Public Input on General Electric's November 21, 2023 Adaptive Management Plan

March 2024

SEMS Doc ID 679637

CITY OF PITTSFIELD

DEPARTMENT OF COMMUNITY DEVELOPMENT, CITY HALL, 70 ALLEN STREET, RM 205, PITTSFIELD, MA 01201

MEMORANDUM

To: Chris Smith, EPA Remedial Project Manager Housatonic Site
From: James McGrath, Park, Open Space, and Natural Resource Program Manager
Date: February 28, 2024
Subject: *Comments on GE-Pittsfield/Housatonic River Site Adaptive Management Plan*

The City of Pittsfield has reviewed the document referenced above and - working with Skeo under a Technical Assistance Services for Communities (TASC) arrangement with EPA - we offer brief comments that summarize the findings and recommendations of the technical reviewers.

The City appreciates the requirement to be open to adaptive management with regards to the Rest of River project. Adaptive management on a project of this scope and scale is critically important as it promotes a flexible decision-making process that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust policies or operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a 'trial and error' process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. Its true measure is in how well it helps meet environmental, social, and economic goals, increases scientific knowledge, and reduces tensions among stakeholders.

Section II.F of the Revised Final Permit requires that an adaptive management approach be incorporated into the design and implementation of the Remedial Action to adapt requirements based on new information and make changes as needed to achieve the expected benefits of the project. The adaptive management process will be implemented to adapt and optimize project activities to account for lessons learned from work conducted at early stages of the project, new information, changing conditions, evaluations of the use of new or innovative technologies (if any), results from any pilot studies, and additional opportunities that may present themselves over the duration of the project, including during periodic reviews. The document describes three types of adaptive response actions to be implemented:

- during field response actions (relatively minor field refinements)
- near-term (correction of obvious deficiencies or changed conditions)
- longer-term time frames (applied at some point after the condition is observed, for example in the following construction season or for a subsequent Remediation Unit).

One consideration is that the previous remedial action has been accomplished in the upper 1-½ miles of the River and, though this previous work is referred to briefly within the Adaptive Management Plan, it seems possible that a considerable number of learned lessons were acquired during this project. These learned lessons could be foundational to this ROR Adaptive Management Plan.

Additionally, the Adaptive Management Plan was to provide "a description of information and data that will be considered during adaptive management…" It is not clear within this Adaptive Management Plan what "information and data" will trigger adaptive management decisions. It seems appropriate to assign measurable parameters representative of remedial action success such as Total PCB concentrations in surface water downgradient of remedial action areas, verified decreased of Total PCB concentrations in remedial action areas, invasive species occurrence, and water quality measures that provide an indication of best management practice effectiveness (total dissolved solids, total suspended solids, dissolved oxygen, pH, clarity and color).

Adaptive management as defined here involves ongoing, real-time learning and knowledge creation, both in a substantive sense and in terms of the adaptive process itself. It requires stakeholder involvement and an adaptive approach that actively engages stakeholders in all phases of a project over its timeframe, facilitating mutual learning and reinforcing the commitment to learning-based management. The City of Pittsfield stands ready to engage with GE and EPA as opportunities arise for possible flexible and adaptive decision-making for better project results.

We appreciate the opportunity to provide comments on plans and studies associated with the Rest of River clean up and are grateful for the technical assistance provided by Skeo through EPA.

Sincerely,

James McGrath, CPRP
Park, Open Space, and Natural Resource Program Manager

Mark Pruhenski
Town Manager

E-mail: mpruhenski@townofgb.org
www.townofgb.org

Town Hall, 334 Main Street
Great Barrington, MA 01230

Telephone: (413) 528-1619 x2
Fax: (413) 528-2290

TOWN OF GREAT BARRINGTON
MASSACHUSETTS

OFFICE OF THE TOWN MANAGER

February 28, 2024

Comments emailed to: R1Housatonic@epa.gov

Re: GE-Pittsfield/Housatonic River Site: Adaptive Management Plan, November 2023

Dear EPA:

The Adaptive Management Plan is a good opportunity to use a living document or framework over the upcoming long course of the ROR remediation in order to ensure the remediation is effective, efficient, adaptive to lessons learned, new challenges, and changing conditions, and is also responsive to innovative methods and technologies. After review of the November 2023 Adaptive Management Plan for the Rest of River (ROR), I submit the following comments on behalf of the Town.

1. We encourage the continual reference to, and use of, lessons learned from previous remedial actions along the Housatonic River to inform the ROR remediation, and we ask that this Adaptive Management be amended to a summary of any lessons learned from those actions.
2. We ask that the Adaptive Management Plan include changing conditions such as local population and traffic data, as well as the impacts of climate change.
3. The impacts of climate change may also be a changing condition that should be in the Adaptive Management Plan.
4. The Adaptive Management Plan should include discussion of and a schedule to regularly review any applicable innovative technologies for conducting the remediation, including the removal, treatment and disposal of PCBs.
5. We ask that the Adaptive Management Plan define the information and data that will trigger future adaptive management decisions.

Thank you for the opportunity to comment on the proposed Adaptive Management Plan. And thank you for providing Technical Assistance Services for Communities (TASC) to the Rest of River municipalities.

Sincerely,

Mark Pruhenski
Town Manager

TOWN OF LEE
32 Main Street, Lee, MA 01238
www.lee.ma.us

R. Christopher Brittain,
Town Administrator

February 26, 2024

Mr. Dean Tagliaferro
EPA New England
10 Lyman Street, Suite 2
Pittsfield, MA 01201

Dear Mr. Tagliaferro,

The following is a list of comments from the Town of Lee regarding the Adaptive Management plan.

1. The overarching adaptive management approach to the ROR remedial action process is to be a part of Corrective Measures implementation "to adapt and optimize project activities to account for lessons learned, new information, changing conditions, evaluations of the use of innovative technologies, results from pilot studies, if any, and additional opportunities that may present themselves over the duration of the project, including during periodic reviews." *(pdf page 79 of the permit)* A previous remedial action has been accomplished in the upper 1-½ miles of the river. *(compiled records provided in EPA, 2024 with a Final Completion Report provided by Weston, 2011)* This previous work is referred to briefly within the Adaptive Management Plan, however it seems possible that a considerable number of learned lessons were acquired during this project. These learned lessons could be foundational to this ROR Adaptive Management Plan.

The Town would like to see the ability for the Adaptive Management Plan to be amended to summarize lessons learned from the upper 1-½ mile remedial action efforts.

2. A potential changing condition that the Adaptive Management Plan (and other documents such as the Transportation Plan and Quality of Life Compliance Plan) should address includes population changes in the area. The ROR remedial action process will take decades to accomplish.

The Town would like to know if the Adaptive Management Plan could be amended to include population changes.

3. Climate change can be considered a changing condition that may affect ROR remedial actions. An entire document was compiled to analyze and address possible climate change impacts to ROR remedial action efforts *(Sustainability and Climate Adaptation Plan, Anchor QEA LLC, 2022)*. At a minimum, the Adaptive Management Plan should summarize the conclusions drawn from the Sustainability and Climate Adaptation Plan in order to make the Adaptive Management Plan more transparent to the reviewing community.

The Town requests that the Adaptive Management Plan could include a summary of the climate change document.

4. As per the SOW *(Section 4.3.1.5, pdf page 52)*, the Adaptive Management Plan is to provide "a description of information and data that will be considered during adaptive management…" It is not clear within this Adaptive Management Plan what "information and data" will trigger adaptive management decisions. It seems appropriate to assign measurable parameters representative of remedial action success such as Total PCB concentrations in surface water downgradient of remedial action areas, verified decrease of Total PCB concentrations in remedial action areas, invasive species occurrence, and water quality measures that provide an indication of best management practice effectiveness (total dissolved solids, total suspended solids, dissolved oxygen, pH, clarity and color).

The Town requests that the Adaptive Management Plan define the information and data that will trigger future adaptive management decisions.

5. **The Town requests that EPA allow changes and amendments to the permit to include alternative and new remediation technologies as they become available.**

GENERAL REMARKS

The Town of Lee, through its Select Board, would like to continue to express its overall discontent with the cleanup project as a whole. The Town, through numerous elections and public meetings, has objected to almost every aspect of the cleanup including but not limited to the toxic waste dump proposed for the Town of Lee, the lack of any alternative technologies for the cleanup remedy and the potential impact on our infrastructure and human health.

The Town of Lee played no part in the contamination of the river and considers this an environmental injustice that the residents of Lee be subject to 13 years of disruption and risk to human health, followed by centuries of potential issues from a toxic waste dump in our Town.

Sincerely,

R. Christopher Brittain,
Town Administrator

cc:
His Excellency Joseph Biden, President of the United States
The Honorable Edward Markey, U.S. Senate
The Honorable Elizabeth Warren, U.S. Senate
The Honorable Richard Neal, U.S. House of Representatives
Her Excellency Maura Healey, Governor of Massachusetts
The Honorable Andrea Joy Campbell, Attorney General of Massachusetts
The Honorable Paul Mark, State Senator
The Honorable William "Smitty" Pignatelli, State Representative, 3rd Berkshire
Select Board, Town of Lee

Mass Audubon

March 1, 2024

Christopher Smith
EPA New England, Region I
Federal Facilities & Housatonic River Section
Superfund and Emergency Management Division
5 Post Office Square
Boston, MA 02109-3912

Via Email: R1Housatonic@epa.gov and smith.christopher@epa.gov

Re: **GE-Pittsfield/Housatonic River Site Rest of River (GECD850)**
Adaptive Management Plan

Dear Mr. Smith:

On behalf of Mass Audubon, I submit the following comments on GE's Adaptive Management Plan (November 2023). As noted in our previous comments on this project, Mass Audubon is a directly affected landowner at our Canoe Meadows Wildlife Sanctuary in Reach 5A of the Rest of River area. Also, as a statewide conservation organization, we have a broader interest in the conservation and restoration of the Housatonic River Valley ecosystem for the benefit of people and wildlife.

For a project as complex as the implementation of remedial activities for PCB contamination in the Housatonic River and its environs, expected to take more than a dozen years, an adaptive management approach is highly desirable. Over the course of remediation, challenges and difficulties will be encountered and best practice techniques for such work will evolve, offering learning opportunities. All stakeholders will benefit if these opportunities lead to refinements of the work, increasing project efficiency and effectiveness over time. GE's Adaptive Management Plan describes a conceptual framework for incorporating lessons learned through the experience of remediation, advancing technology, or other inputs to evolve toward the optimization of project activities. As presented, however, the Plan is limited by its qualitative approach, leaving uncertainties about how adaptive management would play out in practice during the project.

The Plan offers several guiding questions to help GE and EPA evaluate whether adaptive management measures are appropriate, and describes three types of adaptive response actions that may be implemented during the project:

- field response actions (relatively minor refinements regarding construction techniques, equipment, etc., potentially implemented by the contractor without EPA or GE oversight);
- near-term response actions (correction of obvious deficiencies or changed conditions as identified by GE or EPA); and

- longer-lead response actions (work plan revisions or similar applied after a triggering condition is observed, for example in the following construction season or for a subsequent Remediation Unit).

These guiding questions and response action types make sense conceptually, but experience in the natural resource realm demonstrates that it is easier to aspire to adaptive management than it is to implement it. An important hallmark of successful adaptive management programs is their reference to quantitative performance standards, and appropriate monitoring to determine when standards are not being met. In short, adaptive management should be more scientific: actions are tests of models, and results are measured against expectations. In this case, the project's Revised Final Permit provides several overarching measures (e.g., PCB loading in fish and duck tissue, or transport thresholds past specific monitoring sites) that define success. GE (or its contractors, as appropriate) should determine—in advance of construction—a range of defined performance standards, scaled to response action level, that could inform construction oversight and monitoring activities for certain parameters. Different suites of standards might apply depending on proposed activities in different Remediation Units or other areas affected by the project.

For simple examples, on the field response action level, real-time turbidity monitoring could be deployed downstream from in-channel work zones, to signal if turbidity values exceed a concerning threshold. Noise monitoring could be installed in neighborhoods to ensure that truck traffic through residential areas does not unduly affect the quality-of-life measure. It will take substantial effort to develop a reasonable suite of parameters and monitoring approaches, but this advance work would greatly reduce the potential for a trial-and-error approach to adaptive management. To some degree GE has begun this work in the previous reports including the Conceptual Remedial Design/Remedial Action Work Plan, Restoration Evaluation Report, Vernal Pool Pilot Study and Work Plan, and Sustainability and Climate Change Adaptation Plan, but a full adaptive management plan would pull relevant metrics together in one document. All stakeholders should recognize that the stakes in this remediation are high enough to merit this level of forethought, if not comprehensively across every conceivable project activity, then at least for the major components identified in Section 2.2 of this Plan.

Mass Audubon's recent comments on several of GE's plans/reports have included the recommendation for GE to create a public-facing project dashboard, including maps and data, to increase public awareness of project plans, goals, activities, and progress. The value of such a dashboard would be improved if it included quantitative performance standards for adaptive management, as described above, and the status of monitored parameters, for the project's duration. This information would greatly increase project transparency.

We also request that GE and/or EPA provide stakeholders (including Mass Audubon as an affected landowner) with an opportunity to review and comment on adaptive response actions that fall into the longer-lead response category.

Thank you for the opportunity to review this plan, and for your consideration of these comments.

Regards,

Stephen Hutchinson
Senior Regional Director
Mass Audubon
[redacted]

Citizens for PCB Removal Comments for the Adaptive Management Plan

GE-Pittsfield/Housatonic River Site Rest of River (GECD850)

*Excerpt from **1.3 Plan Objectives and Scope**:*

*The adaptive management process will be implemented to adapt and optimize project activities (i.e., design and construction) to account for lessons learned from work conducted at early stages of the project, new information, changing conditions, **evaluations of the use of new or innovative technologies (if any)**, results from any pilot studies, and additional opportunities that may present themselves over the duration of the project, including during periodic reviews.*

Citizens for PCB Removal (CPR) has been dismayed by the continuing statements that *new or innovative technologies* may not being considered as the Rest of River remedial actions continue. At the last two CCC meetings, EPA has presented what they term as an Alternative Technology Challenge. EPA wants watershed stakeholders to spend yet more of our precious, yet unpaid, time to search for and present alternative technologies and companies to this challenge. However, Anni Loughlin of EPA has stated in her updates for the Challenge, that any new technologies, if discovered WILL NOT be forced on GE to utilize it/them as could be applied to the Upland Disposal Facility (UDF) or elsewhere in Rest of River.

The Settlement Agreement – Housatonic River, Rest of River of 2020 states in section *IV. Other GE/EPA Agreements*, *Part B:*

"The EPA will 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. These opportunities may include: (1) reviewing recent and new research; (2) identifying opportunities to apply existing and potential future research resources to PCB treatment technologies, through EPA and/or other Federal research programs; and (3) encouraging solicitations for research opportunities for research institutions and/or small businesses to target relevant technologies. The research may focus on soil and sediment removed (or to be removed) from the Housatonic River or similar sites to ensure potential applicability to the permit/selected remedy. GE and EPA will continue to explore current and future technology developments and, where appropriate, will collaborate on on-site technology demonstration efforts and pilot studies, and, consistent with the adaptive management requirements in the Final Permit together, will consider the applicability of promising research at the Housatonic Rest of River site. reducing PCB Toxicity and/or concentrations in excavated soil or sediment before, during or after disposal in a landfill."

CPR notes that there is nothing that would restrict use of these technologies at the UDF.

Anni's presentation starts at 1:20:30 of the September 13, 2023 CCC meetings which can be viewed here: EPA & Housatonic River CCC Meeting, September 13, 2023 (youtube.com). Anni also stated that they are contracting with a company named *Wazuko* for outreach of the challenge. Why do they need to contract with a company based in London, England instead of the US?

Now EPA is calling it the PCB Toxicity Reduction Challenge as it was listed in the January 24, 2024 CCC meeting agenda. Yet if you go to the EPA Innovation website, there is STILL no such challenge listed there by either name. EPA Challenges & Prizes | US EPA

The challenge update was discussed at 34.10 of the CCC January 24, 2024 recording: GE Housatonic Site CCC Meeting | January 24, 2024 (youtube.com). Chris Smith stated that EPA has *"begun to reach out to local environmental groups, as well as the towns and the city of Pittsfield, to gauge their interest in being involved in the challenge process."* As a standing member of the CCC, I have not received any communication about this challenge and am not aware of other environmental groups being contacted. **This all feels to be delay tactics by EPA since they have had 3 years to establish this challenge.**

Additionally, CPR strongly objects to the recent changes to CCC meeting procedures that have existed since 1998 when it was formed by EPA. The new facilitator stated that the agenda for the meetings could not be altered, yet allowed Anni Loughlin to do so at this most recent CCC meeting on January 24, 2024. Anni added an item that was not listed on the night's agenda and just went ahead to discuss that item. It should not have been allowed at that time, but could have been discussed during open Q&A. The meeting procedures should be for ALL in attendance at the CCC meetings including EPA.

Excerpt from **2 Adaptive Management Process 2.1 General**

Based the adaptive management assessments, GE will, if warranted, modify the implementation of the remediation actions (with EPA approval) to minimize adverse impacts on those response actions, expedite response actions, improve the remediation, and/or promote achievement of, or continued progress towards achieving, the General Performance Standards specified in the Revised Final Permit.

CPR believes that under no conditions should there be unnecessary changes that could affect removing any less contamination from the Rest of River. The goal should always be to remove more without regard to cost to GE.