ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re: General Electric Company 2020 REVISED PERMIT MODIFICATION TO 2016 REISSUED PERMIT ISSUED TO GENERAL ELECTRIC COMPANY, UNDER THE RESOURCE RECOVERY AND CONSERVATION ACT, FOR THE HOUSATONIC RIVER "REST OF THE RIVER," Permit No. MAD002084093	)	RCRA Appeal No. 21-01

BRIEF OF HOUSATONIC RIVER INITIATIVE AND HOUSATONIC ENVIRONMENTAL ACTION LEAGUE FOR REVIEW OF 2020 REVISED FINAL PERMIT MODIFICATION TO THE 2016 RCRA PERMIT ISSUED TO GENERAL ELECTRIC COMPANY FOR REMEDIATION OF THE HOUSATONIC RIVER "REST OF RIVER"

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GLOSSARY OF TERMS

2016 GE Petition	Petition of General Electric Company for Review of Final Modification of RCRA Corrective Permit Issued By EPA Region 1, before the Environmental Appeals Board, dated November 23, 2016
2016 Permit	October 2016 Final Modification of the Reissued RCRA Permit
2016 Response to Comments	October 2016 EPA Response to Comments on Draft Permit Modification and Statement of Basis
2017 Region Response	Region 1's Response to General Electric Company's Petition for Review of Final RCRA Corrective Action Permit Modification Issued by Region 1, dated February 14, 2017
2018 Decision	Decision of the Environmental Appeals Board, In re General Electric Company, RCRA Appeal Nos. 16-01 to 16-05, dated January 26, 2018
2020 Permit	December 2020 Revised Final Permit Modification to the 2016 Reissued RCRA Permit for the Rest of River
2020 Response to Comments	December 2020 Response to Comments on Draft 2020 Permit Modification
2020 Statement of Basis	July 2020 Statement of Basis for EPA's Proposed 2020 Revisions to the Remedial Action for the Housatonic River "Rest of River"
ACEC	Area of Critical Environmental Concern
A.R.	Administrative Record
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601, et seq.
Commonwealth	Commonwealth of Massachusetts
Decree	Consent Decree in United States et al. v. General Electric Company, Civil Action No. 99-30225-MAP et seq. (October 27, 2000)
EAB	Environmental Appeals Board

EPA	Environmental Protection Agency
GE	General Electric Company
HEAL	Housatonic Environmental Action League
HRI	Housatonic River Initiative
MNA	Monitored Natural Attenuation (synonym of Monitored Natural Recovery)
MNR	Monitored Natural Recovery (synonym of Monitored Natural Attenuation)
NCP	National Contingency Plan, 40 C.F.R. Part 300
PCBs	Polychlorinated biphenyls
Petitioners	HRI and HEAL, collectively
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act, 42 U.S.C. § 6901, et seq.
Region	U.S. Environmental Protection Agency, Region 1
River	Housatonic River
Settlement	February 2020 Settlement Agreement reached between GE, the Region, and several other parties
Site	Rest of River portion of the Housatonic River
Statement of Work	Rest of River Statement of Work, Prepared for GE, June 2020
TSCA	Toxic Substances Control Act
UDF	Upland Disposal Facility
UDF Site	Proposed Upland Disposal Facility location at former Lane Construction Corp. sand and gravel mining operation; also referred to as the "Woods Pond" site due to its close proximately to Woods Pond

INTRODUCTION

HRI and HEAL are Massachusetts and Connecticut based non-profit citizens advocacy groups that have worked persistently for over two decades to ensure a protective cleanup of the PCBs that General Electric ("GE") dumped for years into the Housatonic River.[1] The areas known as the "Rest of the River" are currently contaminated with PCBs and have not been cleaned up. This Appeal concerns whether GE, the responsible party, will ultimately be required to clean up the contamination in the River in a manner that is truly protective of human health and the environment and that respects the interests of the surrounding communities.

In the 2020 Permit issued to GE, the Region selected a Rest of River remedial action that would leave large amounts of PCB waste in an Upland Disposal Facility ("UDF") next to the River, relies entirely on excavating and dumping, rather than treating PCBs, and would leave PCBs unremediated in large stretches of the River. This Appeal challenges three aspects of the selected remedial action and Permit: 1) disposal at the UDF; 2) the failure to consider treatment alternatives; and 3) the failure to set binding performance standards for many stretches of the River. These remedial action decisions, and the secret process used to reach them, violate the 2000 Consent Decree, RCRA, CERCLA, and the NCP.

[1] Petitioners have standing because they submitted timely comments on the draft 2020 Permit. See **Attachment 1**, Petitioners' Public Comments.

BACKGROUND

The Housatonic River watershed is one of the most biologically rich areas in Massachusetts and supports many species found nowhere else in the state, including numerous plants and animals protected under the state Endangered Species Act.[2] The River is also an important source of recreation, including, hunting, fishing, trapping, hiking, canoeing, kayaking, bird watching, and wildlife viewing.[3]

From approximately 1932 through 1977, GE manufactured equipment containing PCBs at a plant in Pittsfield, Massachusetts.[4] For decades, GE dumped PCBs and other hazardous substances into the environment, causing widespread contamination of soils, groundwater, and sediment throughout the Housatonic River and floodplains from the Pittsfield plant to Long Island Sound.[5] The U.S. Environmental Protection Agency, Region 1 (the "Region"), GE, and other parties entered into a Consent Decree, which required GE to undertake cleanup of contaminated soil and River sediments and pay damages in exchange for a release of liabilities and contribution protection. After public notice and comment, the Decree was entered in and approved by the U.S. District Court for the District of Massachusetts on October 27, 2000.

Today, more than 20 years later, the River is still highly contaminated. The Region estimates that "between 100,000 to nearly 600,000 pounds of PCBs" remain in the Rest of the River.[6] According to the Region, "the rate of natural degradation of the type of PCBs in the

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2 In re GE, RCRA Appeals 16-01 to 16-05, 17 E.A.D. 434, 455 (E.A.B. 2018).

3 In re GE, 17 E.A.D. at 455, *supra* n.2.

4 U.S. Mem. in Support of Mot. to Enter Degree at 11, USA v. GE, Nos. 99-30225, 99-30226, 99-30227-MAP (D. Mass. July 20, 2000), https://semspub.epa.gov/work/01/10662.pdf.

5 Id.

6 **Attachment 2**, Hazardous Waste Program, Site Update (January 2011).

Housatonic River is very slow -- on the scale of hundreds of years."[7] The Region has found that PCBs are carried over dams and have made their way into Connecticut -- a distance of approximately 140 miles.[8]

This appeal concerns a portion of the River site known as the "Rest of River," which includes sediments and bank soils downstream of the confluence of the East and West Branches (approximately two miles downstream of the GE plant) where contaminants have migrated from the GE plant area.[9] The Decree set forth procedures for studying the Rest of River and for designing and implementing a remedy under both CERCLA and RCRA. The Rest of River cleanup plan was to be designed and implemented as a CERCLA remedial action in accordance with a corrective action RCRA permit to be issued by the Region.[10]

In 2016, the Region issued its cleanup decision and a RCRA permit, which called for the contaminated soil and sediment removed from the River to be disposed of exclusively at an existing licensed out-of-state disposal facility.[11] The Region considered and rejected three proposed onsite disposal locations, including a former sand and gravel mining area (the "UDF Site") located approximately 1,500 feet from Woods Pond. Woods Pond is within a portion of the River that was designated by the Commonwealth as an Area of Critical Environmental

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7 Id.

8 See id.; EPA, "Fast Facts: Housatonic River PCBs," https://www.epa.gov/ge-housatonic/understanding-pcb-risks-ge-pittsfieldhousatonic-river-site#FastFacts.

9 Degree, ¶ 4.

10 Id., ¶ 22.z.

11 2016 Permit, https://semspub.epa.gov/work/01/593921.pdf.

Concern ("ACEC").[12] The UDF Site is approximately 1,000 feet uphill from the River and adjacent to October Mountain State Forest, the largest state forest in Massachusetts.[13]

The Region based its decision to require offsite disposal on several significant factual findings.[14] For one, the Region weighed the short-term costs of transporting contaminated material to an existing out-of-state facility against the long-term costs associated with future maintenance and risks if a new landfill were created. The Region found that there was a "non-zero" potential for an onsite landfill to fail to control PCB releases in the long term.[15] The Region recognized that onsite disposal would burden the Housatonic watershed with the associated risks and costs, including ongoing monitoring and maintenance far into the future.[16]

The Region also weighed the fact that there was persistent and vigorous community opposition to onsite disposal, noting that GE stood "alone" in advocating for onsite disposal.[17] The Region recognized that the Decree, consistent with RCRA and CERCLA, envisioned active public participation in the remedy selection process, and that public participation would be "empty" if the Region did not consider the wishes of the community.[18] The Region cited prior decisions where offsite disposal had been selected largely because of strong community

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[12] In re GE, 17 E.A.D. at 569; see 301 Code Mass. Regs. §12.00; **Attachment 3**, ACEC Designation (findings and support for ACEC designation following "extensive" review of complex ecosystems, wetlands, floodplains, coldwater tributaries, wildlife expanses, rare species habitat, and forested slopes of October Mountain State Forest).

[13] Statement of Basis for Proposed 2020 Revisions to Remedial Action for Housatonic "Rest of River" at 14 (July 2020), https://semspub.epa.gov/work/01/647211.pdf.

[14] See Response to Comments on Draft Permit at 38-39, 244-45, 251, 261-66 (Oct. 2016), https://semspub.epa.gov/work/01/593922.pdf.

[15] Id. at 244-45.

[16] Id. at 251.

[17] Id. at 262.

[18] Id. at 263.

opposition.[19] The Region specifically mentioned the work done by Petitioner HRI and noted its opposition to on-site disposal.[20] The Region also found that onsite disposal would be less effective at containing waste because an onsite facility would not meet the siting requirements for PCB landfills under the TSCA.[21] The Region found that it would not be "appropriate" to waive the TSCA's requirements.[22]

The Region specifically rejected the UDF Site as an unsuitable disposal location because the UDF Site is composed of permeable soils, is located in close proximity to the River and drinking water sources, is within an ACEC, and sits above a medium yield aquifer.[23] Further, Massachusetts solid waste landfill regulations prohibit solid waste disposal within an ACEC.[24]

The Commonwealth also expressed strong views that PCB-contaminated material must not be disposed of in any landfill near the River, stating: "Under no circumstances should there be a hazardous waste landfill constructed in Berkshire County for the excavated material. To do so plainly adds insult to injury. . . . A disposal facility in or around Woods Pond is clearly not appropriate."[25]

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19 Id. at 266.

20 Id. at 265-66.

21 Id. at 238-39.

22 Id. at 239.

23 Id.

24 See 310 Code Mass. Regs. §16.40(4).

25 See Commonwealth Comments on Revised Corrective Measures Study at 2, 14 (January 31, 2011), https://semspub.epa.gov/work/01/477423.pdf.

GE appealed the 2016 Permit to the EAB, including specifically the selection of offsite disposal. The Region filed a Response to that appeal and defended its conclusion that offsite disposal was "more protective of human health and the environment" than onsite disposal.[26] The Region attached a comparison of alternatives to its Response, with offsite disposal referred to as "TD 1" and onsite disposal referred to as "TD 3."[27] The Region explained that TD 1 best controlled sources of releases and had no long-term adverse environmental impacts in the Rest of the River area.[28] TD 3, on the other hand, held the potential for releases of PCBs to the River if not operated properly.[29] TD 3 also relied heavily on long-term operation, maintenance, and monitoring, conflicted with the designation of the area as an ACEC, and would face considerable public opposition.[30] The Region noted that the Commonwealth had a strong preference for offsite disposal.[31]

The EAB issued a decision on January 26, 2018. The 2018 Decision remanded in part and denied review in part. The EAB found that the Region had not adequately explained its conclusion that a waiver of the TSCA requirements was not appropriate.[32] The matter was remanded for the Region to provide that explanation and to reconsider offsite versus onsite disposal.[33] The EAB expressly took no position on whether offsite or onsite disposal was a

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[26] **Attachment 4**, EPA Response Brief at 16, In re GE, RCRA Appeal 16-01 (filed with EAB Feb. 14, 2017). Petitioners also appealed the 2016 Permit.

[27] See Excerpts from Comparative Analysis, Exhibit 10 to 2017 EPA Response Brief.

[28] Id. at 62, 65.

[29] Id. at 61.

[30] Id. at 65, 74.

[31] Id. at 75.

[32] In re GE, 17 E.A.D. at 568, *supra* n.2.

[33] Id. at 561.

better option and in no way required or even encouraged the Region to change its conclusion that offsite was the best choice.[34] At the same time, the EAB also rejected an appeal by Petitioners that the 2016 Permit did not call for treatment of the PCB wastes and did not sufficiently remediate the PCBs in the River.[35]

Not long after the remand by the EAB, the Region, GE, and several other interested parties entered into secret settlement negotiations, from which members of the public were excluded.[36] The public was not privy to any proposals that were considered or the positions of the parties during the negotiation, and no administrative record of the proceeding was made. In February 2020, the Region, GE, and several other interested parties announced a Settlement. As part of the Settlement, the Region "pledged to propose a modification to the Permit consistent with the terms of the Agreement."[37] The Settlement provided for the creation of a new 20-acre landfill, the Upland Disposal Facility ("UDF"), for disposing of contaminated material at the formerly rejected sand and gravel site in Lee. The Settlement also pledged removal from the River of 3,500 additional pounds of PCBs, and provided for payment of $63 million to the municipal governments that agreed to support the Settlement.[38] Following a pattern it has

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[34] Id. at 569.

[35] Id. at 536-40, 577-83.

[36] HEAL was not invited to negotiations, and was specifically excluded when it told the Region that it could not keep the negotiations secret from its own members; HRI was invited but was excluded from negotiations when it made clear that it could not support onsite disposal.

[37] EPA, Public Presentation on Rest of River Cleanup Plan at 7 (June 2020), https://semspub.epa.gov/work/01/647216.pdf.

[38] Settlement at 13-14 (SEMS-643538) (Feb. 10, 2020), https://semspub.epa.gov/work/01/643538.pdf at pages 13-14.

followed for years,[39] GE also agreed to make large payments to organizations, such as the Massachusetts Audubon Society, that agreed to support the Settlement.[40]

In July of 2020, the Region proposed the agreed upon remedy by issuing a new draft permit and Statement of Basis.[41] Although it had already committed to the remedy in the Settlement, the Region went through a façade of taking public comments in the summer of 2020. Following the close of the public comment period, the Region adopted the permit ("2020 Permit")[42] and simultaneously issued a Response to Comments.[43] Although the public vociferously opposed the remedy selected in the draft Permit, the Region proceeded to issue the Permit called for by the Settlement.

The 2020 Permit provides for contaminated sediments to be pumped into the UDF through a massive hydraulic pumping system in Woods Pond.[44] The Permit allows soils and sediment with very high concentrations of PCBs to be placed at the UDF as long as GE determines that the "volume-weighted average" concentration of less than 50 mg/kg is

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[39] See **Attachment 5**, "GE Distributes Dollars to Influence River Debate."

[40] Settlement at 18, *supra* n.38.

[41] Statement of Basis, *supra* n.13; Draft 2020 Permit (July 1, 2020), https://semspub.epa.gov/work/01/647214.pdf.

[42] 2020 Revised Final Permit Modification to the 2016 Revised RCRA Permit for the Rest of River ("2020 Permit").

[43] Response to Comments on Draft Permit (December 2020), https://semspub.epa.gov/work/01/650441.pdf.

[44] Settlement §2.K, *supra* n.38; 2020 Permit at 24-28, https://semspub.epa.gov/work/01/650440.pdf.

maintained for the facility,[45] even though the UDF Site has geological characteristics that render it highly inappropriate for placement of a landfill.[46]

Although the Region reconsidered its approach to disposal of PCBs from the River after the remand from the EAB, the Region still did nothing to incorporate, any form of treatment of PCBs. The Petitioners, and other members of the public, have been urging for years that the Region incorporate alternative treatment technologies into the remedy for the Rest of the River, rather than landfill all the excavated PCB wastes.[47] Yet, in the three years after the remand, just as in the 17 years prior, the Region still did not conduct or order even a single pilot test of bioremediation or thermal desorption treatment technologies on River sediments.[48] The Region did not solicit proposals for treatment of PCBs at the Site, and when the Petitioners took the initiative and identified businesses offering treatment solutions, the Region turned them away. Likewise, the 2020 Permit does not incorporate treatment technologies to destroy any of the hundreds of thousands of pounds of PCBs that GE dumped into the River,[49] other than a vague promise to explore opportunities in the future – a promise the Region has made many times before but never carried out.

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45 2020 Permit at E-1, *supra* n.42.

46 See **Attachment 6**, David J. De Simone, PhD, Geological Evaluation of UDF Site at 5 ("the proposed PCB landfill location is very likely to result in leachate contamination of surficial and bedrock aquifers if leachate penetrates the landfill liners. . . . this location is a very poor choice that may result in PCB contamination of the sand and gravel aquifer and the underlying Stockbridge marble aquifer").

47 **Attachment 1**, Petitioners' Public Comments at 7-10.

48 2020 Response to Comments at 23-31, *supra* n.43.

49 E.g., Statement of Basis at 25, *supra* n.13 ("treatment is not part of any of the major components of the 2020 Alternative").

The Permit provides for removal of an estimated mass of 50,500 pounds of PCBs from the River.[50] That is about 3,500 pounds more than under the 2016 Permit[51] but is still a fraction of the PCBs that currently remain in the River. Using the Region's lowest estimate of 100,000 pounds, only about half of the PCB mass in the River will be removed, and using its high-end estimate of 600,000 pounds, only 8% of total PCB mass will be removed. When the Settlement was announced, the Region described it as a "more comprehensive"[52] cleanup and said that removing more contaminants from the River would "improve the cleanup plan."[53] The Region told the public that removing more contaminants form certain sub-reaches of the River meant "reduced risk of release of residual PCBs back into the environment.[54] The Region's Statement of Basis, however, did not explain how this risk was evaluated or how it was determined that the level of risk posed by the Permit was acceptable.[55]

Moreover, while claiming to remediate more of the River, the 2020 Permit proposes to do exactly nothing for numerous long stretches of the River. Although the PCBs in the River are resistant to degradation[56] and will remain in the River for centuries, the only remedy proposed by the 2020 Permit for numerous long "reaches" of the River is "monitored natural recovery."

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50 June 2020 Presentation at 40, *supra* n.37.

51 Id. at 41

52 News Release from Region 1, "Landmark Agreement Will Ensure Faster and More Complete Cleanup of Housatonic River in Berkshire County" (Feb. 10, 2020), https://semspub.epa.gov/work/01/643764.pdf.

53 EPA, Fact Sheet on Settlement at 3 (Feb. 2020), https://semspub.epa.gov/work/01/643539.pdf.

54 EPA, Public Information Session Slides, Lee, Massachusetts (Feb. 19, 2020), https://semspub.epa.gov/work/01/644044.pdf.

55 See generally Statement of Basis, *supra* n.13.

56 **Attachment 7**, EPA Community Update at 4 (Aug. 2009).

Indeed, even where the 2020 Permit proposes "monitored natural recovery," it does not establish performance standards, it does not establish a timeline to meet performance standards, and it does not contain a contingent solution if performance standards cannot be met.

STANDARD OF REVIEW

Under the Administrative Procedure Act, an administrative agency's action must be set aside if it was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). In this case, the applicable law includes RCRA, CERCLA, the NCP, and the Decree. U.S. v. Comunidades Unidas Contra la Contaminacion, 106 F. Supp. 2d 216, 220 (D.P.R. 2000).

Agency action is arbitrary and capricious where it reverses course from prior factual determinations without adequate justification. See Indigenous Envt'l. Network v. United States Dep't of State, 347 F. Supp. 3d 561, 583-84 (D. Mont. 2018) (stating that agency's conclusory statement did not justify course reversal and citing principle that an agency cannot disregard contrary or inconvenient factual determinations it made in the past); Friends of Alaska Nat'l Wildlife Refuges v. Bernhardt, 381 F. Supp. 3d 1127, 1143 (D. Alaska 2019) (agency decision to enter agreement was arbitrary and capricious where it ignored prior determinations concerning environmental impact of road); Am. Wild Horse Pres. Campaign v. Perdue, 873 F.3d 914, 927-28 (D.C. Cir. 2017) (arbitrary and capricious for agency to "whistle past" a "factual graveyard" and evade an established pattern of agency conduct and formalized positions); Humane Soc'y of the United States v. Locke, 626 F.3d 1040, 1053 (9th Cir. 2010) (agency action arbitrary and capricious where agency did not explain determination that was inconsistent with earlier factual determinations).

The failure to actually consider reasonable alternatives is also, by definition, arbitrary, capricious and an abuse of discretion. International Ladies' Garment Union v. Donovan, 722 F.2d 795, 815 (D.C. Cir. 1983) ("the failure to consider reasonable alternatives to a proposed action or regulation "is antithetical to reasoned decision making" and administrative law principles); Sierra Club v. Watkins, 808 F. Supp. 852, 871 n.32 (D.D.C. 1991) ("the Department's failure to consider alternatives adequately was an abuse of discretion under 5 U.S.C. §706").

ARGUMENT

I. The Region's Decision to Reverse Course and Require Onsite Disposal is Arbitrary, Capricious, an Abuse of Discretion, and Contrary to Law.

The Region's decision to require onsite disposal is based upon a complete reversal of its prior factual findings without any new investigation or change of circumstances. That is the very definition of arbitrary and capricious agency conduct. See, e.g., Indigenous Envt'l. Network, 347 F. Supp. 3d at 583-84; Friends of Alaska, 381 F. Supp. 3d at.

Prior to the secret settlement negotiations in 2020, the Region concluded that onsite disposal was inappropriate because it was less protective of human health and the environment than offsite disposal. The Region based that determination on numerous factual findings, including: the fact that the UDF Site was not suitable because of soil permeability and its location near a drinking water source and above a medium yield aquifer; the fact that the UDF Site was in an ACEC; the fact that onsite disposal posed a risk of release to the River; the strong community opposition to onsite disposal; and the fact that TSCA requirements would not be met by onsite disposal.

The EAB, in its 2018 Decision, did not reach a contrary conclusion on any of these findings. Instead, it held that the Region failed to *explain* why a waiver of the TSCA regulation was inappropriate.[57] The EAB certainly did not compel the Region to reach unsupported factual determinations inconsistent with its prior factual findings.

However, after its secret Settlement negotiations, the Region completely abandoned its prior determinations regarding the risks of onsite disposal and suddenly decided that such disposal was now the best option. Even assuming the Region has justified its new finding that a TSCA waiver is warranted,[58] **none of the other factors it previously relied on in support of offsite disposal has changed**: (a) the Region has not demonstrated the suitability of the UDF Site, despite previously concluding that that site was unsuitable; (b) without explanation, the Region has abandoned respect for Massachusetts' prohibition against siting a toxic waste landfill within an ACEC; (c) the Region has not resolved its prior finding that disposing of PCBs near the River poses long-term risks of re-contaminating the River; and (d) the Region has disregarded overwhelming community opposition to onsite disposal of the PCBs. The Region's

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57 In re GE, 17 E.A.D. at 561, *supra* n.2.

58 A decision to waive TSCA requirements should not be determinative of whether onsite disposal is best, especially here where the disposal is geologically unsuitable, environmentally problematic, and adjacent to the River. The construction and maintenance practices cited by the Region in its decision, after remand, to issue a TSCA waiver do not outweigh the geologic and environmental factors which the Region found made the UDF Site unsuitable. To support its 2020 TSCA waiver, the Region stated that the protocols for handling PCB-contaminated material do not present an unreasonable risk. 2020 Permit at D-1, *supra* n.42. Yet the only references to the UDF are a description of its features, an assertion that it will be subject to monitoring, and an expectation that it would have *estimated* PCB concentrations between 20-25 ppm (which is not binding on GE). The geologic and environmental characteristics of the UDF Site are not addressed. The serious concerns the Region had with onsite disposal remain.

complete reversal of these findings, dictated by its secret Settlement negotiations, is arbitrary, capricious, and contrary to law.

A. The Region Failed to Demonstrate that the UDF Site is Suitable after Previously Finding it Unsuitable.

The Region has long understood that the UDF Site is unsuitable for disposal of PCBs. In 2017, the Region concluded that the site is located on permeable soil, is above a medium yield aquifer, is close to drinking water sources, and could release contaminants to the River.[59] Despite these prior findings, the Region did not conduct further study before selecting the site for the UDF in 2020.

In fact, as set forth in the report of Petitioners' expert, Dr. David J. DeSimone, the UDF Site is a "textbook example of where not to locate a landfill."[60] The UDF Site is an old sand and gravel mining pit. The subsurface geology is in mapped "ice contact stratified drift," which typically consists of a variable mixture of highly permeable sand and gravel and which usually lacks thick impermeable till above the bedrock.[61] Such high permeability sediments are "the worst natural sediments to use for a PCB landfill because they allow easy migration of contaminants in the subsurface."[62]

To make matters worse, these sediments are not arranged in neat horizontal layers but are composed of abrupt and sharp sediment texture changes over both lateral and vertical distances,

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[59] 2016 Response to Comments at 239, *supra* n.14.

[60] **Attachment 6**, De Simone Report at 4.

[61] Id. at 1.

[62] Id. at 1-2.

making it difficult to predict groundwater flow in this area.[63] There is also no indication of till present beneath the sand and gravel in sufficient thickness or continuity to present a barrier to subsurface flow of contaminants.[64]

In addition, the type of bedrock beneath the sand and gravel is particularly unsuitable for a landfill. The bedrock at the UDF Site consists of carbonate rock containing fractures or joint planes that are pathways for contaminants to migrate.[65] This structure would enable any leachate to enter the bedrock and move rapidly toward the River.[66] As the agency has itself acknowledged,[67] any liner system will eventually fail, and when it does, the geology of this site makes it very likely that there will be contamination of the underlying aquifer and, consequently, the River. The Region admits that the flow of groundwater from the UDF is toward the River and that the bottom of the UDF still sits higher than the River.[68]

The Region's decision to use the UDF Site for the disposal of PCBs runs contrary to all of its prior findings. The characteristics of the site have not changed: it is still on permeable soil, it is still above a medium yield aquifer, it is still close to the River, it is still close to a drinking water supply,[69] and it is still in an ACEC. The Region's newfound justification that the UDF

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63 Id. at 2-3.

64 Id. at 3.

65 Id.

66 Id.

67 Solid Waste Disposal Facility Criteria, 53 Federal Register 33345 (August 30, 1988), https://tile.loc.gov/storage-services/service/ll/fedreg/fr053/fr053168/fr053168.pdf ("… even the best liner and leachate collection systems will ultimately fail due to natural deterioration…." See also G. F. Lee, PhD, et al, "Deficiencies in Subtitle D Landfill Liner Failure and Groundwater Pollution Monitoring," https://acwi.gov/monitoring/conference/98proceedings/Papers/61-lee.htm.

68 2020 Response to Comments at 20-21, *supra* n.43.

69 The Region now tries to justify its apparent disregard for local drinking water supplies by stating that the flow of groundwater from the UDF will be away from such supplies. 2020

Site's proximity to the River will enable a quicker cleanup is obviously a makeweight argument. The idea that the Region's main priority is speed -- after taking over twenty years to develop a Rest of River remediation plan -- is almost laughable.

Critically, the Region does not challenge Petitioners' description of the geology of the site in its Response to Comments or offer any contrary evidence. Nor does the Region claim that it engaged in its own geologic assessment following the remand to support its change of position on the suitability of the UDF Site. Instead, the Region asserts that the UDF will have certain safeguards to reduce the risks of releases to the River.[70] But previously the Region found that an onsite disposal facility *would* eventually leak, fail, or be compromised by human error or natural unforeseen events.[71] The Region's previous analysis as to site suitability was not about weighing offsite disposal against a particular type of landfill – it was about weighing offsite disposal against any form of onsite disposal. The Region previously found that offsite disposal was more protective of the River than any onsite option since any onsite option carries a risk of release over the long-term. Obviously, no onsite facility can be guaranteed forever against leakage, especially considering the effects of climate change.[72] Monitoring wells can also eventually fail.

Response to Comments at 20-21. This does not explain the Region's change in position on this issue. The Region has not claimed that the flow of groundwater was any different when it raised its former concerns. In addition, the site geology makes it difficult to predict groundwater flow. De Simone Report at 2.

[70] 2020 Response to Comments at 11-13, *supra* n.43. The Region mentions that there are two other landfills located near the proposed UDF site, but that does mean the site was suitable for those landfills. Historically, landfills in areas such as this were placed there out of expediency, not geologic concern. De Simone Report at 4. Indeed, there is evidence the existing landfills have already begun to leak. Id.

[71] See 2016 Response to Comments at 239. Now the Region brushes off concerns about how leaks could be repaired after the landfill is full, stating that leaks are unlikely to occur. 2020 Response to Comments at 19.

[72] Compare 2016 Response to Comments at 162 (stating, in context of advocating for removal of material from Woods Pond, that "even with the best intentions and significant resources, it

There is also a risk that the pumping system the Region proposes to use to fill the UDF will leak. Offsite disposal, as the Region previously found, is free of these risks to the River.

B. The Region's Remedy Selection Was Not the Result of Careful Consideration of Alternatives Laid Out in an Administrative Record, But Rather the Result of Closed-Door Settlement Negotiations.

In 2000, the Region stated that, "public involvement is a very important component to the Rest of River process."[73] At that time, the Region promised to make proposals for the Rest of the River available to the public.[74] The NCP in fact requires the Region to "ensure the public appropriate opportunities for involvement in . . . [the] selection of remedy."[75]

In fact, however, the remedy selection process for the Rest of the River was not the result of applying governing remedy-selection standards, such as those set forth in the NCP[76], to facts; instead, the remedy for the Rest of River was the result of secret negotiations without any actual opportunity for public input. Petitioners, despite their years of advocacy work and prior involvement in the River remedy selection process, were effectively shut out of the negotiations because, in the case of HEAL, it would not agree to keep the negotiations secret from its members and, in the case of HRI, because it refused to support onsite disposal. Nor did the

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is impossible to guarantee that there will never be a dam breach or failure in perpetuity . . . including unknowns or uncertainties associated with potential climate change").

[73] EPA Response to Comments on Proposed Decree at 55, US v. GE, No. 99-30225-MAP (D. Mass. July 20, 2000), https://semspub.epa.gov/work/01/10664.pdf.

[74] Id.

[75] 40 C.F.R. §300.430(c)(2)(ii)(A).

[76] The NCP requires a detailed analysis of viable approaches to remediation, including an assessment of individual alternatives against each of nine evaluation criteria and a comparative analysis focused upon the relative performance of each alternative against those criteria. 40 C.F.R. §300.430(e)(9).

Settlement Agreement comply with the provisions for settlement agreements under CERCLA, which require judicial review and entry as a consent decree.[77]

When the Settlement decision was announced, the public was outraged at being excluded.[78] In public meetings, hundreds of citizens spoke out against the Settlement, and in particular against onsite disposal.[79] By contrast, the entities speaking in favor of onsite disposal were municipalities and organizations receiving millions of dollars under the Settlement.

Moreover, public comments that revealed what happened in the secret settlement negotiations – which were not made part of any administrative record – make plain that the decision-making process in the negotiations bore no resemblance to the application of statutory standards to environmental facts. A municipal official who had been involved in the negotiations expressed that the selectmen were concerned "that GE would exhaust us" through litigation or would "find an ally of the [Trump] administration in Washington." He worried that if GE fought and won, there would be three new landfills in Berkshire county instead of one. He told citizens, "All of the parties agreed to negotiate confidentially, and without it we would never have been able to reach a conclusion of any kind."

The Region gave a similar reason for its onsite disposal decision in a "Frequently Asked Questions" sheet it published in July of 2020. In response to the question "Why not take all of the dredged material offsite for disposal?" the Region said:

> If EPA moved forward with the 2016 Permit without changes, there was a chance that the EAB or a federal court would again remand our decision selecting off-site disposal exclusively, which would lead to indefinite delays, and a possibility of a

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77 42 U.S.C. §9644.

78 See Video of Settlement Public Information Session, Lee, Massachusetts at 18:26-22:25 (Feb. 19, 2020) (SEMS-647202), https://vimeo.com/392751847.

79 See A.R. Collection 39714, https://semspub.epa.gov/src/collection/01/SC39714/.

> decision allowing disposal of all materials on site in the three GE-proposed locations in the Berkshires.[80]

That is not a valid decision-making criterion for selecting a remedy.

It was only after the decision as to the remedy was already made -- by settlement negotiations -- that the Region sought public "input." The Region's information sessions and public comment period just gave lip service to RCRA's requirement of notice and comment.[81] This after-the-fact checking of boxes was not a fair substitute for evaluating the risks, benefits, and community acceptance, as required by RCRA, CERCLA and the NCP.

The Region's decision to select a remedy for the Rest of River out of public view is particularly egregious when viewed in the context of the remedy selected. Despite years of strenuous opposition to onsite disposal by not only the public and the Commonwealth, but also the Region itself, the Region suddenly decided that constructing an onsite disposal facility near the River was the only viable remedy. For this additional, compelling reason, the Region's remedial action decision was arbitrary, capricious, an abuse of discretion, and not in accordance with law.

C. The Region Arbitrarily Abandoned its Concern that Disposing of PCB Waste in an ACEC is Wrong for the Environment.

The proposed UDF Site is the same site referred to in the prior EAB record as the Woods Pond site. That site is in an Area of Critical Environmental Concern, or "ACEC." The Woods

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[80] EPA, "Frequently Asked Questions on EPA's Proposed Revisions to the Remedial Action for the Housatonic River 'Rest of River'" at 1, https://semspub.epa.gov/work/01/647217.pdf

[81] See 40 C.F.R. § 124.10. The Decree also requires public notice and comment on a proposed Rest of River permit *prior* to engaging in dispute resolution (at ¶ 22), and if dispute resolution is invoked, an administrative record of the dispute with all statements of position and supporting documentation must be maintained (at ¶ 136(a)).

Pond ACEC includes all nine of the inland resource features listed in the ACEC Regulations: fisheries, wetlands and surface waters, water supply areas, floodplains and steep slopes, agricultural and forested areas, historical and archaeological resources, wildlife and rare species habitats, and public recreational and natural areas. It contains an exceptional amount of biodiversity, including 32 rare species and 46 Certified and Potential Vernal Pools. It also contains 93% of the area delineated as viable habitat by the Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program. GE's plan is to run a pipeline from Woods Pond to the UDF via an area of mapped "Core Habitat,"[82] which are areas designated as necessary to promote the long-term persistence of Species of Conservation Concern (those listed under the Massachusetts Endangered Species Act and identified in the State Wildlife Action Plan), exemplary natural communities, and intact ecosystems.[83] The UDF will directly impact 5.85 acres of Prime Forest Land.[84] The Region acknowledges the sensitive nature of the UDF Site and does not claim that the ACEC designation has been changed in any manner.[85] Prior to the Settlement, the Region had been highly concerned about placing a disposal facility in an ACEC, which is prohibited by Massachusetts regulations.[86]

The Region's prior justifiable concerns about the ACEC designation have now vanished. In its 2020 Response to Comments, the Region tries out a new theory: that the ACEC regulation does not apply because the UDF will be a "PCB Remediation landfill" and not a "solid waste

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82 Mem. to EPA from Bluestone Envt'l. Group. re Comparative Analysis – GIS Support (June 10, 2020), https://semspub.epa.gov/work/01/647045.pdf

83 Massachusetts Dep't of Fish & Game, MassGIS Data: BioMap2 Webpage: https://docs.digital.mass.gov/dataset/massgis-data-biomap2.

84 Bluestone Mem., *supra* n.82.

85 See 2020 Permit at C-16, *supra* n.42.

86 See 310 Code Mass. Regs. §16.40(4)(d).

landfill."[87] The Region does not provide any explanation or support for this novel theory and its 2020 Statement of Basis made no mention of the theory. Therefore, this argument should be disregarded. The theory also does not take into account the notion that an ACEC designation is a formal designation that an area cries out for environmental protection, not the building of a massive hydraulic pumping system and multi-acre PCB landfill.

In its 2020 Response to Comments, the Region goes on to state that, even if the ACEC regulation is applicable, the Region has determined that compliance with the regulation (by not placing a disposal site in that area) would create a *greater* risk to the environment than would the UDF.[88] This conclusion is nonsensical on its face – it is hard to imagine any set of facts in which disposing of all contaminated waste at a location far away from the River would create a greater risk to the River environment than disposing of the waste at a site only 1,000 feet from the River.

The Region also claims that the UDF Site is "already damaged and altered" and there is alleged existing contamination from current nearby industrial uses.[89] There is no support, however, for the proposition that an ACEC area must be pristine. Moreover, any existing contamination of the area would, if anything, factor against further disturbing the site to construct the UDF, thereby risking movement of contamination toward the River. Moreover, the existing contamination of the UDF Site is not new; it existed back in 2014 when the Region opposed disposing of waste within an ACEC. The Region has provided no explanation for why that fact did not alter its ACEC conclusion in 2016 but is somehow now determinative.[90]

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87 2020 Response to Comments at 63, *supra* n.43.

88 Id.

89 2020 Permit at C-11, *supra* n.42.

90 The Region has not claimed that the condition of the site materially changed following the 2009 ACEC designation.

Similarly, the Region's statement that the UDF will have certain built-in safeguards[91] does nothing to explain why that justifies the Region's change in position. When the Region previously considered onsite disposal options, those options were also going to contain protective measures, including a double liner, a cover, and a double leachate collection system – it was not as if the onsite proposal involved simply dumping waste in an open pit in the ground.[92]

The Region's further statement regarding unidentified "benefits" of the UDF and unidentified "risks inherent to" other disposal options[93] is conclusory and does not support a determination that burying contaminated waste 1,000 feet from the River is more protective for the environment than sending that waste to an existing offsite facility. Accordingly, the Region's complete about-face on the issue of the ACEC designation is arbitrary and unsupportable.

D. The Region Has Not Justified its Abrupt Departure from its Prior Finding that Disposing of PCBs near the River Imposes Risks to the River and Costs to the Communities.

The Region previously made clear that it favored offsite disposal because any onsite disposal solution, no matter what precautions are taken, carries risks of releasing PCB-contaminated material to the River over the long-term.[94] This risk is only reinforced by recent groundwater monitoring results from both of the capped landfills that adjoin the UDF Site, which show that they are leaching hazardous chemicals into groundwater.[95] In contrast, there is no risk

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91 2020 Permit at C-11, *supra* n.42.

92 Excerpts from Comparative Analysis at 61, *supra* n.27.

93 2020 Permit at C-11, *supra* n.42.

94 2016 Response to Comments at 244-45.

95 **Attachment 6**, De Simone Report at 2.

to the River if the material is placed offsite. The Region now disregards those concerns without justification.

The onsite disposal plan is not an effective cleanup since PCB-contaminated material will remain in the immediate vicinity of the River, forever presenting a threat of future contamination. The Region has not adequately evaluated this ongoing cost to the community, and its assertion that the remedy is cost effective is unsupported.[96] Any reduction in the upfront costs of disposal are outweighed by the long-term costs of permanent monitoring and repairing the UDF, which will continue in perpetuity and increase as the UDF ages.

The costs of onsite disposal are not limited to the risk of physical material leaking out of the UDF. Additional costs include reduction in property values, impacts on tourism, and irreparable, intangible damage to the value of the October Mountain area as a pristine, environmentally-safe sanctuary.[97] Just before issuing the 2020 Permit, the Region posted a memo from a Virginia-based contractor, Skeo, to respond to concerns raised by the public that a PCB landfill would depress property values and tourism.[98] No information is provided as to whether Skeo has the necessary qualifications to conduct a property valuation analysis for towns in Massachusetts. A Massachusetts Certified Real Estate Appraiser Audrey Cole reviewed Skeo's memo and found that Skeo did not use accepted methodologies and did not support its

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[96] 2020 Response to Comments at 2, 11, 48.

[97] The Region's claim that consideration of external costs is beyond the scope of the remand is meritless. The Region elected to completely change the location and type of disposal it had previously supported, thereby expanding the scope of the remand.

[98] Skeo Solutions, Memo on Property Data Analysis (Nov. 2020), https://semspub.epa.gov/work/01/650436.pdf.

conclusions.[99] Moreover, in 2012 Skeo gave the Region a report stating that on-site landfills *would* accelerate declines in property values nearby.[100]

Another unaccounted for cost is that the experience of immersing oneself in the natural beauty of this area is marred by the knowledge that a landfill full of toxic waste is located nearby. Massachusetts residents and visitors have already had to endure decades of loss from living next to a heavily contaminated River. The Region has failed to justify its decision to perpetuate that harm indefinitely.

E. The Region Completely Disregarded the Views of the Community.

Prior to selecting a remedy, the Region was required to consider "community acceptance" – i.e., which components of the alternatives members of the community support, have reservations about, or oppose.[101] This assessment may not be completed until comments on the proposed plan are received.[102] Prior to 2020, the Region was emphatic that the views of the communities directly affected by a proposed remedy are an important consideration in selection of that remedy.[103] The EAB did not disagree.[104]

Strong community opposition remains and was voiced repeatedly during the most recent round of public comments, despite the challenges of doing so during a pandemic and following storms that left many residents without access to the internet. There has been no change of heart

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[99] **Attachment 8**, Report of Audrey A. Cole, Certified Real Estate Appraiser.

[100] Id.

[101] 40 C.F.R. § 300.430(e)(9)(iii)(I).

[102] Id.

[103] 2016 Response to Comments at 262-63.

[104] In re GE, 17 E.A.D. at 575-76, *supra* n.2.

or sudden groundswell of community support that would justify the Region's decision to embrace onsite disposal.[105]

The fact that representatives from municipalities that are receiving $63 million under the Settlement agreed to sign onto it does not change the fact that the overwhelming public sentiment is one of horror at the prospect of a PCB landfill being placed near the River. To the extent that the Region is now taking the position that it may disregard community sentiment or that such opinion is unimportant, such a position flies in the face of the Region's prior finding on this issue. It also is contrary to the Decree.[106] To the extent that the Region continues to consider community support in its analysis of offsite versus onsite disposal, it has wholly failed to explain how this factor could reasonably be viewed as coming out in favor of onsite disposal.

In sum, the Region has failed to demonstrate any change in circumstances that would support reaching wholly opposite conclusions regarding the propriety of onsite disposal at a location designated as an ACEC, on a site that is a "textbook" example of where not to place a landfill, which presents the risk of re-contaminating the River, which the community vehemently opposes, and which is based on secret, unrecorded settlement negotiations. For all of these reasons, the Region's decision is arbitrary, capricious, an abuse of discretion, and not in accordance with law.

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[105] 2020 Response to Comments at 43.

[106] See **Attachment 4,** 2017 EPA Br. at 24 ("[t]he Decree envisions active public and state participation in the remedy selection process").

II. The Region's Failure to Incorporate Thermal Desorption or Bioremediation Technologies into the Rest of the River Remedy is Arbitrary, Capricious and Contrary to Law.

The 2020 Permit violates CERCLA's preference for treatment that "permanently and significantly reduces the toxicity, mobility, or volume" of contaminants, and its mandate that the agency "shall" select a remedial action that utilizes alternative treatment technologies to the "maximum extent practicable." 42 U.S.C. § 9621(b)(1). As the First Circuit Court of Appeals has recognized, where an EPA action violates an interrelated statute or regulation, without a reasoned explanation for the divergence, the decision is arbitrary, capricious, and hence invalid. Natural Resources Defense Council, Inc. v. EPA, 824 F.2d 1258, 1281-82 (1st Cir. 1987).

The failure to consider reasonable alternatives to a proposed action is also "antithetical to reasoned decision making" and established principles of administrative law. International Ladies' Garment Union v. Donovan, 722 F.2d 795, 815 (D.C. Cir. 1983). Indeed, the failure of an agency to consider obvious alternatives has led uniformly to reversal. See, e.g., California v. Bernhardt, 472 F. Supp. 3d 573, 621 (N.D. Cal. 2020) (remanding for failure to consider all health impacts under NEPA); National Black Media Coalition v. FCC, 775 F.2d 342, 357 (D.C. Cir. 1985) (FCC's failure to consider options other than full seven-year license renewal was flaw in agency decision making); Public Citizen v. Steed, 733 F.2d 93, 103-05 (D.C. Cir. 1984) (NHTSA suspension of tire-grading regulation was arbitrary and capricious because agency failed to pursue available alternatives); Office of Communication of United Church of Christ v. FCC, 707 F.2d 1413, 1440 (D.C. Cir. 1983) (FCC's failure to give sufficient consideration to modification, rather than elimination of programming log requirements was arbitrary and capricious); Action on Smoking & Health v. CAB, 699 F.2d 1209, 1217 (D.C. Cir.

1983), *opinion supplemented by* 713 F.2d 795 (D.C. Cir. 1983) (CAB failure to consider alternatives to rescission of certain restrictions on smoking in airplanes mandates remand).

HRI and HEAL have been urging the Region to incorporate thermal desorption and other bioremediation techniques into the remedy for the River since *before* the 2000 Consent Decree was entered.[107] Indeed, HRI withdrew its motion to intervene to oppose the Decree based upon a commitment by then-Regional Administrator Mindy Luber "to identify and potentially test new and innovative treatment technologies" in the River.[108] Despite this, and despite Petitioners' efforts **for more than 20 years** to get the Region to test thermal desorption or other bioremediation techniques in the River, the Region has **never** done so and has **never** required GE to test these techniques on River sediments. Petitioners repeatedly invited the Region to meet with entities in and near Berkshire County that were in a position to deploy thermal desorption equipment or bioremediation equipment on sediments from the River, but the Region rebuffed these invitations.[109] In all these years, the Region has required GE to do exactly one pilot study of an alternative technology on the site, and it was of a *chemical* extraction technology.[110]

In its 2020 Response to Comments, the Region sets out a long list of documents in which it supposedly "considered" and "evaluated" alternative technologies.[111] However, the fact that,

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[107] HEAL Mem. of Law in Opposition to Decree, No. 99-CV-30225-MAP (and consolidated cases) (Oct. 2, 2000), https://semspub.epa.gov/work/01/9247.pdf.

[108] **Attachment 1**, Petitioners' Public Comments at 8.

[109] A complete history of Petitioners' efforts to persuade the Region to incorporate thermal desorption and bioremediation technologies into the remedy is laid out in Petitioners' comments submitted on the 2020 Remedy Selection. Id. at 7-10.

[110] 2020 Response to Comments at 26.

[111] Id. at 23.

over the course of more than 20 years, the Region never conducted, or required GE to conduct, even a single test of thermal desorption technology or bioremediation technology on sediments from the River reveals the truth.[112] Further evidence of the Region's true failure to consider bioremediation technologies is contained in the Statement of Chris Young.[113] Young conducted a successful bench test of bioremediation on PCB sediments from the Housatonic, then developed a quality assurance plan for a pilot study on additional sediments from the River. The Region first lost his quality assurance plan, and then totally ignored it. Despite giving lip service to having considered alternative technologies for the River, the Region has never actually considered thermal desorption or bioremediation. The Region did not develop or compare any remedial action alternatives featuring treatment technologies. That is, by definition, arbitrary, capricious and an abuse of discretion. See Yakima Valley Cablevision, Inc. v. FCC, 794 F.2d 737, 745 n.32 (D.C. Cir. 1986).

When Petitioners raised the Region's failure to consider thermal desorption and other bioremediation techniques in the prior 2016 appeal to the EAB, the Region responded by urging the EAB to reject this challenge on the procedural ground that it was not raised "during the 2014 comment period," and, astonishingly, argued that "[r]aising an issue **prior to** the public comment period does not suffice."[114] Perhaps not recognizing the extent to which this challenge has been diligently and repeatedly pursued by Petitioners since the 1990's, the EAB ruled that Petitioners' appeal based on the failure to incorporate thermal desorption and other bioremediation techniques into the remedy came too late.[115]

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[112] See **Attachment 1**, Petitioners' Public Comments at 9.

[113] **Attachment 9**, Statement of Chris Young.

[114] In re GE, 17 E.A.D. at 579, 583, *supra* n.2 (emphasis added).

[115] Id.

However, when the EAB remanded the issue of off-site disposal to the Region, it returned to the Region the question of where and how the PCB-contaminated sediments that will be removed from the River should be handled, and therefore also the question of whether some of those sediments should be treated through thermal desorption or other bioremediation techniques. Yet, on remand, the Region again did not consider whether to include thermal desorption or bioremediation as part of the Rest of River remedy. In its 2020 Response to Comments, the Region argues that it was not required to do so because the question of whether thermal desorption or bioremediation should be utilized is "not within the scope of the current public comment period," and it "is not required to respond to [] comments" on that subject.[116] However, if the Region had the prerogative on remand to devise a new plan for removal and disposal of PCBs, in so doing the Region was also required by CERCLA and the NCP to consider and give preference to treatment technologies, such as thermal desorption or bioremediation.

Indeed, in its 2020 Response to Comments, the Region explicitly acknowledges that, in making the decision to dispose of PCBs on-site, it never considered whether some of the PCB wastes to be landfilled there could instead be treated through bioremediation.[117] Also, in its Response to Comments, the Region lists a series of steps it claims to have taken to evaluate the use of bioremediation techniques.[118] Notably, none of these steps was taken in the period between the EAB remand in 2018 and the issuance of the 2020 Permit. In other words, when the Region went back to the drawing board, it never considered the alternatives of thermal

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[116] 2020 Response to Comments at 23.

[117] Id. at 25.

[118] Id. at 26.

desorption or bioremediation. As noted above, this failure to consider reasonable alternatives is, by definition, arbitrary, capricious and an abuse of discretion. International Ladies' Garment Union v. Donovan, 722 F.2d 795, 815 (D.C. Cir. 1983).

Taken together with the comments of Regional Administrator Luber in 2000, the Region's 2020 Response to Comments actually lays out precisely what the Region should have done starting 20 years ago to consider thermal desorption and bioremediation. The Response says:

> EPA committed in the [Settlement] to facilitate opportunities for research and testing of innovative treatment and other technologies and approaches for reducing PCB toxicity and/or concentrations in excavated soil and/or sediment before, during, or after disposal in a landfill. EPA **will begin** discussions with stakeholders to design and issue a "Challenge" competition, see www.challenge.gov for examples, to identify innovative technology strategies and solutions that may have applicability to this Site. EPA's planned "Challenge" for PCB remediation solutions will likely be conducted in stages, with the first stage being a competition to identify potential technologies that meet the requirements. After evaluating potential solutions, the winning solutions will move on to the next stage, site-specific testing. Such testing could take place at or near the UDF location, or other appropriate location. Testing requirements will include treatment applicability to the specific soil/sediment from the River and evaluating implementability, cost-effectiveness, operational challenges, treatment residuals management, and/or other factors (emphasis added).[119]

These are steps that should be taken before remedy selection. Considering that the Region has been planning the Rest of River cleanup for over 20 years, the statement that it is only beginning in 2021 to talk to stakeholders "to identify innovative technology strategies and solutions that may have applicability to this Site" is tantamount to an admission that it has never actually considered such technologies for the River.

The fact that the Region has now committed to do what it should have done 20 years ago does not fulfill CERCLA's mandate to select a remedy that utilizes alternative treatment

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[119] Id. at 30.

technologies to the maximum extent practicable. Nor does this after-the-fact commitment fulfill the Region's obligation to exercise considered judgment in issuing RCRA permits. The Region's decision is thus arbitrary and capricious.

The Region's current permit decision is also "contrary to law." 5 U.S.C. § 706(2)(A). Section 9621 of CERCLA, which applies to the Site, requires the use of alternative treatment technologies to the "maximum extent practicable." The Region argues that there is an exception to the treatment requirement for complex sites with very large quantities of contaminated sediment or sludge.[120] The Region also notes that the agency has not selected treatment technologies at large sediment sites for over a decade.[121] These are false constraints. There is absolutely no question that thermal desorption can be and has been used on large sites to destroy, rather than to landfill, PCBs. It has been proven effective to accomplish mass reduction on multiple large sites.[122]

Moreover, the use of innovative treatment technologies is not an all or nothing proposition. If thermal desorption or bioremediation cannot effectively treat all of the contaminated sediments that the Region proposes to dump in the on-site UDF, it could be used to treat *some* of them, with the balance going off-site. This approach would be far more consistent with CERCLA's requirement that treatment technologies be used to the "maximum extent practicable" than a remedy that does not use treatment technologies at all.

If the 2020 Permit goes forward, GE would be building a new landfill next to a state park, over the objections of residents, and constructing a massive hydraulic pumping system to pump

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[120] Id. at 23.

[121] Id.

[122] **Attachment 10,** Letter from James Galligan of TerraTherm; Attachment **18**, Comments of Mickey Friedman.

PCBs out of the River into that landfill. These actions can still be avoided if the EAB orders the Region to do now what it should have done in the first place – consider alternative technologies before making a decision and select a remedy that utilizes treatment technologies to the maximum extent practicable.

III. The Extent of the Cleanup is Not Protective of Human Health and the Environment.

The 2020 Permit does not fulfill CERCLA's promise that remedial actions shall attain a degree of cleanup and control which assures protection of human health and the environment.[123] The "remedy" selected by the Region would remove a small fraction of the PCBs from the River without placing any standard upon most of the Site for a level of protection of human health and the environment.

This approach represents a successful effort by GE to avoid responsibility for its actions through years of manipulating regulators and public opinion. In the Decree, GE promised to design and implement a cleanup plan for the Rest of the River that would be subject to performance standards. Meanwhile the company was spending millions of dollars campaigning to convince the public and regulators that PCBs are safe, that dredging is harmful, and that rivers clean themselves.[124] GE's public strategy -- to "alter perception of PCBs and dredging" and to "change regulatory treatment of PCBs" – is memorialized in a 1991 confidential company report dealing with the Hudson River, another river that GE polluted heavily with PCBs.[125] Mirroring the 2020 Permit, the 1991 document outlined a messaging strategy focused on letting "natural processes" do the cleanup. GE said: "Natural processes in the upper [Hudson] River are dechlorinating PCBs to less toxic forms and breaking down PCB materials completely"; "Dredging will not reduce PCB levels in the River faster than natural processes"; and

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[123] 41 U.S.C. §9621(d)(1).

[124] See B. J. Lyons, "Dredging up the truth," Times Union (Mar. 9, 2014), https://www.timesunion.com/local/article/Dredging-up-the-truth-5294643.php; J. Dao, "No Apologies as Solomon Takes Eagerly to Lobbying for GE," New York Times (June 1, 1999), https://www.nytimes.com/1999/06/01/nyregion/no-apologies-as-solomon-takes-eagerly-to-lobbying-for-ge.html?; E. Kolbert, "The River," The New Yorker (Nov. 27, 2000), https://www.newyorker.com/magazine/2000/12/04/the-river-4.

[125] **Attachment 11**, Confidential Hudson River Strategy Report at 11 (Jan. 17, 1991).

"Biodegredation, natural or accelerated, is more environmentally compatible and effective than dredging."[126] This was not what independent scientists were saying.[127]

Just as GE envisioned, the current remedial action plan, as embodied in the 2020 Permit, leaves large volumes of PCBs in the River and emphasizes what is referred to euphemistically as "monitored natural recovery" or "MNR." The estimated mass of PCBs to be removed is only 50,500 pounds.[128] The Region's current estimates are that there are up to 600,000 pounds of PCBs in the River and floodplains. For most of the Site, the 2020 Permit does not require GE to perform active remediation and states only that the areas will be subject to MNR. Those Permit provisions are not in accordance with CERCLA, the NCP, the Decree, or the Region's own guidance documents for the use of monitored natural recovery in CERCLA remedial actions and RCRA corrective actions.

The monitored natural recovery provisions are not protective of the environment and human health for several reasons. First, the 2020 Permit fails to establish objectives or performance standards that are intended to be achieved by natural processes. Second, the Permit fails to establish a reasonable timeframe within which the objectives should be achieved. Third, the Permit fails to provide for a contingent solution if natural processes fail to achieve a level of protectiveness within such reasonable timeframe. Other than a requirement for passive monitoring, the Permit does not prescribe responsive actions of any kind for most of the Site. Passive monitoring does not guarantee a cleaner River and does not comport with CERLCA, the

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[126] Id. at 9.

[127] E.g., Lyons, *supra* n.124, quoting Dr. David O. Carpenter ("Natural processes in the river were not creating less toxic forms of PCBs, but rather more water soluble and volatile forms that are more toxic for at least some health outcomes.")

[128] Public Presentation at 40, *supra* n.37.

NCP, the Decree, or the Region's technical guidance protocols for MNR. This failure to include actual performance criteria for many reaches of the River is arbitrary, capricious, and not in accordance with law. As a result, the 2020 Permit shifts the long-term risks associated with the remaining PCBs away from the responsible party, GE, to be born fully by innocent communities. Massachusetts and Connecticut citizens would remain vulnerable to adverse health effects, but because of the Decree, they are barred from exercising the private cleanup and cost-recovery rights normally afforded by CERCLA. When new exposure scenarios inevitably emerge, GE will have no obligation to act.

For these reasons, and as detailed below, the 2020 Permit is not protective of human health and the environment and is arbitrary, capricious, and contrary to law. The 2018 Decision should be remanded, and the Region should be required to establish binding performance standards that are protective of human health and the environment for all areas of the River and floodplain where PCBs have migrated or may migrate in the future. If the performance standards cannot be achieved or maintained within a reasonable timeframe, the Region should require GE to remove more PCBs from the River or take such other action as required to achieve the performance standards.

A. The 2020 Permit Fails to Set Performance Standards for Most of the River.

The first problem with the monitored natural recovery provisions of the 2020 Permit is the lack of performance standards. CERCLA requires all remedial actions to attain "a level or standard of control" which at least attains applicable and relevant water quality standards under federal and state laws.[129] "Remedial action objectives" are thus a fundamental step in

[129] See 42 U.S.C. §9621(d).

developing and selecting a CERCLA remedial action. Under the NCP, the lead agency shall "[e]stablish remedial action objectives specifying contaminants and media of concern, potential exposure pathways, and remediation goals."[130] "Remediation goals shall establish acceptable exposure levels . . . when screening potential remedial action alternatives" after considering various health and water quality standards.[131]

In keeping with these regulations, the Decree requires there to be performance standards for the Rest of River remedial action.[132] The term "performance standards" includes cleanup standards, design standards and other measures or requirements from the Decree or other plans or statements of work to be performed.[133] The Decree provides: "[GE] shall . . . achieve and maintain the Performance Standards as described in . . . the Rest of the River SOW (to be developed pursuant to this Consent Decree)."[134] "For the Housatonic River - Rest of the River Remedial Action, **Performance Standards will be developed** . . . and will be set forth in the final modification to the Reissued RCRA Permit and the Rest of River SOW . . . ."[135] Further, "[GE] **shall perform** the Rest of River Remedial Action and achieve such Performance Standards . . . ."[136]

Before entry of the Decree, the Region argued that performance standards would ensure an effective cleanup:

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130 40 C.F.R. §300.430(e)(2) (paragraph break omitted).

131 Id.

132 See e.g. Decree ¶ 22.x, ¶ 23 (SEMS-9420) (Oct. 27, 2000), https://semspub.epa.gov/work/01/9420.pdf.

133 U.S. Mem. in Support of Decree at 46 n.35, citing Decree at ¶ 4.

134 Decree ¶ 23.

135 Decree ¶ 33 (emphasis added).

136 Id. (emphasis added).

> The Decree includes several safeguards to ensure that the covenants not to sue do not impede safe, complete response actions. One prerequisite to EPA certifying completion of any of the cleanups under the Decree is that GE must have achieved the Performance Standards for such response action. . . . Therefore, prior to EPA certifying that a response action has been completed, GE must have achieved the relevant cleanup standards or measures set by EPA.. . . Thus, achievement of Performance Standards is an effective barrier to an unwarranted covenant not to sue."[137]

Performance criteria are necessary even when monitored natural recovery is part of a selected remedy. Under the agency's technical guidance documents for MNR, a central requirement is that there be "clearly defined performance criteria based on site-specific remedial action objectives."[138] "[A]ll monitoring programs should be designed to . . . [v]erify attainment of remediation objectives."[139]

The 2020 Permit does not contain performance criteria whatsoever for vast areas of the River. Only the first 30 river miles of the Site will be subject to active remediation and performance standards.[140] For Reaches 9-16 and the flowing sub-reaches of Reach 7, the Permit contains a section where a performance standard was supposed to have been inserted. This section merely states, "[MNR] shall be implemented in these reaches."[141]

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[137] U.S. Mem. in Support of Decree at 46-47, *supra* n.4 (citations omitted).

[138] **Attachment 12**, EPA Office of Solid Waste and Emergency Response ("OSWER") Directive 9200.4-17P, "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites" at 3 (1999); reaffirmed by **Attachment 13**, OSWER Directive 9283.1-36, "Use of Monitored Natural Attenuation for Inorganic Contaminants in Groundwater at Superfund Sites" at 10 (2015).

[139] OWSER Directive 9283.1-36 at 15. Also id. at 16 ("Performance monitoring should continue until remediation objectives have been achieved, and longer if necessary to verify that the site no longer poses a threat to human health or the environment").

[140] GE, Rest of River Statement of Work at 19 (June 9, 2020), https://semspub.epa.gov/work/01/647032.pdf.

[141] 2020 Permit, §II.B.2.h.

The Region also has not developed a roadmap for how monitored natural recovery is expected to clean this Site. Normally, there would be an understanding of what natural attenuation processes would occur and how those processes would affect the contaminants at a specific site *before* adopting an MNR strategy. The agency's guidance documents provide, "As with other remediation methods, selection of MNA as a remediation method should be supported by detailed site-specific information that demonstrates the efficacy of this remediation approach."[142] That means: "Site characterizations for natural attenuation generally warrant a quantitative understanding of source mass; groundwater flow (including preferential pathways); contaminant phase distribution and partitioning between soil, groundwater, and soil gas; rates of biological and non-biological transformation; and an understanding of how all of these factors are likely to vary with time."[143] "This information is generally necessary since contaminant behavior is governed by dynamic processes which must be well understood before MNA can be appropriately applied at a site."[144] Examples of *in-situ* processes include biodegradation; dispersion; dilution; sorption; volatilization; radioactive decay; and chemical or biological stabilization, transformation, or destruction of contaminants.[145] The agency prefers processes that degrade or destroy contaminants and expects that MNR will only be appropriate for sites with low potential for contaminant migration.[146]

Despite these well-established principles, the 2020 Permit and Statement of Work lack information about which natural processes are expected to affect PCBs at the Site and whether

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[142] OSWER Directive 9200.4-17P at 2.

[143] Id. at 13.

[144] Id.

[145] Id. at 3.

[146] Id. at 7.

those processes will have adverse consequences. One disaster scenario would be for natural attenuation of PCBs to occur through volatilization, which would endanger (and may already be endangering) local residents who are forced to inhale PCBs.[147] In 2009, the Region acknowledged that the PCB contamination has "spread downstream from Pittsfield into Connecticut, a distance of approximately 140 miles."[148] This fact weighs against a monitored natural recovery approach for this Site.

In short, the Region has not set goals for the level of cleanliness and protection that are intended to be achieved through natural processes, or explained how such goals would be achieved. Despite using the term "performance standards" in the 2020 Permit, no actual performance standards have been established for approximately 100 miles of the River. Performance standards should have been developed for the entire Site to safeguard against an unfair covenant not to sue and to ensure a safe and complete cleanup action, as promised. Without them, the Region's remedy selection is arbitrary, capricious, and contrary to law. The case should be remanded for the inclusion of performance criteria for the remainder of the Site.

B. The 2020 Permit Fails to Establish a Reasonable Timeframe within which Performance Criteria Shall Be Achieved.

The second problem with the monitored natural recovery provisions of the 2020 Permit is that the Region has not established a timeframe within which monitored natural recovery is expected to be effective. Under the NCP, remedial action alternatives must undergo an initial screening based on evaluating the effectiveness, implementability, and cost – effectiveness being

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147 **Attachment 14**, David O. Carpenter, "Exposure to and health effects of volatile PCBs," Rev Environ Health 2015.

148 **Attachment 7**, Community Update at 4.

primary.[149] The effectiveness screening criterion focuses on the degree to which risks are reduced by the alternative and "how quickly it achieves protection."[150] After the screening stage, the agency must then perform a more detailed analysis and must apply *each* of "nine evaluation criteria" for assessing remedial action alternatives.[151] Both long-term and short-term effectiveness are strongly emphasized: "Alternatives shall be assessed to determine whether they can adequately protect human health and the environment, in both the short- and long-term, from unacceptable risks . . . by eliminating, reducing, or controlling exposures to levels established during development of remediation goals consistent . . . ."[152] "Alternatives shall be assessed for the long-term effectiveness and performance they afford."[153] And "[t]he short-term impacts of alternatives shall be assessed considering . . . (4) Time until protection is achieved."[154]

EPA's technical guidance documents also make clear that MNR may only be selected when the naturally occurring processes (biodegradation, dispersion, sorption, volatilization) are "shown to be capable of attaining site-specific remediation objectives in a time period that is reasonable compared to other alternatives."[155] This basic tenet has been consistently reaffirmed in the agency's guidance documents and technical protocols for more than two decades and as

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[149] 40 C.F.R. §300.430(e)(7).

[150] 40 C.F.R. §300.430(e)(7)(i).

[151] 40 C.F.R. §300.430(e)(9).

[152] 40 C.F.R. §300.430(e)(9)(iii)(A).

[153] 40 C.F.R. §300.430(e)(9)(iii)(C).

[154] 40 C.F.R. §300.430(e)(9)(iii)(E).

[155] **Attachment 15**, U.S. EPA Office of Research and Development, "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, No. EPA/600/R-98/128 at 1 (Sept. 1998), citing OSWER Directive No. 9200.4-17 (1997); id. at 16 ("Monitored natural attenuation is appropriate . . . only when it can be demonstrated capable of achieving a site's remedial objectives within a time frame that is reasonable compared to that offered by other methods . . . .")

recently as 2020.[156] Those documents provide that the timeframe for MNR is determined "through a comparison of estimates of remediation timeframe for all appropriate remedy alternatives."[157] The evaluation of MNR as a viable alternative involves collection of site-specific data sufficient to estimate with an acceptable level of confidence both the rate of attenuation processes and the anticipated time required to achieve remediation objectives.[158]

Here, the Region failed to perform an analysis of the timeframe by which monitored natural recovery is expected to be effective prior to selecting it as a remedy. It is not even clear from the 2020 Permit and Statement of Work what natural attenuation processes the Region expects to occur at this Site. It appears that the Region doe not have a detailed understanding of the contaminant boundaries or rates of attenuation that may be occurring naturally, in part because of a lack of sampling.[159]

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[156] See Superfund Remedy Report, 16th Ed. At A-13 (July 2020) (SEMS-100002509) available at https://semspub.epa.gov/work/HQ/100002509.pdf ("MNA is 'the reliance on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a timeframe that is reasonable compared to that offered by other more active methods.'"); id. at 3 n.5 (referencing 1999 OSWER directive); OSWER Directive 9283.1-36 at ES-1 (2015) ("MNA . . . may be appropriate when it can achieve a site's remedial action objectives in a reasonable timeframe; thus, MNA remedies should not extend over very long timeframes, and the anticipated timeframes should be reasonable compared with other potential alternatives being considered.").

[157] OSWER Directive 9283.1-36 at 19 (2015), citing 1999 MNA guidance.

[158] OSWER Directive 9283.1-36 at 4 (2015).

[159] In Connecticut, PCB sampling has been limited and scattershot. A compilation of Connecticut PCB sediment data was finally done in 2015, revealing just how little is known about the PCBs in Reaches 10-16. Since entry of the Decree, only 60 individual samples were taken in Connecticut (fewer than one per mile). During several major floods and ice jams that occurred in Connecticut, PCB migration was not tested. The limited available data confirms that PCBs have been found throughout the Connecticut reaches and at concentrations exceeding Connecticut water quality standards for human health. See **Attachment 16**, Sediment PCB Data Summary for Connecticut.

The studies that have been performed do *not* support a monitored natural recovery approach. After conducting a Human Health Risk Assessment and an Ecological Risk Assessment for the Site, the Region reported: "The PCBs found at this site are persistent in the environment and resistant to biodegradation; as a result, the concentrations of PCBs in river sediment, floodplain soil, and fish show little decrease over time."[160] The Region said, "Fish, other aquatic animals, and wildlife in the river and floodplain contain concentrations of PCBs that are among the highest ever measured."[161] The Region also said, "Natural recovery from this contamination in the absence of cleanup in the river and floodplain is a very slow process that will take decades if not hundreds of years before PCB concentrations in fish decrease to a level that will permit unlimited consumption."[162]

Despite these indications that natural recovery will not be effective within a reasonable timeframe, the Region did not perform a comparative analysis based on estimates of the timeframe expected to achieve a defined level of protection. In analyzing the long-term and short-term effectiveness of the remedy, the Region focused on the volume of PCBs to be removed but did not determine how long monitored natural recovery will be expected to achieve results for the substantial volumes that will remain.[163] With respect to the long-term effectiveness of the remedy, the Region stated that removal of more sediment under the 2020 Permit, compared to the prior iteration, "increases the permanence" of the remedy.[164] Since

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160 **Attachment 7**, Community Update at 4.

161 Id.

162 Id.

163 See EPA Determination on Remand at 13 (July 2020), https://semspub.epa.gov/work/01/647210.pdf (not considering estimates for MNR timeframe).

164 Id.

permanence is a binary concept, the Region must have meant that removing more PCBs might prolong the time it takes before those PCBs are re-released or humans are exposed to them. This position is not based on a formal risk assessment comparing the 2016 and 2020 remedies and appears to be entirely speculative. The Region also stated in a conclusory fashion that the 2020 alternative is not expected to have long-term adverse impacts on human health.[165] This point also is not supported by a scientific analysis. With respect to the short-term effectiveness, the Region stated only that the project is estimated to last 13 years – i.e., the active remediation component of the remedy.[166] None of these arguments answers the pertinent question: how long will it take for monitored natural recovery to achieve results? There is no discussion of a reasonable timeframe within which natural processes are expected to clean the Rest of the River.[167] There is no comparative estimate for monitored natural recovery versus other alternatives.[168] Nor was that analysis done with the prior permit iteration.[169]

The 2020 Permit does not set a timeframe within which to achieve any form of protectiveness through MNR. For Reaches 9-16 and the flowing subreaches of Reach 7, the Permit describes the "Corrective Measure" as follows: "To achieve and maintain this Performance Standard, Permittee shall conduct monitoring of PCB concentrations in affected media (including surface water, sediment, and biota) in these reaches to see if recovery is occurring at the expected rate, maintain institutional controls, and perform all other related

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165 Id.

166 Id.

167 See id.

168 See id.

169 See 2014 EPA Statement of Basis at 35-37 (SEMS-558621) (June 2014), https://semspub.epa.gov/work/01/558621.pdf (comparative analysis of remedial action alternatives).

activities."[170] Yet the Permit does not specify what the expected rate of recovery is – an absurd oversight. Without any reasonable timeframe for recovery, the Permit provision for monitored natural recovery is merely a requirement to conduct monitoring. There is no expectation that any level of recovery will ever be achieved, much less that the timeframe will be reasonable compared to the timeframe required for GE to remove all the PCBs from the River.

Thus, the Region's remedy selection and the 2020 Permit are arbitrary, capricious, and contrary to law. The case should be remanded for an evaluation of whether MNR can achieve results that are protective of human health and the environment within a reasonable timeframe, and if so, to include the target timeframe as an express permit provision.

C. The 2020 Permit Fails to Provide for a Contingent Response if Monitored Natural Recovery is Ineffective.

The third problem with the monitored natural recovery provisions of the 2020 Permit is that they do not provide for a contingent response. The Region assumes that human health and the environment will be adequately protected by the current proposal, but if MNR is not protective, there is no mechanism to compel further action from GE. Without any mechanism for enforcing performance criteria, the 2020 Permit fails to accomplish the purpose of the remedy selection process -- "to implement remedies that eliminate, reduce, or control risks to human health and the environment."[171]

In assessing remedial action alternatives, CERCLA requires the Region to take into account, *inter alia*, "the persistence, toxicity, mobility and propensity to bioaccumulate" of the

[170] 2020 Permit, §II.B.2.h.2.

[171] 40 C.F.R. § 300.430(a)(1).

contaminants, "long-term maintenance costs," and "the potential for future remedial action costs if the alternative were to fail."[172] EPA's technical protocols for MNR are intended to enable decisions concerning the deployment of contingent solutions when monitoring shows that natural processes are not adequately eliminating, reducing, or controlling risks. [173] Under the protocols, monitoring is not a stand-alone goal; data is collected to support decision making about further response actions that may be needed.[174] Decisions about the adequacy of the monitoring program may result in "continuation of the program, program modification, or implementation of a contingency or alternative remedy."[175] Situations that may trigger a contingent remedy include, for example, "[i]ncreasing contaminant concentrations or trends not predicted during remedy selection or indicative of new releases" and "[c]ontaminants not decreasing at a rate sufficient to meet remediation objectives."[176]

The 2020 Permit does little more than invoke the term "monitored natural recovery." It only requires GE to conduct baseline monitoring and submit reports, ending with a Final Remedial Action Completion Report.[177] As defined in the Permit, MNR is limited to monitoring contamination and/or natural processes to see if recovery is occurring at an expected rate (which has not been specified) and the maintenance of institutional controls until the necessary

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[172] 42 U.S.C §9621(b)(1)(A, E, F).

[173] See, e.g., **Attachment 17**, OSWER 9355.4-25, "Performance Monitoring of MNA Remedies for VOCs in Ground Water" at x-xi (Sept. 2003).

[174] See id.

[175] Id. at x.

[176] Id. at xi.

[177] 2020 Permit, §H.12, §H.24.

reductions in risk (which have not been specified) have occurred.[178] There is no provision for triggering a contingent response if monitored natural recovery is not working. Failure to include such a trigger constitutes a departure from the agency's guidelines and a failure to meaningfully consider or account for future response costs if the remedy were to fail. Since there are no actual performance standards for the reaches subject to MNR in the Permit, GE would be entitled to a Certification of Completion after conducting monitoring, regardless of what the monitoring shows.[179] The concentrations, locations, and chemical properties of the PCBs in Reaches 9-16 and the flowing subreaches of Reach 7 would be irrelevant to whether GE is released of all liability for the Site. The remedial actions embodied in the 2020 Permit thus fail to eliminate, reduce, or control risks to human health and the environment.

GE will likely argue that it should not be responsible for future releases indefinitely or in perpetuity, while also insisting that the current remedy would be protective of human health and the environment. But if GE truly believed that the current remedy would pose little to no long-term health or ecological risks, then the company would have no problem committing to a contingent response. The risks are very real for the communities who live, fish, and play in and around the River. For example, public health could be endangered by volatilization of PCBs[180] or by disturbance of contaminated sediment during climate-related disasters as has occurred in other communities[181] where PCBs were left in the environment. Massachusetts and Connecticut

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[178] See 2020 Permit, Definitions ¶ 21 (defining monitored natural recovery as used in the Permit).

[179] See Decree, ¶¶ 88-89.

[180] See **Attachment 14**, Carpenter Study.

[181] See C. Flavelle, "'Toxic Stew' Stirred Up by Disasters Poses Long-Term Danger, New Findings Show," The New York Times (July 15, 2019), https://www.nytimes.com/2019/07/15/climate/flooding-chemicals-health-research.html

residents are also currently harmed by being unable to safely consume fish from the River for subsistence, and if monitoring alone does not clean up the PCBs, then they may never be able to do so again. By foreclosing a contingent response, the 2020 Permit has no guarantees for human health and the environment.

The Region will argue that the extent of the cleanup and monitored natural recovery were not within the scope of the EAB's 2018 remand. However, the Region reopened these issues when it modified the volume of sediment to be removed from the River in the 2020 Settlement Agreement. The Region has touted the removal of an additional 3,530 pounds of PCBs from the River[182] and described the 2020 Settlement as a "more comprehensive removal"[183] and a "more complete cleanup."[184] The Region said the 2020 Settlement will provide "benefits . . . [including] significant cleanup enhancements to the previously defined remedy."[185] The Region said the Settlement "requires GE to complete a number of improvements to the cleanup plan to remove additional contamination . . . ."[186] In fact, the Region has said that "more cleanup" was one of its objectives when negotiating with GE – that the Region wanted "more PCBs out of the River and properties [along the River]."[187] The Region said that the removal of more

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(reporting elevated PCB levels in soil and human beings in Guanica, Puerto Rico after Hurricane Maria).

[182] Public Presentation at 40-41, *supra* n.37.

[183] See Region 1 News Release, "What They Are Saying: EPA and Stakeholders' Agreement To Achieve Faster and More Complete Cleanup of Housatonic River in Berkshire County" (Feb. 10, 2020), https://semspub.epa.gov/work/01/643779.pdf.

[184] See Region 1 News Release, "Landmark Agreement Will Ensure Faster and More Complete Cleanup of Housatonic River in Berkshire County" (Feb. 10, 2020), available at https://semspub.epa.gov/work/01/643764.pdf.

[185] Id.

[186] Fact Sheet on Settlement at 3, *supra* n.53.

[187] Public Information Session Slides at 13, *supra* n.54.

contaminated sediment meant "reduced risk of release of residual PCBs back into the environment."[188] Yet, the increased amount of contaminant removal was not the product of a risk assessment to determine the correct amount of removal that would protect human health and the environment; it was determined arbitrarily through negotiations. In fact, the volume of PCBs removed from the River under the 2020 Settlement (50,500 pounds[189]) is still minor in comparison to the current levels of contamination (100,000 to 600,000 pounds[190]). By these estimates, GE may only be responsible for removing 8% of the total PCB mass.[191] Though the Region acknowledges that fewer PCBs in the River would lower risks, there is no quantitative analysis in the record showing the level of risk reduction expected to result from the removal of a meagre 3,530 more pounds of PCBs or justifying the continued reliance on an ineffectual MNR plan for most of the Site. By arbitrarily modifying the extent of the removal and conceding that removing more PCBs reduces risks in issuing a final determination, the Region has placed these issues squarely within the scope of the EAB's review.

Thus, the case should be remanded, and if on remand MNR is found capable of achieving specific results within a reasonable timeframe, the Region should be required to expressly

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[188] Id. at 14.

[189] Determination on Remand at Table 2, *supra* n.163.

[190] **Attachment 2**, Site Update.

[191] HRI interviewed GE's Former Manager of Tests, Ed Bates, whose job was to calculate loss rates from Pyrenol used at GE's manufacturing facility in Pittsfield. According to Bates, 4,000 to 5,000 pounds of PCBs were lost per week into the ground and River. Bates estimated that between 1981 and 1990, approximately 1.5 million pounds of PCBs made their way into the River. By that estimate, 50,500 pounds is only 3% of the total PCBs that GE wrongfully dumped into the watershed. See "Good Things to Life," Documentary by Mickey Friedman at 4:05-6:53, https://www.youtube.com/watch?v=ACN6CpMqt1w.

provide for a contingent remedy that will permanently protect the public if those results do not come to fruition on their own.

PRAYER FOR RELIEF

For the foregoing reasons, the 2020 Permit and remedy selection are arbitrary, capricious, and not in accordance with law. Petitioners respectfully request they be remanded and that the following relief be provided:

1. Given the balance of risks and costs and the lack of support for onsite disposal, the Region should be directed to select an offsite disposal option for all untreated PCB waste.
2. The Region should be directed to fully and fairly evaluate bioremediation and thermal desorption and to select a remedy which utilizes these proven technologies to the maximum extent practicable.
3. The Region should be directed to conduct a detailed analysis of whether MNR can achieve long-term protection within a reasonable timeframe. If the Region determines that MNR can achieve long-term protection within a reasonable timeframe, then performance standards, the reasonable timeframe, and provisions for a contingent response should be included in the permit. Otherwise, the Region should select a remedy that *will* be effective.

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

In accordance with 40 C.F.R. § 124.19(d)(1)(iv), undersigned counsel certifies that the foregoing Petition for Review contains 13,993 words, as counted by a word processing system, including headings, footnotes, quotations, and citations in the count, but not including the cover, Table of Contents, Table of Authorities, Table of Attachments, Statement of Compliance with Word Limitation, Request for Oral Argument, signatories, or Attachments, and, thus, this Petition meets the 14,000 word limitation contained in 40 C.F.R. § 124.19.

REQUEST FOR ORAL ARGUMENT

Petitioners respectfully request oral argument on this appeal. As the Board knows from the prior appeal, this is a case in which there is enormous public interest and concern and a case that will impact many communities in Western Massachusetts and Connecticut. Many members of the public, and the Petitioners specifically, feel that their voices have not been a meaningful part of the Region's decision-making process, which occurred most recently in closed door settlement negotiations. It is thus critically important to the Petitioners that they now be heard. The Petitioners have made extensive, persistent, and diligent efforts over the last two decades to participate in the Rest of River cleanup process. For these reasons, oral argument would serve the interests of a full and fair adjudication of the issues raised in this appeal.

Respectfully submitted,

PETITIONERS,
HOUSATONIC RIVER INITIATIVE, AND
HOUSATONIC ENVIRONMENTAL ACTION LEAGUE,

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Dated: March 5, 2021

CERTIFICATE OF SERVICE

I, Andrew Rainer, hereby certify that on this 5th day of March, 2021, I served the foregoing Petition for Review, with the Attachments, by electronic mail to:

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