Public Input on General Electric's June 30, 2022 Revised Baseline Monitoring Plan

July and August 2022

From:	Iott, Traci
To:	Fontaine, Joshua
Cc:	Tagliaferro, Dean; graham.stevens.ct.gov; Peterson, Susan (DEEP-WPLR); Papp, Carol
Subject:	CTDEEP Comments on Baseline Monitoring Plan
Date:	Monday, August 22, 2022 12:19:41 PM

Josh -

Thank you for the opportunity to review and comment on the revised Baseline Monitoring Plan. Our comments are provided below:

- Please correct the abbreviations that are used in the report. Our agency should be abbreviated as CTDEEP (current) or CTDEP (past), not CDEEP and CDEP.
- YOY fish sampling in Reach 11 is currently planned for Largemouth Bass and Yellow Perch. There are low densities of Largemouth Bass in this section of the river, which would likely make it difficult to get a sufficient sample. We recommend changing to Smallmouth Bass for Reach 11 YOY sampling. That would also be consistent with the sampling planned for adult fish in this Reach.
- Please double check the order for the fish species in Table 3-5. The table appears to be in alphabetical order although the various bluegill entries are not necessarily in correct order, either based on bluegill or additional species in the sampling composites.
- If updated or new QAPPs are developed for any of the sampling to be conducted under this Baseline Monitoring Plan, CTDEEP would appreciate the opportunity to review and provide comments on these QAPPs.
- Given the limited amount of data collection in CT, please delete any references to the ability to propose a reduction in sampling within CT under this Baseline Monitoring Plan. Examples of this language include:
    - g. 31, paragraph 2, regarding surface water sampling: "After evaluation of the first year of data, GE may propose a reduction in the number of sampling locations in the second year (e.g., if PCB concentration in adjacent reaches are shown to be similar)."
    - Pg. 38, paragraph 2, regarding fish sampling: "After collection of the first year of data, GE may propose a reduction in the number of sampling locations in the second year based on an evaluation of the first year of data (e.g., if PCB concentrations in adjacent reaches are shown to be similar)."
- On page 38 the document states, "If fish are not present and target numbers cannot be collected after a reasonable effort, sampling may be discontinued in that reach; any decision to discontinue sample will be made in consultation with the EPA field representative." Please also coordinate with CTDEEP on this situation. Our Fisheries Staff would have experience or suggestions that could help with sampling fish in CT. If sufficient numbers of target fish are not available, please require GE to sample alternate fish species, to be determined after consultation with CTDEEP.
- The summary of historical data provided in this document is helpful. Please require GE

to provide the data in useable electronic formats, including Excel spreadsheets, with all of the individual historical sampling results for all media, biota, etc. and including latitude and longitude, if available, or location information if sampling coordinates are not available. GE should enter any environmental data collected under an approved QAPP or similar quality assurance plan to be entered into the EPA Water Quality Exchange. (Water Quality Data | US EPA)

- For data collected under the Baseline Monitoring Plan or other monitoring requirements,
    - Require GE to provide the geospatial location for proposed and final sampling locations, as an Excel table with latitude and longitude and also as an ArcGIS Pro project with sample locations and appropriate metadata, and the ability to expand to include baseline monitoring data when available in the future.
    - Require GE to provide all data for all media in useable electronic formats, including Excel spreadsheets, with information on each individual sampling result in addition to information on composite samples. For example, if multiple fish are collected for composite sampling, but PCB analysis is only conducted on the composite sampling, information would still be provided on each individual fish used in the composite, such as date/time/location of collection, species, weight, length, age, gender, breeding status, etc. This approach should be applied to all forms of composited samples.
    - Require GE to enter monitoring data collected under an approved QAPP or similar quality assurance plan into the EPA Water Quality Exchange

Thank you for the opportunity to comment. Please reach out with any questions.

Traci

Traci Iott
Supervising Environmental Analyst
Water Quality Group
Bureau of Water Protection & Land Reuse
CT Department of Energy and Environmental Protection

Email: traci.iott@ct.gov
Phone: 860-424-3082

August 22, 2022

Dean Tagliaferro, EPA Project Manager
GE-Pittsfield/Housatonic River Site
Boston, MA
Submitted via email to R1Housatonic@epa.gov

Re: Comments on the *Revised Baseline Monitoring Plan* (June 2022), hereafter referred to as the Revised BMP

Dear Mr. Tagliaferro:

The Housatonic Rest of River Municipal Committee (The Committee) respectfully submits the following comments on the *Revised Baseline Monitoring Plan* (June 2022). On September 19, 2017, The Committee originally submitted comments to the EPA on the *Baseline Monitoring Plan* (June 2017). Since that time GE's consultants have submitted an *Interim BMP* (January 2022) and most recently the *Revised BMP*. During those years the EPA has issued Conditional Approval Letters (CALS) approving some proposed work items and directing GE to revise other proposed work. The Committee would like to thank EPA for considering its 2017 comments and directing GE to conduct a more thorough and appropriate baseline monitoring program than had been proposed in the 2017 and January 2022 BMPs. While not all our comments are reflected in the CALS and the subsequent BMP revisions, we appreciate that many of our concerns that been addressed.

General Comments

In general, we believe that the baseline monitoring program, as proposed in the Revised BMP, are not comprehensive enough to adequately document PCB concentrations in surface waters, sediment and biota. The cleanup of the Housatonic Rest of River is one of the largest remedial projects being conducted within a rural, natural landscape. Comprehensively documenting the environmental conditions before, during and after remedial action serves not only EPA's goals, but can also serve the larger scientific community here and at other cleanup sites. In essence, the river ecosystem is a living experiment on the effectiveness of remediating and containing PCBs in the short and long term. It is therefore important that the baseline monitoring program be comprehensive throughout all the reaches of the river, not just those in the MNR reaches. We urge EPA to direct GE to expand baseline sampling for biota all along the river, especially for waterfowl and invertebrates in the upper reaches.

The Committee's Comment 2022: The Revised BMP does not at all discuss a monitoring program to be conducted during and post-construction. A summary description of how and when GE proposes to draft monitoring plans would have been helpful in this Revised BMP. All surface waters and sediment sampling should occur throughout the construction phase, with sampling being taken downstream of segments where construction is occurring. Sediment and PCBs could be redistributed during construction, or during severe storm events that occur during the construction period, despite best management practices.

_____

The Committee's Comment 2017: We request that the coves/backwaters in Lee be called out as specific areas for monitoring and possible cleanup activities.

The Committee's Comment 2022: Although we acknowledge that the Lee coves/backwaters are in the Columbia Mill Dam Reach 7B, which is not covered in this Revised BMP, we restate our request that these waterbodies receive direct attention in an upcoming Pre-design Investigation Work Plan for this reach.

Surface water sampling

The Committee's Comment 2017: We oppose any reduction from a monthly to a quarterly sampling regimen. We disagree that what appears to be seasonal trends is sufficient rationale for reducing sampling frequency.

The Committee's Comment 2022: We thank the EPA for requiring monthly sampling for two years. GE has hinted that it would like to reduce surface water sampling to one year (p. 31). We oppose any reduction of sampling, believing that a minimum of two years of data is necessary to capture a realistic snapshot of PCBs and the other water quality parameters within the river in order to measure the effectiveness of remedial actions. We thank the EPA for directing GE to add more sampling sites all along the ROR corridor.

_____

The Committee's Comment 2017: It is critically important to document the PCB concentrations flowing over both the Woods Pond and Rising Pond dams as the PCB flux at these sites are the Performance Standards for downstream transport of PCBs. As such samples should be captured not only at the wing walls of the dam, but also at two or more sites across the middle span at each of the dams.

The Committee's Comment 2022: Capturing the movement of PCBs over the Woods Pond and Rising Pond dams is key to determining if remedial actions are meeting the Performance Measures of the Final Permit. It is our understanding that eight sampling events are currently being undertaken at the wing walls of both dams and at sites below the dams. This work is to compare data taken at the wing walls with data taken just below the dams to determine if PCB concentrations are similar at the three data points at each site. This work will help to determine if automatic sampling at the wing walls reflect accurate flows of PCB concentrations over the dams. Once this data is reviewed, EPA will determine if the wing wall data collection points are adequate measuring tools for monitoring PCB concentrations for compliance with the Final Permit. The data taken now does not constitute part of the required two years of data collection at these sites.

If the data reveals that the wing wall sampling sites are not adequate, we urge EPA to require GE to develop a method of collecting surface water sampling in the channel near the dams or immediately below the dams. GE should be able to devise a method to collect water in the middle of the channel at the dams, perhaps seeking advice from the USGS or some other agency that has experience in gathering water quality data at such sites. We believe that the surface water sampling program at these two sites should be robust and comprehensive, and we urge EPA, in consultation with MA DEP and the USGS, to develop a program that will provide the most complete and accurate information about PCB movement over the dams.

_____

The Committee's Comment 2017: The proposed surface water sampling program does not include high flow conditions. While we understand personal safety concerns of collecting samples during high flows, we do not believe it is beyond GE or its consultants to devise a system to collect samples during high flow conditions to more accurately track changing PCB concentrations during spring melt / severe storm events. It is likely that high flow conditions, with higher sediment loads and greater aeration due to churning/whitewater conditions, have corresponding higher PCB concentrations. It is therefore important to get baseline information on the PCB concentrations under these conditions. This is all the more important as high flow conditions are likely to increase in frequency due to the documented increase in severe storm events.

The Committee's Comment 2022: We restate our request that a supplemental sampling program be established for capturing high flow conditions/events. We do not believe that sampling during high flows necessarily means that consultant staff will be placed into unsafe conditions. EPA could choose key sites that are already being sampled at bridge locations, which would provide for safe sample gathering while also providing a contrasting picture of PCB movement during low and high flow conditions at these sites. Examples might be New Lenox Road, the pedestrian bridge or Schweitzer bridge at Woods Pond, Division Street, and Ashley Falls Road in Massachusetts, and similar sites in Connecticut. The request for high/storm flow sampling was also requested by Mass Audubon in their letter of September 14, 2017.

Sediment

The Committee's Comment 2017: We request that the BMP clearly state that sampling will be conducted in at least the top 6 inches of sediment, in keeping with guidelines for river sediment and for consistency with what has been done in past sampling programs.

The Committee's Comment 2022: We thank the EPA for requiring sampling to a depth of 0-6".

Biota Sampling

The Committee's Comment 2017: As PCBs accumulate in fatty tissues, it is expected that fish oils and fatty tissues would contain higher levels of PCBs than fillets. We request that the BMP establish a monitoring program that adds analysis of fish oils and/or fatty tissue on to the proposed fillet analysis.

The Committee's Comment 2022: CT DEEP's letter of 9-15-17 requested that "Each fish must be evaluated for body weight and condition, length, gender, health and reproductive status, and age. PCBs and % lipid must be evaluated for fillets and reconstructed whole body values." We note that EPA's CAL

of 3-29-22 directs GE to conduct percent lipid in all analyses. While we do not have the expertise to evaluate the proposal in the Revised BMP, we thank the agency for including lipid analyses in its CAL. We do not believe that CT's comment regarding reconstructed whole body values has been addressed in the Revised BMP.

_____

The Committee's Comment 2022: Regarding fish sampling, conducting only two sampling events does not seem adequate to represent a complete picture of PCB contamination in fish populations. It is all the more important to understand current PCB concentrations in fish because it is a Performance Standard within the Final Permit. We request that EPA work directly with MA DFW and/or USFWS to determine the most appropriate sampling program, sites, frequency, laboratory analyses and SOPs. We do not agree with GE's proposal that sampling may be discontinued at a site if fish are not present and target numbers cannot be collected after a reasonable effort. Consultation with MA DFW should be conducted to determine a site nearby that will yield the necessary specimens.

_____

The Committee's Comment 2022: Collection of waterfowl is proposed to capture 20 wood ducks and 20 mallards during one event at each of three impoundments, including Woods and Rising Ponds. These locations do not seem comprehensive enough to correlate to all previous waterfowl sampling events. We also note that PCB concentrations in previous sampling events included liver analyses. We request that EPA take advantage of the historic data obtained in the past so that long-term trends might be identified all along the river corridor, which includes expanding the number of collection locations in the upper reaches of the river and adding liver analyses of specimens taken. Again, because this medium is a Performance Standard in the Final Permit, we urge EPA to work directly with MA DFW to determine the most appropriate sampling program, sites, frequency, lab analyses and SOPs. As these species are migratory, perhaps USFWS biologists should also be consulted.

_____

The Committee's Comment 2022: There is no aquatic invertebrate sampling being proposed within the many miles of river in Massachusetts. This is a serious omission, as the abundance and diversity of aquatic invertebrate species are keen indicators of ecosystem health. The issue of invertebrate and other aquatic species sampling was raised by the CT DEEP in their letter of September 15, 2017, and we feel that we should raise this issue in 2022. It is our understanding that there has not been a lot of historical sampling of these populations. If so, now is the perfect time to begin creating that historic baseline record, one that can be referenced throughout the 13-20+ years of the cleanup period and beyond.

Documenting existing PCB contamination within this community is key to determining if remedial actions are successful. Again, the cleanup of the Housatonic Rest of River is an opportunity to fully document the success or limitations of the remedial actions conducted under the Final Permit. According to a 2007 post-construction sampling study of benthic invertebrates in the first 1.5 mile of river that has been remediated in Pittsfield, data seem to indicate an improved environment, with a decrease in benthic invertebrate tissue PCB concentrations and a slight-to-moderate increase in species richness. Newer studies conducted since that time and going forward can provide additional

information as to the cleanup's effectiveness. The opportunity to track post-construction improvements throughout the full length of Rest of River cannot not be realized without baseline invertebrate sampling in its upper reaches. Section II.B.4.b.(1) of the Modified Permit seems to allow this additional baseline sampling.

_____

In closing, The Committee believes that the purpose of the Performance Standards are not just a measure of the cleanup, but a measure on whether the river is safe for future generations. The Performance Standards are more than just data; they are real-world promises made to the public, and if the cleanup does not deliver on those promises by providing healthy fish and wildlife, it has failed. GE has a responsibility to conduct the cleanup in good faith, including the responsibility to deliver on any data that helps to satisfy that expectation and comprehensively report on the condition of the river ecosystem pre- and post-remediation.

Thank you for this opportunity to express our concerns.

CHARLES J. MCCREERY [redacted]

[redacted] e-mail: [redacted]

VIA EMAIL R1Housatonic@epa.gov

July 21, 2022

Mr. Dean Tagliaferro
EPA Project Coordinator
U.S. Environmental Protection Agency
c/o HDR, Inc.
10 Lyman Street, Suite 2
Pittsfield, MA 01201

Re: GE-Pittsfield/Housatonic River Site
Rest of River
Revised Baseline Monitoring Plan
Public Comments

Dear Mr. Tagliaferro,

I am submitting comments on the General Electric Company (GE) Revised Baseline Monitoring Plan, submitted by GE on June 30, 2022, for the Housatonic Rest of River Permit. For the record, I am a retired US Department of Interior water quality Subject Matter Expert, a former Massachusetts Licensed Site Professional, and since 2016 have been studying ocean dumping of dioxins as permitted by EPA between 1973 and 1977. My qualifications to submit technical comments on the Housatonic River cleanup are given in my LinkedIn profile at [redacted]

My primary comment about the Revised Baseline Monitoring Plan also applies to previous planning documents submitted by GE for the site. The planning documents do not consider Chemicals of Concern (COCs) other than the 209 polychlorinated biphenyl (PCB) congeners that may be expected to be present in dredged sediments. GE proposes to operate the Upper Disposal Facility as a non-hazardous landfill, with dewatered sediments in the landfill having total PCB concentrations not to exceed 50 mg/kg. Landfill leachates and groundwater downgradient of the landfill would be analyzed for total PCB only.

The sole use of total PCB concentrations for site assessment, risk characterization, and remediation might be appropriate for a spill of virgin refined PCB transformer oil, but not for a more complex remediation waste type that might contain other more toxic chemicals. More toxic chemicals in the mix would drive the risk characterization, not total PCB. Assessment and planning documents prepared by GE since 2012 do not appear to consider any COCs other than total PCB. Somehow, more toxic accessory chemicals previously detected in the river have been omitted by GE. I have been unable to find any technical justification for dropping those COCs.

The GE/Housatonic River site was subject of a Public Health Assessment conducted by the Agency for Toxic Substances and Disease Registry (ATSDR), documented in a report, dated August 25, 2008, which is

posted here: https://www.mass.gov/doc/general-electric-site-housatonic-river-public-health-assessment-final-release-0/download?fbclid=IwAR1c8OijwOJgeE0fXHRfuvczikGbkEizkDRgNzJAhT2fizBuGs1u4RmbMvY

Conclusions beginning on Page 67 of the ATSDR report state, "PCB and dioxin/furan contamination in the Housatonic River is and was a "Public Health Hazard" for people who consume mallards, wood ducks, and possibly other waterfowl taken from the Housatonic River and surrounding area due to PCBs and dioxin/furans in waterfowl tissue." ATSDR repeated this warning for fish caught from the river. "In fish and waterfowl on the other hand, contaminants besides PCBs (i.e., dioxins/furans) may appreciably increase exposure concerns already posed by PCBs." ATSDR was clear that dioxins and furans should be COCs for the site.

ASTDR reported the most toxic dioxin congener (2,3,7,8-tetrachlorodibenzo-p-dioxin, or TCDD) in three of three samples of surface soil at an average concentration of 8.2E-07 mg/kg and a maximum concentration of 9.3E-07 mg/kg. TCDD was detected in three of eight samples of surface sediment at an average concentration of 4.6E-06 mg/kg and a maximum concentration of 9.0E-06 mg/kg (concentrations exceeding 2.5E-05 mg/kg are considered hazardous according to the Massachusetts Contingency Plan). Some of the surface sediment analyses had elevated detection levels insufficient to detect TCDD. Unfortunately, TCDD concentrations in surface soils and sediments have not been analyzed in a sufficient number of samples to be able to estimate what actual TCDD concentrations might be dredged up during remediation. GE and EPA should know that TCDD in the river sediments present a risk even though their concentrations may be below what might be considered hazardous.

Dioxins, including TCDD, and furans are formed when PCB transformer oil is burned (https://www.cdc.gov/niosh/docs/86-111/default.html). The association of dioxins and furans with PCB in the river suggests the waste may have originated from burned transformers returned to GE after a fire. This interpretation is quite different from the site model currently being presented by GE.

It is my contention that there will be dioxins and furans in the dredged sediment destined for the Upper Disposal Facility, and that those chemicals may be the primary risk drivers, not total PCB. That soil would be appropriately characterized as "dioxin-containing soil" because it contains TCDD, the most toxic of the dioxin congeners. This material may be subject to Land Disposal Restrictions (LDR) pursuant to 40 CFR Part 268 https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-268, or the waste may qualify for disposal in a Toxic Substances Control Act (TSCA) landfill based on actual TCDD concentrations.

It is my contention that risk from dioxin and furans in the dredged sediment, if combined with risk from dioxin-like PCB congeners already being considered, would conclude the material is hazardous and not suitable for the Upper Disposal Facility being proposed.

GE and EPA should recognize this material was not appropriate for ocean dumping at the Massachusetts Industrial Waste Site (IWS-1) at Stellwagen Bank and is not appropriate for placement adjacent to the Housatonic River.

I appreciate the opportunity to comment on this phase of the Housatonic River cleanup. I look forward to EPA's written response to this letter.

Sincerely,

Charles McCreery, CPG

Cc:

R. Christopher Brittain, Lee Town Administrator
cbigelow@town.lee.ma.us

John Ziegler, MADEP
John.Ziegler@mass.gov

Capt. Tarah Somers, RN, MSN/MPH, Regional Director, ASTDR
tvs4@cdc.gov

Margret R. Cooke, Commissioner, Massachusetts Department of Public Health
Margret.R.Cooke@State.MA.US

Larry Parnass, The Berkshire Eagle
lparnass@berkshireeagle.com