Public Input on General Electric's September 28, 2023 Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas

January 2024

Mass Audubon

December 18, 2023

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)**
Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas
Pre-Design Investigation Summary Report for Reach 5A Sediment and Riverbanks
Phase IB Cultural Resources Survey Work Plan for Reach 5A

Dear Mr. Smith:

On behalf of Mass Audubon, I submit the following comments on GE's recently-submitted pre-design investigation summary reports and cultural resources survey work plan for Reach 5A. 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. Additionally, 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 both people and wildlife.

Summary Comments

The submitted documents represent determined efforts to understand the distribution of PCBs and cultural resources across the study area, presenting the most publicly available detail on these site characteristics to date. Mass Audubon's Senior Conservation Ecologist for our Central/West Region, Tom Lautzenheiser, reviewed the documents and provided the following comments.

We recommend that the extensive data that is presented in tabular format be made available in a more accessible format such as ArcGIS. This would enable interested parties to understand the data geospatially and view the information more flexibly than in static tables and maps. We also request that additional cultural surveys be performed, specifically for archeological resources at Canoe Meadows. For floodplains, consideration should be given to lowering elevations in some locations rather than restoring pre-construction elevations in every floodplain location.

Pre-Design Investigation Summary Reports

Weighing in at over 9,000 pages, together these reports provide an overwhelming volume of information, largely tabular data and analytical results that boil down to a relatively small number of key tables and figures. While the reports describe data collection, validation, and evaluation methods, as presented these reports are impractical. Information contained in these reports should be shared in a more readily understandable manner, both through maps and statistics.

Regarding mapping, the included summary maps are helpful, yet they are only a starting point. Mass Audubon gratefully acknowledges that GE has separately provided maps and data tables specifically for Canoe Meadows. However, given the availability of various geographic information data viewers and related tools, GE should prepare a publicly accessible spatial information portal. Such a portal could allow citizens to understand and assess PCB test results from soils and sediments in areas of interest, communicating more effectively than static maps and thousands of pages of test results can accomplish. (Geotechnical and other datasets should also be shared in a similar manner.) Residents of Housatonic River valley communities deserve transparency and accessibility in all aspects of remediation planning, including data distribution.

Regarding statistics, the bulk of the information provided in the reports are raw data. Summary statistics for each Exposure Area (EA), including frequency of PCB detection; minimum, maximum, mean, and confidence intervals for each EA floodplain soil dataset, would be helpful for interpreting the distribution of PCBs in each area. Assumptions used in the Exposure Point Concentration (EPC) calculations should also be described. As appropriate, similar summary statistics should be calculated and shared for channel and bank sediment areas.

Overall, the sheer volume of data presented in these reports demonstrates a robust (and needed) effort to characterize the distribution of PCB contaminated soils and sediments within the study area. However, this volume also raises questions of quality control (are results accurate at the appropriate scale?) and data completeness (should additional sampling be conducted?), which are difficult to assess with the information provided. A more robust assessment of confidence in PCB modeling within sampling units is necessary.

Cultural Resources Survey Work Plan

The Phase 1B Cultural Resources Survey Work Plan for Reach 5A presents a reasonable approach to investigating cultural resources within areas of high potential archaeological sensitivity that may be affected by remediation activities. Still, archaeological resources are irreplaceable, and every precaution should be taken to ensure that remediation activities do not result in the loss of cultural artifacts or the opportunity to document them in place as encountered throughout the study area.

Figure 7 (pdf page 25) is of particular significance to Mass Audubon, as it depicts preliminary areas for archaeological survey at Canoe Meadows, including West Pond, a potential staging area south of West Pond, and isolated areas along the riverbank and near the confluence of Sackett Brook with the Housatonic River. Understanding that linework defining these target areas is preliminary, GE should expand cultural resource survey activities to include some degree of buffering around what appear to be precisely determined areas. Additionally, if the construction of access roads is needed to support remediation activities in any certain areas, these areas should also be subject to cultural resource surveys.

Canoe Meadows also includes a substantial area of potential effect (APE) to historic architectural resources (Figure 5, pdf page 19). An access road is depicted as extending through this area to reach a potential staging area south of West Pond. Noting that the potential staging area is occasionally subject to saturation or

inundation due to varying levels of beaver activity in the adjacent wetland complex, it may be worthwhile to conduct further archaeological survey in upland portions of this APE, north of West Pond.

Additional Comments on Floodplain Restoration

On further reflection regarding post-remediation floodplain restoration activities, Mass Audubon recognizes that elevation is likely to be the strongest variable that design decisions can control. While a capping and other sediment amendment techniques are proposed in the riverbed and vernal pools, etc., Mass Audubon suggests that a lower post-remediation ground surface elevation has many advantages over attempts to restore pre-remediation elevations within the floodplain environment. Expanding on this idea:

- Importing topsoil or fill increases the risk of introducing Japanese knotweed rhizomes and/or propagules of other invasive plants, even when screened.
- In general, the wetter (lower) a floodplain terrace is, the more resistant it is to invasion by invasive plants.
- The floodplain forest vegetation that is distinct from upland forests is mainly restricted to the areas that experience the most prolonged flooding regimes.
- Lower soil elevations contribute more to flood storage capacity, which is an increasingly important floodplain function with climate change.
- Natural sediment deposition in floodplain is variable, which creates an uneven microtopography of small ridges and swales that support a diverse vegetation of species with range of flood tolerance. Consequently, filling in of swales is to be avoided.
- Floodplain pioneer plants are adapted to recruiting on the moist fresh sediment seedbeds on sandbars. Bare mineral soils left behind from removing contaminated soils would mimic those natural sandbar seedbeds more closely than a topsoil brought in from an upland.

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

Regards,

Stephen Hutchinson
Senior Regional Director
Mass Audubon
[redacted]

November 18, 2023

Mr. Dean Tagliaferro
EPA new England
10 Lyman Street, Suite 2
Pittsfield, MA 01201
RE: Pre-Design Investigation 5A Non-Residential Floodplain Exposure Areas, Sept 2023.

Dear Dean,

Please schedule CCC informational public meetings, to discuss Pre-Design Investigation (PDI), 5A Sediment and Riverbanks, Non-Residential Floodplain Exposure Areas, and be prepared to answer questions the public may have about the Cultural Resources Survey. Please display maps, charts, and narratives so the public may understand the ROR project in better detail. Please provide the Performance standard and Statement of Work descriptions for the various activities as they are presented.

Please require GE to provide all the information SKEO has outlined in their technical review of GE's PDI-Reach 5A Non-Residential Floodplain Exposure Areas September 2023 report where they begin with "the community may want to ask EPA if GE will….

Please require GE to:

1. Amend the PDI Summary Report to include tables of summary statistics and assumptions for each EA so the public may understand the context of the calculated EPCs more fully.
2. Revise the report to include a narrative describing data validation QA/QC findings.
3. Should the proposed vernal pools to be used for the vernal pool pilot study need to be revisited based on the information provided within this document to verify the accuracy of the PCB concentrations shown in Table 3-3 of this document.
4. How will GE and EPA split sample results be used, whether for project QA/QC procedures or for continued EPC calculations. How will the diverging concentrations be addressed.
5. Clarify how EPCs were calculated with the addition of summary statistic information for each EA and a further description of how "relevant data from 2023 was determined".
6. Will the SKEO Identified areas within the EAs require additional sampling since elevated total PCBs have been identified immediately adjacent to the 1 mg/kg isopleth. See SKEO table in Comment # 7.
7. Require GE to provide the non-residential floodplain performance standards to be enveloped into the PCB polygon maps provided in Figures 3-2 through 3-25 to better visualize the potential remedy footprint for each EA?
8. Please provide the scope of the proposed additional sampling and the associated schedule as required by the SOW.
9. Will the elevated total PCB concentrations estimated represent a data quality concern that needs to be addressed in this document?

Sincerely,

Gail Ceresia
[redacted]

Citizens for PCB Removal Comments December 4, 2023

Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas

While there has been significant physical sampling and testing in the Non-Residential Floodplain for reach 5A including identification of vernal pools and more, there is new technology that would benefit an overall permanent archive of Rest of River including Reach 5A.

With the likelihood that it may take two years before any remediation activities will begin, CPR strongly urges GE and EPA to use an exciting technology called LIDAR (LIDAR Scanning or Mapping) being used by archeologists for a project called The Earth Archive (www.theeartharchive.com).

Here is an excerpt from https://www.sapiens.org/archaeology/lidar-mapping-earth/

"What lidar data provides is not a flat image but instead a dense, three-dimensional cloud of points recording the Earth's surface and everything on it in incredible detail. Using computer software, researchers can filter the point cloud to identify features such as trees, geological fault lines, hydrological elements, and much more. Using 3D visualization technologies, researchers can actually walk through the resulting "point cloud."

"Because traditional archaeological methodologies are so time intensive, the richest information that academics have about the past is limited to a handful of impressive case studies laboriously collected over decades by dedicated researchers. This means that there is much left to be explored. Wherever archaeologists point a lidar instrument—whether it's around a known site or a completely unexplored region—we unveil amazing and previously undocumented finds. Our archaeological universe is going through its own big bang."

This technology will create a permanent digital point in time for the Housatonic River prior to any future remediation. It will also assist in verifying that post remediation will meet the goals established in the Rest of River process.

This is our one chance to get things right for our Housatonic River and its historically important cultural resources. When looking at the vast amounts of monies that will be spent on this project, it seems that this will be inconsequential to the total outlay. It is SO IMPORTANT.

Start with Reach 5A and complete the same LIDAR mapping for Rest of River. It would also be an important archive if this was done to the Housatonic that flows through Connecticut to the Long Island Sound. You can even go back and map the ENTIRE Superfund site including the first half mile, the next mile-and a half, the GE plant site, Unkamet Brook and the location of the UDF.

We MUST use every technology at our disposal.

Charles Cianfarini

Interim Executive Director

Citizens for PCB Removal