 3, 27-28). It states that Woods Pond presents "an opportunity . . . to remove a significant source of PCBs without impacting the state Core Habitats and by using relatively straightforward engineering methods," that once dredging in Woods Pond has begun, "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," and that "[t]here is no other point on the River where it is possible to remove over 285,000 [cubic yards] of PCB contaminated material from a single location with fewer negative impacts to habitat" (*id*. at 28). This extraordinary focus on mass removal exceeds EPA's authority under the Consent Decree, as well as RCRA and CERCLA, which is directed at protecting human health and the environment. Increased mass removal by itself does not increase the protectiveness of a remedy and is not a separate Rest of River remedy selection criterion. In fact, GE showed – and EPA admits (*id*.) – that a smaller removal alternative that would involve sufficient sediment removal to place an engineered cap would achieve the same reductions as EPA's intended remedy in the asserted risks due to fish consumption, direct contact with sediments, and exposures to ecological receptors.

EPA goes on to try to justify the increased mass removal on the ground that the cap may not be "properly maintained and operated to resist floods and ice-scour in perpetuity" and that there may be a "breach or failure of Woods Pond Dam" (*id*.) – any of which EPA seems to believe could undermine the effectiveness of the cap. These sorts of speculations could be made about any engineered caps, including those that would be constructed as part of EPA's intended remedy in Reaches 5A and 5C (which have a higher velocity than Woods Pond), as well as in the other impoundments. EPA provides no reason for its greater concern about an engineered cap in Woods Pond because there is no valid reason for a greater concern. In fact, EPA's speculations are particularly unrealistic for Woods Pond, because GE owns Woods Pond Dam and conducts the necessary monitoring, maintenance, and repair of the dam to prevent dam failure. Doing so is critically important to GE since the Consent Decree's covenants from the

[22] EPA claims that GE has exaggerated the volume and cost differences between these alternatives not only because its remedy would require removal of only 285,000 cubic yards (as discussed in the prior note), but also because the smaller alternative described by GE would actually require removal of approximately 100,000 cubic yards based on a 1- to 1.5-foot excavation in both the shallow and deep portions of Woods Pond (EPA Statement at 27 n.119). Removal in the deep portion, EPA says, "may be necessary to avoid the loss of flood storage capacity" (*id*.), but it provides no support for that assertion. In fact, placement of a cap on top of the existing sediments in the deep portion of the Pond would not cause a loss of flood storage capacity because the backwater effects in Woods Pond are controlled by the dam. This was demonstrated through modeling, as discussed in GE's Revised Corrective Measures Study Report (e.g., at 6-205). In any event, even considering EPA's arguments, that does not change the fact that a much less extensive and costly removal alternative would result in a comparable reduction in risks due to fish consumption, direct contact, ecological exposures, and downstream transport.

federal and state governments not to sue GE for additional natural resource damages (NRD) do not apply in the case of a failure of Woods Pond Dam (CD ¶ 176), and thus such a failure would open GE to additional claims for NRD.[23]

EPA also continues to argue that its deep dredging remedy has the additional benefit of increasing the trapping efficiency of Woods Pond and thus reducing downstream transport of PCBs (*id*. at 29-30). However, as shown in GE's Statement, model runs using EPA's model indicate very little difference between that remedy and a smaller removal alternative in terms of the annual average PCB loads passing Woods Pond and Rising Pond Dams, which are projected to be 2.5 kg/year and 2.7 kg/year, respectively, after the implementation of EPA's Woods Pond remedy and 2.6 kg/year and 2.9 kg/year after the implementation of the smaller remedy described above. While EPA claims that these differences of 0.1 to 0.2 kg/year "are significant relative to the Downstream Transport Performance Standards" (*id*. at 29) (which are in the range of 1.9 to 4.0 kg/year), they are in fact small (4% to 7%) and, based on the current model projections, would not make a difference in whether the standard is attained. More importantly, as shown above, and as EPA appears to admit, these differences would not translate to any reduction in risks due to fish consumption, direct contact, or ecological impacts compared to the smaller alternative, and thus would not result in an increase in the protectiveness of the remedy.

In summary, despite EPA's efforts to bolster its deep dredging remedy, it remains true that the supposed increased benefits of the extra mass removal do not justify the increased costs and the consequent increase in adverse short-term impacts (such as GHG emissions), and that thus EPA's intended remedy would be contrary to the application of the Rest of River remedy selection criteria and would be arbitrary and capricious.

E. EPA's Remedy for Rising Pond Is Inconsistent with the Consent Decree's Remedy Selection Criteria and Is Arbitrary and Capricious.

EPA's intended remedy for Rising Pond (Reach 8) would require: (a) removal of surface sediments and capping of those areas to achieve a spatially weighted average concentration (SWAC) of 1 mg/kg in each of various averaging areas; and (b) for areas outside the footprint of the above cap, removal and capping of sediments as necessary to achieve a SWAC of 1 mg/kg in the subsurface sediments in each averaging area – for a total removal of 50,000 cubic yards.

[23] EPA also attempts to support its reliance on more mass removal by asserting that Woods Pond contains high PCB concentrations in sediments at depths below two feet (EPA Statement at 29). GE's point, however, is that EPA's remedy would require removal of a substantial volume of sediments with PCB concentrations below 1 mg/kg. GE has estimated that approximately half of the sediments to be removed under that remedy have PCB concentrations less than 1 mg/kg. Moreover, we note that some of the examples listed by EPA of high PCB levels at depth would not be removed under its own remedy. For example, the 273 mg/kg sample, which is located in the inlet to the Pond, and the 146 mg/kg sample, which is located in the deep hole in the Pond, would not be addressed by EPA's Woods Pond remedy. EPA asserts further that 75% of the PCB mass in Woods Pond is located in sediment from one to six feet (*id*.). However, as shown by the table in GE's RFI Report cited by EPA, that is true only at the upper bound of the overall estimated range of the PCB mass in the Pond and ignores the estimates for other portions of the range (which extend down to less than half of that amount).

GE explained in its Statement (Section III.C) that a much smaller remedy involving sediment removal to a depth of 6 inches in the shallow portions of that Pond (approximately 15,300 cubic yards) and placement of a cap over the entire Pond would achieve comparable risk-based benefits – i.e., the same or greater reduction in fish PCB concentrations (both in Rising Pond and downstream), similar reductions in exposures to ecological receptors, and a comparable reduction in downstream PCB transport – and would do so with fewer adverse impacts and lower costs. As a result, EPA's remedy would be arbitrary and capricious and contrary to the Consent Decree for similar reasons to those given for Woods Pond.

In its Statement, EPA does not dispute that the smaller alternative remedy described by GE would result in the same or greater reduction in fish PCB concentrations, similar reductions in ecological exposures, and a comparable reduction in downstream PCB transport as EPA's intended remedy. It argues, however, that since that alternative would involve placement of a cap on top of existing sediments in the deeper portions of the Pond, it "could change the hydrodynamics of the system, result in the loss of flood storage capacity and increase water surface elevations and associated flooding" (EPA Statement at 35). That argument is incorrect. The capping without removal in deeper portions of the Pond would not impact the flood storage capacity of the floodplain or cause an increase flood stage or velocities on the river, because (a) the backwater effects in Rising Pond are controlled by the dam and (b) the extra 6-inch caps would be placed only in areas that are already over 3 feet deep. During prior discussions with EPA, GE evaluated this through use of EPA's hydrodynamic model to assess the change in water surface elevation in Rising Pond as a result of placing a 6-inch cap in the deeper portions of the Pond with no removal. Figure 1 shows spatial profiles of the model-predicted water surface elevations in Rising Pond at various flows ranging from a 1-year flood event to a 100-year flood event. The solid lines represent the water surface elevations under current bathymetry and the dashed lines represent the predicted water surface elevation with a 6-inch cap in the deeper portion of the Pond. As expected, the results indicate that there would be no appreciable change in water surface elevation as a result of placing the cap.

In addition, EPA contends that there remains a concern about the potential for a breach or failure of Rising Pond Dam, despite the fact that GE owns that dam and conducts the necessary monitoring, maintenance, and repairs to prevent dam breach or failure (*id*. at 36). In an effort to justify this concern, EPA notes that, in 1992, Rising Pond Dam "had a significant release of PCBs downstream into Connecticut" (*id*.). As EPA later explains, that release "occurred when water behind the Rising Pond Dam was released to facilitate repairs to the dam" and "no apparent measures were employed to contain the PCB contaminated sediment in Rising Pond during this work" (*id*. at 73). That event occurred before GE became the owner of the dam, when the then-owner drew down the water in the Pond to perform dam repairs. As the owner of the dam, GE would ensure that this type of release does not occur in the future.

EPA admits that its intended remedy would have greater short-term adverse impacts (e.g., GHG emissions and truck traffic), as well as costs, than the smaller remedy; but it argues that these are justified by the above concerns about flood storage capacity and water surface elevation under the smaller remedy (*id*. at 36). However, those concerns are unfounded, as shown above. Given that EPA does not dispute that the smaller remedy would result in a comparable reduction in risks, as well as its admission that that remedy would have fewer adverse impacts

and lower costs, it is clear that the intended remedy is not "the best suited remedy based on an evaluation of all of the remedy selection criteria" (*id*.), and in fact would be arbitrary and capricious.

F. The Downstream Transport and Biota Performance Standards Exceed EPA's Authority, Are Arbitrary, and Conflict with the Consent Decree.

EPA's intended remedy contains two provisions, referred to as the Downstream Transport Performance Standard and the Biota Performance Standard, that specify certain numerical requirements to be met following the completion of the remediation activities specified in the Rest of River Remedial Action. In its Statement (Section V), GE showed that these "standards" exceed EPA's statutory and Consent Decree authority and are arbitrary and capricious for the following reasons: First, the Downstream Transport Standard does not have any human health or environmental risk-based justification, since EPA has made no determination that the PCB transport values specified therein are necessary to protect human health or the environment. Second, both "standards" are based on predictions from EPA's model, and EPA admits that its model cannot accurately predict the achievement of absolute values like these "standards." Third, the provisions that GE must propose and EPA will determine additional response actions in the future based merely on an exceedance of the specified "standards" would (a) conflict with the requirement in the Consent Decree that EPA now identify any response actions necessary to meet Performance Standards, (b) violate the covenants in the Consent Decree, and (c) constitute an impermissible "contingency remedy" without an evaluation of the remedy selection criteria as required by the Consent Decree as well as EPA's own guidance.

In its Statement, EPA has raised several arguments. It contends first that the Downstream Transport Standard was related to a risk-based objective because it addresses downstream PCB transport, which constitutes an "uncontrolled source" that could result in risks to human and ecological receptors, and thus fits within the Rest of River remedy selection criterion of "control of sources of releases" (EPA Statement at 60). That is off the point. GE's point is that the PCB transport numbers specified by that standard were not based on an analysis of risk and have not been shown to be necessary to protect human health or the environment.

EPA also argues that it reasonably relied on predictions from its model to set the Downstream Transport and Biota Performance Standards, and that it took account of uncertainties in the model's predictions of absolute values (*id*. at 60-61). EPA states that if it had used the exact absolute values predicted by the model, the standards would have been lower or the time to achieve them would have been shorter (*id*. at 61). Again, that misses the point. GE's point is that the model predictions are not sufficiently accurate to establish absolute numerical values for enforceable Performance Standards, even with an allowance for variability or uncertainties in those values. In any case, as shown in GE's October 2014 Comments (at 59, 60), while the transport values specified by the Downstream Transport Standard account for year-to-year variability in the PCB loads, they do not account for model uncertainty.[24]

[24] The transport values specified by the Downstream Transport Standard used the 95% prediction limits of a regression of annual average flux versus annual average flow rate (see note on page 16 of EPA's intended final

EPA next contends that it has no obligation at this time to identify and evaluate the response actions that would be necessary to meet the Downstream Transport or Biota Performance Standards in the event that there is an exceedance of such a standard (*id*. at 62-64). In this regard, EPA asserts 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" (*id*. at 62). In fact, however, as discussed in Section I.E above and shown in Section V of GE's Statement, the Consent Decree unambiguously requires EPA to identify not only the Performance Standards for the Rest of River remedy, but also the appropriate corrective measures necessary to meet the Performance Standards. That requirement allows GE, EPA, and a reviewing court to determine whether the Rest of River Remedial Action satisfies the Rest of River remedy selection criteria. While EPA argues that the additional response actions that may be required in the event of a future exceedance cannot be identified or evaluated now since they are unknown, that argument ignores the provisions of the Consent Decree that specifically address such a situation. As also discussed in Section I.E, the Consent Decree requires that, before requiring such future, currently unspecified response actions, EPA must satisfy the covenant reopener conditions – i.e., make a determination that the contingency constitutes new information or conditions indicating that the selected Remedial Action is no longer protective of human health or the environment and that the further response actions are related to that determination.

EPA's attempted nullification of the Consent Decree will not receive any deference because the governing documents both (1) command that EPA identify the necessary corrective measures in the modified Permit, and (2) embody a prohibition against the imposition of open-ended requirements like these by putting strict limits on EPA's ability to re-open the process of selecting a remedy or to otherwise modify GE's remedial obligations.

First, the Permit says, in imperative terms, that when EPA modifies it to select a Rest of River remedy, the Agency "***will*** propose Performance Standards, ***and the appropriate corrective measures necessary to meet the Performance Standards***" (Permit Condition II.J; emphases added). This is a positive instruction that EPA must identify, in the modified Permit, the corrective measures that GE will be obligated to perform. As noted above, moreover, EPA has consistently agreed that it must select Performance Standards and corrective measures in a way that satisfies the Rest of River remedy selection criteria (see Section II.A.2 above). Given that obligation, EPA cannot comply with the Consent Decree by postponing the selection of particular corrective measures because a corrective-measure-to-be-named-later is not a "corrective measure" within the meaning of the Permit, as its suitability cannot be assessed based on the Rest of River remedy selection criteria.

Deferring the identification of necessary corrective measures would thus negate the effective operation of the selection criteria, and nullify the review provisions of the Consent Decree. Insofar as the modified Permit does not identify the corrective measures that GE must perform

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decision). While this accounted for year-to-year variability in the PCB load (due to variability in flow), it did not account for inherent model uncertainty in any way.

to achieve the specified Performance Standards, an appeal filed pursuant to the Consent Decree would be timely, but unripe: the Environmental Appeals Board and the First Circuit would have the formal power of review, but nothing concrete over which to actually exercise that power. Conversely, when EPA eventually exercised its putative authority and selected the new corrective measures, any administrative or judicial challenge by GE would be ripe, but EPA is likely to claim that it is untimely because the Rest of River decision already gave EPA the authority to require any response actions necessary to achieve the Downstream Transport and Biota Performance Standards. This is an impermissible reading of the Consent Decree. GE is entitled to the actual, and not just the ostensible, benefit of its agreement with EPA, and the federal courts will not interpret the Consent Decree in a way that annuls GE's express contractual rights. See, e.g., *Clukey v. Town of Camden,* 797 F.3d 97, 102 (1st Cir. 2015) (courts will construe a contract "to give force and effect to all of its provisions" and will "avoid an interpretation that renders meaningless any provision in the contract").

Second, the open-ended remedial requirements conflict just as fundamentally with the provisions of the Consent Decree that circumscribe EPA's ability to re-open the remedy selection process in order to further modify the RCRA Permit or to otherwise impose additional remedial obligations on GE. Insofar as an open-ended requirement in the modified Permit would, in effect, give EPA broader rights than it agreed to, it would be inconsistent with and impermissible under the Consent Decree.

Paragraph 39 of the Consent Decree, on which EPA relies (EPA Statement at 57, 62), actually refutes the Agency's position. Under that provision, EPA can modify the work already specified in the Rest of River Statement of Work (SOW) or in the Work Plans developed thereunder ***only*** if it determines that such a modification is "necessary to achieve and maintain the Performance Standards [stated in the modified Permit] or to carry out and maintain the effectiveness of . . . [the] Remedial Action" and "***only*** . . . to the extent that the modification is ***consistent with the scope of the response action*** for which the modification is required and ***does not modify the Performance Standards***" (CD ¶ 39.a; emphases added). Paragraph 39, in other words, merely contemplates that EPA may need to modify ***existing*** remedial obligations under certain circumstances, and does not give the Agency authority to modify the Permit itself or to create new remedial obligations out of whole cloth, which would not be "consistent with the scope of the [Rest of River] response action."[25]

EPA's position is further undermined by Paragraphs 161, 162, and 163 of the Consent Decree, in which the United States covenanted not to take action against GE to require additional

[25] EPA also cites Paragraph 40 of the Consent Decree (EPA Statement at 57, 62). This provision says that nothing in the Consent Decree, the SOW, or the Work Plans thereunder "constitutes a warranty or representation" by the United States or the States that compliance with the work requirements set forth in the SOW or the Work Plans, "which requirements are not part of or included within the Performance Standards, will achieve the Performance Standards" (CD, ¶ 40). Paragraph 40 may recognize that the performance of certain kinds of specified work does not, in and of itself, guarantee achievement of the Performance Standards; but it does not have any bearing on EPA's limited authority to modify the work specified in the SOW or the Work Plans, which is governed by Paragraph 39, or on EPA's limited ability to take action against GE to require additional response actions, which is governed by Paragraphs 162 and 163.

response actions except in certain specified conditions. Specifically, the Consent Decree allows EPA "to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel [GE] . . . to perform further response actions relating to the Site," but ***only*** if: (1) conditions or information previously unknown to the Agency are discovered or received; (2) EPA determines that these previously unknown conditions or information, together with other relevant information, indicate that the previously selected Removal Action or Remedial Action is not protective of human health or the environment; and (3) the further response actions sought by EPA "are related to EPA's determination that the individual Removal or Remedial Action . . . [is] not protective of human health or the environment" (CD ¶¶ 162, 163).

These provisions, then, give EPA ***some*** future ability to impose remedial requirements on GE that are not specified in the Permit, but they restrict both the scope of the Agency's authority and the manner in which it may act. Paragraph 39 allows EPA only to modify the SOW or the Work Plans to make sure that an already-identified corrective measure achieves an already-specified Performance Standard. The Agency cannot use Paragraph 39 authority to change any Performance Standards at all,[26] and it cannot require GE to carry out additional or different corrective measures to achieve the existing Performance Standard, since that would not be "consistent with the scope of the response action" already specified in the Permit.[27]

Paragraphs 162 and 163 do not authorize EPA to modify the Permit, the SOW, or the Work Plans. They do not allow the Agency to change the Performance Standards or to amend the corrective measures specified in the Permit and fleshed out in the SOW and the Work Plans. They do allow EPA to take action "seeking to compel" GE to perform further response actions, but only on the basis of newly discovered conditions or information indicating that the previously selected Remedial Action is not protective of human health or the environment.

These provisions will be nullified if EPA can insert open-ended provisions into its final Permit modification decision that effectively give the Agency broad authority down the road to create entirely new remedial obligations. The Consent Decree does not explicitly empower EPA to impose open-ended requirements, and under ordinary contract principles EPA cannot assert an implied power of that nature in the face of Paragraphs 39, 161, 162, and 163.

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[26] For example, if the modification would require additional removal on the Reach 5A riverbanks (beyond the erodible banks subject to removal under the Rest of River remedy as issued) or additional removal in Reach 5B (beyond the hot spots subject to removal under the remedy as issued), that would not be not authorized under Paragraph 39.a because it would modify the Performance Standards governing the riverbanks and Reach 5B.

[27] EPA likens its requirement that GE must undertake future, unspecified response actions in the event of an exceedance of the Downstream Transport or Biota Performance Standard to the requirement that GE must undertake operation and maintenance (O&M) activities for the Rest of River Remedial Action (EPA Statement at 63). That claim cannot withstand analysis. O&M activities will be conducted to maintain the effectiveness of response actions that have already been evaluated, selected, and implemented, and they will be specified in an O&M Plan. They are not the same as new response actions that would require additional remediation of the Rest of River.

G. EPA Has Not Ameliorated the Legal Defects in the Requirement to Inspect and Maintain Non-GE-Owned Dams in Massachusetts.

GE has disputed EPA's intended requirement that GE must inspect, monitor, and maintain all dams on the Rest of River in Massachusetts that are not owned by GE, including maintaining the integrity of the dams and conducting materials handling and disposal and engineering controls related to dam maintenance, repair, upgrades, and enhancements. As shown in GE's Statement (Section VI.A), this requirement would impose on GE obligations that are the responsibility of the dam owners under federal and state law. It exceeds EPA's authority and contravenes the Consent Decree because it would: (1) interfere with the existing federal and state dam regulatory programs; (2) impose obligations and liabilities on GE that go beyond what is necessary to protect human health or the environment from PCB releases; and (3) conflict with the Consent Decree requirement that EPA must evaluate its remedy under the Rest of River remedy selection criteria, since there is no indication that EPA has evaluated this dam maintenance requirement under those criteria.

In its Statement, EPA states that it has included or could include provisions in its final decision to address some of GE's concerns. Specifically:

- EPA states that, under its intended final decision, "[i]f GE believes that 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" (EPA Statement at 72).

- In a similar vein, EPA states that it can revise the requirement to be "that GE will ensure performance of inspection, monitoring and maintenance instead of performing inspection, monitoring and maintenance" (*id*. at 74).

- EPA states that it can modify the requirement to add 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 with the land owner, and whether Engineered Caps will maintain effectiveness without GE having fulfilled its obligations regarding dam inspection, monitoring and maintenance" (*id*.).

These provisions would not fully address the deficiencies in the requirement. Under EPA's proposal, in the event that EPA does not approve of allowing the dam owner to continue the inspection, monitoring, and maintenance activities, GE would still be required to take over these activities. Further, the conditions applicable to obtaining approval of a plan that would avoid a conflict with the dam owner, including the requirement for remediation of the impoundments behind the dams, are potentially so stringent as to undercut the usefulness of that provision.

Thus, many of the legal defects identified in GE's Statement regarding the underlying dam inspection/maintenance takeover requirement would remain.

H. The Requirements to Conduct Response Actions for Future River and Floodplain Projects Conflict with the Consent Decree and Are Otherwise Unlawful.

EPA's intended final decision would require that, if a third party plans to conduct any Legally Permissible Future Project or Work (as broadly defined by EPA) on or along the River in Massachusetts or any such project or work in Connecticut that would involve the handling or disturbance of sediments or riverbank soils with PCB concentrations greater than 1 mg/kg, GE must conduct response actions to be protective of such project or work (i.e., to allow such project or work to be conducted in a manner that maintains Performance Standards and/or the effectiveness of the Rest of River Remedial Action). Similarly, it would require that, for all floodplain properties and property interests that are not subject to a Grant of Environmental Restriction and Easement (ERE) or a Notice ERE, GE must conduct any response actions to be protective of any Legally Permissible Future Project or Work and any Legally Permissible Future Use.[28]

GE's Statement (Sections VI.B and VII) showed that these requirements contravene the Consent Decree, exceed EPA's authority, and are otherwise arbitrary, capricious, and unlawful because, among other reasons: (1) they conflict with the Consent Decree requirement that EPA must identify the response actions necessary to meet Performance Standards and evaluate them under the Rest of River remedy selection criteria; (2) they would constitute a "contingency remedy" under EPA guidance, which would likewise require that they be evaluated under the applicable remedy selection criteria; (3) they would run afoul of the Consent Decree covenants, which provide that additional response actions (beyond those specified as part of the Remedial Action) can be required only based on an EPA determination that the covenant reopener conditions have been met; and (4) they would impose liability on GE without regard to established legal limits (e.g., under CERCLA) on GE's liability to third parties for costs that third parties incur related to PCBs and could strip GE of potential defenses to unreasonable or untimely claims.

In its Statement, EPA argues, first, that these requirements are analogous to the requirements to which GE already agreed in Paragraph 34 of the Consent Decree to implement Conditional Solutions, which likewise require GE to conduct future, currently undefined response actions at non-residential properties without EREs if necessary to meet Performance Standards for a future permissible use or to ensure the proper excavation, management, and disposition of excavated soils (EPA Statement at 65, 67-68). However, GE's agreement to Conditional Solutions in the Consent Decree was limited to the known set of non-residential properties located within the areas near the GE Plant or the floodplain upstream of the Rest of River that

[28] As noted in GE's Statement (Section VII), this floodplain requirement would apply to (a) floodplain properties subject to Conditional Solutions, (b) other non-ERE properties within the designated exposure areas (EAs), (c) non-subordinated property interests at properties with EREs or Notice EREs, and (d) properties outside the EAs with PCB concentrations greater than 1 mg/kg.

were subject to specified Removal Actions under the Consent Decree (known as Removal Action Areas or RAAs). Further, the types of actions that could be required at those properties as part of Conditional Solutions were known, and there were specified conditions under which the Conditional Solution requirements could be triggered. Thus, the scope of GE's potential future liability was limited. GE did ***not*** agree to conduct future response actions for any potential future river or floodplain projects or changes in use that might occur anywhere in the much larger expanse of the Rest of River. Indeed, the Conditional Solution requirements in the Consent Decree apply only to upland properties in the defined RAAs, and do not apply to river projects at all. EPA's effort to expand those requirements to the entire Rest of River, including both the River and the floodplain, is far more open-ended.[29]

EPA further argues that: (a) these requirements are not "open-ended" since they are directed to maintaining known Performance Standards or the effectiveness of the Rest of River Remedial Action; (b) EPA was not obligated to evaluate the specific response actions at this time under the nine Rest of River remedy selection criteria since those response actions are not now known; (c) these requirements are a reasonable alternative to requiring complete cleanup of these areas and properties now; (d) these requirements do not violate the covenants and would not require meeting the covenant reopeners since the response actions that would be required are not "additional" response actions within the meaning of the covenants, but are part of the Rest of River Remedial Action itself; and (e) these requirements would not deprive GE of defenses in a third-party action for the same relief since GE already agreed to waive those defenses through its agreement to Conditional Solutions in the Consent Decree (*id*. at 65-67; see also *id*. at 71 regarding the floodplain requirements).

These arguments fail for largely the same reasons discussed above for similar requirements to conduct currently undefined response actions. These requirements are open-ended because the response actions required are unspecified, and they do not comply with the Consent Decree requirement that the required response actions be identified and evaluated under the Rest of River remedy selection criteria. Rather, EPA would have the discretion to require whatever response actions it deems appropriate without such an evaluation. To the extent that such response actions cannot be identified and evaluated at this time, EPA would be required, as discussed in Sections I.E and II.F, to meet the covenant reopener conditions before requiring such actions, rather than seeking to avoid making such a determination, as indicated by its argument (d) above. Finally, with respect to EPA's argument (e), we have shown above that GE did ***not*** agree in the Consent Decree to Conditional Solutions for river and floodplain

[29] EPA contends that GE did agree to Conditional Solutions in the Rest of River, pointing to a clause in the introduction to Paragraph 34 of the Consent Decree stating that the Performance Standards for Conditional Solutions shall include, among other requirements, requirements "that may be identified as Performance Standards for a Conditional Solution in the Rest of River SOW" (CD ¶ 34) (EPA Statement at 65 and n.243). That reference regarding Performance Standards, however, does not reflect an agreement by GE to implement Conditional Solutions in the Rest of River. The provisions in the Consent Decree which require GE to implement Conditional Solutions apply ***only*** to the defined RAAs upstream of the Rest of River (see CD ¶¶ 25.d(vi)&(vii), 26.h. 29.b, and 30.a(ii)). Further, all of the specific substantive requirements of Paragraph 34 pertain to the implementation of Conditional Solutions at those RAAs and refer to the Performance Standards that were established for those RAAs (see CD ¶ 34.b, c, d).

projects in the Rest of River and thus has ***not*** waived its defenses to third-party claims seeking the same relief.

I. The Requirements to Conduct Response Actions for Future Dam Failure or Breach Are Unauthorized and Conflict with the Consent Decree.

EPA's intended final decision would also require that, if there is a catastrophic failure or material breach of any dam or dam component in Massachusetts or Connecticut that results in a release of PCBs, GE must conduct response actions to maintain the Performance Standards and/or the effectiveness of the Rest of River remedy, including repair (or, alternatively in Massachusetts, removal) of the dam and actions to respond to the PCBs released by the failure or breach. As discussed in GE's Statement (Section VI.C), these requirements, as applicable to non-GE-owned dams, exceed EPA's authority and conflict with the Consent Decree because: (1) EPA does not have the authority to require GE to repair (or remove) a failed or breached dam that is not owned by GE; (2) these requirements have not been evaluated under the Rest of River remedy selection criteria and thus conflict with the Consent Decree's mandate that EPA must apply those criteria in selecting a remedy (and would also constitute a contingency remedy under EPA's guidance); and (3) these future contingent requirements conflict with the Consent Decree covenants, under which additional response actions can be required of GE only if EPA determines that the reopener conditions are met.

In its Statement, EPA argues that dam regulatory requirements "do not prohibit GE from taking action to address GE's PCBs migrating downstream from a failed or breached dam" (EPA Statement at 75). That argument misses this point. GE's objection on this score is that EPA does not have the authority to require GE to ***repair or remove*** a dam that it does not own. As to that objection, EPA says later that "EPA is not mandating in this proposed remedy the specific actions that would be most appropriate; what is most appropriate depends on the circumstances" (*id*.). In fact, however, the intended final decision provides that GE ***must*** propose a plan to repair or remove the dam, as well as taking other actions to respond to the PCBs released (see Sections II.B.2.j.(2)(c) and II.B.2.l.(2)(c) of EPA's intended final decision).

Beyond that, EPA's arguments are the same as with respect to other requirements for future, currently unspecified actions – i.e., that EPA was not required to evaluate the future response actions under the Rest of River remedy selection criteria since those specific actions are currently unknown, that such future response actions are not "additional" response actions that implicate the covenants, and that Paragraph 39 of the Consent Decree gives EPA the authority to require such future response actions without going through the covenant reopeners (EPA Statement at 75-76). However, for the reasons given in Sections I.E and II.F above, EPA is required to identify and evaluate required response actions based on the applicable remedy selection criteria; and if it cannot do so, then it is required to go through the covenant reopeners (including a finding that the dam failure or breach and release of PCBs constitutes new information or conditions indicating that the selected Remedial Action is no longer protective of human health or the environment) in order to require additional response actions. EPA's argument that Paragraph 39 of the Consent Decree gives it the authority to require such

response actions without making such a determination is erroneous for the same reasons given in Section II.F.

J. EPA Relies on Inapposite Provisions to Support Its Habitat Restoration/Mitigation Requirements.

GE's Statement (Section VIII.A) showed that the habitat restoration requirements included in EPA's intended decision exceed EPA's statutory and Consent Decree authority and would amount to requiring actions to address NRD in violation of the NRD covenants in the Consent Decree. In any event, as also shown in GE's Statement, to the extent that EPA would require GE to enhance the affected resources or implement projects designed to "compensate" for the remedy's impacts (as opposed to attempting to return the resources to their pre-remediation condition), such requirements would clearly constitute an effort to recover additional NRD and thus would violate the Consent Decree's NRD covenants.

In response, EPA's Statement makes two new arguments that it has not raised before. First, EPA claims that the United States' NRD covenant in the Consent Decree does not apply until the Rest of River Remedial Action is complete, citing Paragraph 161.d of the Decree (EPA Statement at 79; see also *id*. at 4, 86). That claim is erroneous and misleading. Paragraph 161.d(i) provides that the covenant not to sue for "***future liability***" "shall be effective for each Removal or Remedial Action . . . upon EPA's Certification of Completion for that individual Removal or Remedial Action" (emphasis added). However, that does not affect the timing of the NRD covenant not to sue for past or current liability. Paragraph 161.d(i) provides that that covenant took effect upon GE's payment of certain costs shortly after entry of the Consent Decree. For that reason, it is applicable now, and the United States could not today sue GE for recovery of NRD.

Second, EPA points out that, as part of the satisfaction of the Federal and State Governments' claims for NRD, the Consent Decree requires "[p]erformance of the response actions required under this Consent Decree" (*id*., citing CD ¶ 112.a). That is true but circular in terms of GE's arguments about restoration or mitigation. While the Consent Decree requires, as part of the NRD settlement, that GE conduct the response actions required under the CD, that requirement does not answer the question whether such response actions may or may not include restoration and compensatory mitigation actions – which is the issue raised by GE. Further, to the extent that EPA is claiming that the NRD covenant is not triggered until GE has performed all required response actions, that is incorrect for the reason given above.

K. EPA's Position on the MESA Conservation/Net Benefit Plan Requirement Is Inconsistent with the Applicable Regulations and Unjustified.

GE has challenged EPA's requirement that, to the extent that implementation of its remedy would result in a "take" of any state-listed threatened, endangered, or special concern species, GE must prepare and submit, under the Massachusetts Endangered Species Act (MESA) regulations, a Conservation and Management Plan for providing a "long-term net benefit" to the conservation of the species to be taken. GE's Statement (Section VIII.B) explained, first, that

this requirement is overbroad since it is not limited, as required by the MESA regulations, to situations where the take would impact an insignificant portion of the local population of the species. Moreover, GE showed that this requirement is unauthorized and contrary to the Consent Decree because: (1) it does not constitute an ARAR due to the unfettered discretion that it gives to the MassDFW; and (2) by requiring GE to conduct unspecified conservation and management measures in return for a take, it would constitute an attempt to recover additional NRD, in contravention of the federal and state NRD covenants in the Consent Decree.

EPA argues in its Statement that MassDFW "has affirmed for EPA" an interpretation of the MESA regulations that would require GE to submit a Conservation and Management/Net Benefit Plan regardless of whether there would be a significant impact on the local population of the species (*id*. at 81, 82). EPA has provided no support or citation for that interpretation, and that interpretation cannot be squared with the plain language of the regulation itself. The regulation (321 CMR 10.23(2)) provides that the MassDFW Director

> "may issue a conservation and management permit provided:
>
> (a) The applicant has adequately assessed alternatives to both temporary and permanent impacts to State-listed Species;
>
> (b) An insignificant portion of the local population would be impacted by the Project or Activity, ***and***;
>
> (c) The applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the State-listed Species . . ." (emphasis added).

The regulation thus makes clear that all three conditions must be met before a "take" permit can be issued. As a result, if there is a significant impact on the local population, the "take" cannot be permitted and the requirement for a Conservation and Management/Net Benefit Plan does not come into play.

EPA's remaining arguments are addressed in GE's Statement, with the additional discussion of the NRD covenant in Section II.J.

L. EPA's Discussion of ARARs Continues to Contain Erroneous and Unsupportable Conclusions.

GE demonstrated in its Statement (Section IX) that, for several of the federal and state statutes, regulations, and other authorities that EPA has identified as ARARs for the Rest of River Remedial Action, EPA's ARARs table included as Attachment C to its intended decision contains statements that are erroneous, unsupportable, incomplete, and/or misleading or lists requirements that should not constitute ARARs for this remedy at all. GE continues to rely on

that showing, but discusses below a few instances in which the arguments in EPA's Statement warrant a further response.[30]

1. Federal and state water quality criteria

As discussed in GE's Statement (Section IX.A), EPA's decision not to waive, as an ARAR for the Connecticut portion of the river, the federal and Connecticut PCB water quality criterion of 0.000064 µg/L is unsupportable because (as EPA admits) that criterion cannot be reliably measured using an EPA-approved method and because, given the high uncertainties in the extrapolation of the EPA model results to Connecticut (as EPA also concedes), there is no reliable method to predict the attainment of this criterion in Connecticut.

In its Statement, EPA addresses only the modeling uncertainty point (EPA Statement at 84). It does not address the absence of a reliable measurement method. As shown in GE's October 2014 Comments and its Statement, ARARs must be both "measurable and attainable" (55 Fed. Reg. 8720, 8752, March 8, 1990). As EPA concedes, the 0.000064 µg/L water quality criterion "cannot be reliably measured using available analytical techniques" (Attachment C to EPA's intended final decision at 2) That is true in both Massachusetts (where EPA proposes to waive the criterion) and Connecticut (where EPA proposes not to waive the criterion). That alone requires a waiver of this criterion in Connecticut based on technical impracticability. As noted in GE's Statement, EPA guidance on ARARs indicates that where compliance with applicable standards cannot be measured due to detection limit issues, "the technical impracticability waiver should generally be invoked.".[31]

2. Massachusetts water quality certification regulations

GE's Statement pointed out (Section IX.D) that, contrary to EPA's claims, the intended remedy would not comply with certain provisions of the Massachusetts water quality certification regulations, including the prohibition on a discharge of dredged or fill material that would adversely affect the specified habitat of rare (i.e., state-listed) wildlife species (314 CMR 9.06(2)).

EPA responds that, despite the general prohibition in 314 CMR 9.06(2), "projects that involve the discharge of dredged or fill material in protected resource areas are otherwise permissible under 310 CMR 9.06(2) if appropriate and practicable steps are taken, such as a minimum of 1:1 restoration or replication, to avoid or minimize potential adverse impacts" (EPA Statement at 88). That is incorrect. While Section 9.06(2) contains a general requirement to take "appropriate and practicable steps" to avoid and minimize adverse impacts, it provides flatly

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[30] As in Section IX of GE's Statement, this section addresses ARARs for EPA's sediment and floodplain remedy, as set forth in Attachment C to the intended final decision. EPA's discussion of ARARs in connection with its selection of out-of-state disposal over on-site disposal for the removed sediment and soil is addressed in Section II.A above.

[31] EPA, *ARAR Q's and A's: Compliance with Federal Water Quality Criteria*, OSWER Pub. 9234.2-09/FS (June 1990) at Highlight 2. With respect to EPA's arguments on modeling uncertainty, those arguments are adequately addressed in GE's Statement.

that, regardless of whether such steps are taken, "no such project may be permitted which will have any adverse effect on specified habitat sites of Rare Species." Section 9.08 of these regulations does allow for a variance from the requirements in Section 9.06 if "[a]ll reasonable measures have been proposed to avoid, minimize, and mitigate adverse effects on the environment" and "[t]he variance is justified by an overriding public interest." However, EPA needs to recognize that such a variance would be needed for its remedy, instead of saying, as it now does, that "the remedy will not necessitate a waiver from the prohibition of 9.06(2)" (Attachment C to EPA's intended final decision at 8-9).

3. Massachusetts Wetlands Protection Act regulations

GE's Statement (Section IX.E) also showed that, again contrary to EPA's assertions, its remedy would not comply with certain provisions of the Massachusetts Wetlands Protection Act regulations, including the prohibition on projects that would have short- or long-term adverse effects on the habitat of a local population of a state-listed wildlife species (310 CMR 10.59).

In response, EPA notes that the Massachusetts Department of Environmental Protection (MassDEP) has a policy under which it relies on the MassDFW Natural Heritage Program to determine whether a project would have adverse effects on the habitat of a local population of a state-listed wildlife species (EPA Statement at 90). It then states that, in this case, MassDEP "has affirmed for EPA" that an EPA determination, made in consultation with the Natural Heritage Program, that a response action with such an effect will be mitigated through a Conservation and Management/Net Benefit Plan would satisfy the substantive standard of 310 CMR 10.59 (EPA Statement at 90). The latter statement represents an unauthorized attempt by EPA and MassDEP to sidestep the regulatory requirement and force GE to submit a Conservation and Management Plan. Section 10.59 prohibits projects that would have short- or long-term adverse effects on the habitat of a local population of a state-listed species without mentioning a MESA Conservation and Management Plan. EPA and MassDEP are trying to bootstrap into this prohibition a requirement to submit such a plan – which is not present in the regulations.

CONCLUSION

Despite EPA's lengthy efforts to salvage its intended Rest of River Remedial Action, that intended decision would violate EPA's Consent Decree obligations, exceed EPA's statutory authority, and be arbitrary, capricious, and otherwise unlawful.

Table 1

Risk-Based Approvals or Waivers for On-Site TSCA Disposal Facilities

Site / Decision Document	Type of On-Site Disposal	EPA TSCA Determination
GE- Pittsfield/Housatonic River Site (MA) – Consent Decree (2000)	Building 71 On-Plant Consolidation Area (new landfill within GE facility) – authorized to receive TSCA (≥ 50 ppm) material. Would not meet certain requirements of § 761.75(b): - Low permeability soil conditions - Bottom of landfill at least 50 ft above historic high water table - No hydraulic connection to surface water	EPA made risk-based determination that use of that landfill would not pose unreasonable risk of injury to health or environment.
New Bedford Harbor Site (MA) – Fourth Explanation of Significant Differences for Operable Unit 1 (2011)	Confined Aquatic Disposal (CAD) cell constructed underwater in harbor to be used for disposal of dredged sediments, including those with PCBs ≥ 50 ppm. Due to underwater location, would clearly not meet some requirements of § 761.75(b) (e.g. no hydraulic connection with surface water, etc.).	EPA made risk-based determination that CAD would not pose unreasonable risk of injury to health or environment.
New Bedford Harbor Site (MA) – Fifth Explanation of Significant Differences for Operable Unit 1 (2015)	Use of pilot shoreline Confined Disposal Facility (CDF) as permanent TSCA disposal facility for TSCA-regulated sediments. Original 1998 ROD made clear that shoreline CDFs would not meet TSCA landfill standards for hydrogeological conditions, as well as leachate collection and bottom liner.	EPA made risk-based determination that permanent use of CDF would not pose unreasonable risk of injury to health or environment.
Norwood PCBs Site (MA) – ROD (1989), as amended by ROD Amendment (1996)	Creation of on-site chemical waste landfill through placement of TSCA soil (≥ 50 ppm) on portion of site and covering them with multi-layer cap or 1 foot of clean backfill. Would not meet certain requirements of § 761.75(b): - Low permeability soil conditions - Use of synthetic membrane liner - Bottom of landfill at least 50 ft above historic high water table - Leachate collection system	EPA waived the listed requirements of § 761.75(b) as not necessary to protect against unreasonable risk of injury to health or environment.

Site / Decision Document	Type of On-Site Disposal	EPA TSCA Determination
Sullivan's Ledge Site (MA) – ROD for Operable Unit 1 (1989); ROD for Operable Unit 2 (1991)	Use of on-site landfill in which contaminated soils and sediments from a former disposal area and a stream (OU-1) and from a marsh (OU-2), including those ≥ 50 ppm, would be placed – after solidification of those from OU-1 and possible solidification of those from OU-2 (if deemed necessary) – on portion of site and covered with impermeable cap. Would not meet certain requirements of § 761.75(b): - Low permeability soil conditions - Use of synthetic membrane liner - Bottom of landfill at least 50 ft above historic high water table	EPA waived the listed requirements of § 761.75(b) as not necessary to protect against unreasonable risk of injury to health or environment.
Silresim Chemical Corp. Site (MA) – ROD (1991)	Placement of stabilized soils, including those ≥ 50 ppm, on portion of site and covered with impermeable cap. Would not meet certain requirements of § 761.75(b): - Low permeability soil conditions - Use of synthetic membrane liner - Bottom of landfill at least 50 ft above historic high water table	EPA waived the listed requirements of § 761.75(b) as not necessary to protect against unreasonable risk of injury to health or environment.
Fields Brook Site (OH) – ROD for Operable Unit IV (1997); Explanation of Significant Differences for Operable Unit 1 (1997)	On-site landfill to be constructed on industrial property at site; to be used for disposal of sediments and soils from brook and floodplain/wetland area with PCBs ≥ 50 ppm. Would not meet requirement of § 761.75(b) for 50 ft distance between bottom liner and historical high water table.	EPA waived identified requirement of § 761.75(b) as not necessary to protect against unreasonable risk of injury to health or environment.
Allied Paper/Portage Creek/ Kalamazoo River Site (MI) – ROD for Operable Unit 3 (1998)	Consolidation of excavated soils and sediments from waterbodies and floodplain, including those with PCBs ≥ 50 ppm, into one cell of existing landfill and then capped. Would not meet certain requirements of § 761.75(b): - Bottom liner - Bottom of landfill at least 50 ft above historic high water table - Leachate collection system	EPA waived the listed requirements of § 761.75(b) as not necessary to protect against unreasonable risk of injury to health or environment.

Site / Decision Document	Type of On-Site Disposal	EPA TSCA Determination
Allied Paper/Portage Creek/ Kalamazoo River Site (MI) – ROD for Operable Unit 4 (2001)	Placement of excavated soils, including small amount with PCBs ≥ 50 ppm, into portion of existing landfill, which would then be encapsulated. While not explicit, discussion indicates that this landfill would not have bottom liner.	EPA made risk-based determination that this disposal method would not pose unreasonable risk of injury to health or environment.
Berkley Products Dump Site (PA) – ROD (1996); Explanation of Significant Differences (1999)	Consolidation of waste material, including material with PCBs ≥ 50 ppm, into portion of existing landfill, to be capped. Would not meet certain requirements of § 761.75(b): - Low permeability soil conditions - Use of synthetic membrane liner - No hydraulic connection to surface water - Bottom of landfill at least 50 ft above historic high water table - Leachate collection system	EPA waived the listed requirements of § 761.75(b) as not necessary to protect against unreasonable risk of injury to health or environment.
Paoli Rail Yard (PA) – ROD (1992)	Placement of treated solidified soil with PCBs ≥ 50 ppm in on-site containment cell and covered with impermeable cap. Would not meet certain requirements of § 761.75(b): - Use of synthetic membrane liner - Bottom of landfill at least 50 ft above historic high water table - Leachate collection system	EPA waived the listed requirements of § 761.75(b) as not necessary to protect against unreasonable risk of injury to health or environment.
Picillo Farm Site (RI) – ROD (1985)	Disposal of contaminated soils with PCBs ≥ 50 ppm in on-site landfill. Landfill would not meet requirement of § 761.75(b) for 50 ft distance between bottom liner and historical high water table.	EPA waived identified requirement on ground that landfill would be adequately protective without meeting that requirement.
U.S. Steel Gary Works (IN) – Consent Order under RCRA corrective action program – Modified Approval to Dispose Polychlorinated Biphenyls (2011)	Construction of on-site Corrective Action Management Unit (CAMU) on portion of plant site; to be used for disposal of TSCA remediation waste (≥ 50 ppm), including sediments from Grand Calumet River. Although not specified, description indicates that unit would not meet certain requirements of § 761.75(b) – e.g., requirement for 50 ft distance between bottom liner and historical high water table.	EPA made risk-based determination that disposal of PCBs ≥ 50 ppm in CAMU would not pose unreasonable risk of injury to health or environment.

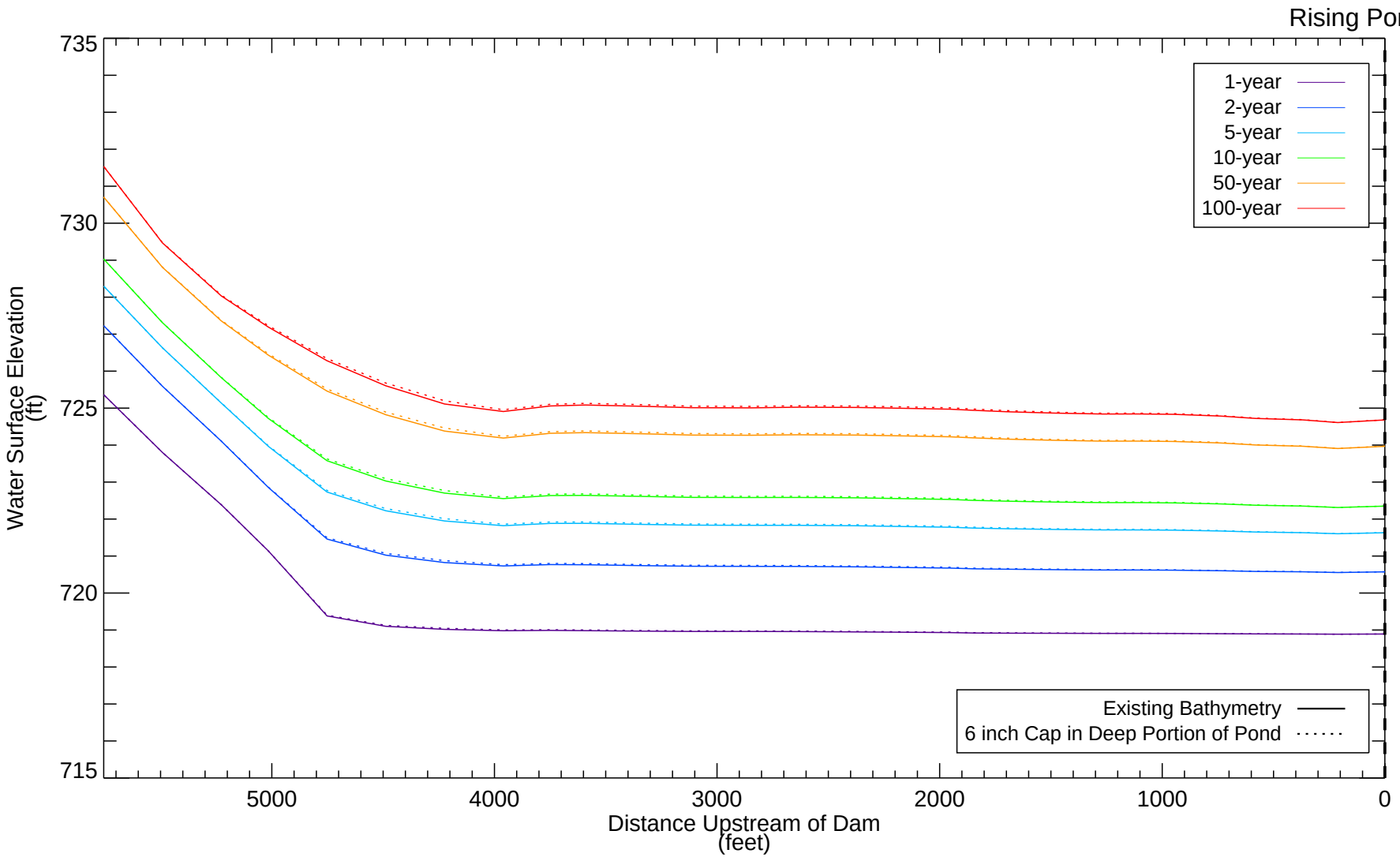

Figure 1

Spatial Distribution of Predicted Water Surface Elevation in Rising Pond

Note: Water surface elevation is plotted along the approximate centerline.

ANCHOR QEA