Housatonic Rest of River Remediation Project

Frequently Asked Questions (FAQs)

General Project FAQs:

What is the Housatonic Rest of River Remediation Project?

The Rest of River Remediation project involves the dredging of polychlorinated biphenyl (PCB) contaminated sediments from the Housatonic River (the River) and its floodplains from south of Pittsfield to the Rising Pond Dam, as required by the EPA. The EPA has determined that, following restoration, the River should be safe for recreational activities, fishing, and for general use. The Project is currently in the planning and design phase.

Who is involved in this project?

GE and their contractors are responsible for design and implementation of the PCB clean up, including dredging, transportation, disposal and restoration. The EPA is the Regulatory Authority overseeing the cleanup and has the responsibility for approving remedial actions. The Town of Lenox, as one of the five communities where dredging will occur, was a member the Rest of River Municipal Committee. Weston & Sampson is providing technical support to the Town of Lenox for reviewing plans submitted by GE and offering comments to the EPA on behalf of the Town.

How did we get to this point in the project?

In 2018, the Town of Lenox Select Board, as Executive Authority, made the decision to participate with the Rest of River Committee in a mediation process for the Rest of River Cleanup involving EPA and GE. On February 5, 2020, following lengthy negotiations and legal actions, a Settlement Agreement was signed between the mediation parties.

For a full synopsis of the mediation process and the negotiated terms of the Settlement Agreement, please refer to the document, titled “Background, the Municipal Committee, Mediation and Settlement,” which is available on the Town of Lenox webpage here:

https://www.townoflenox.com/sites/g/files/vyhlif3341/f/uploads/statement_of_ror_municipalities_0.pdf

The Settlement Agreement is available on this webpage:

https://berkshireplanning.org/wp-content/uploads/program_documents/brpc_initiative/housatonic-rest-of-river-municipal-committee/default/Fully_Executed_Settlement_Agreement_Feb_2020.pdf

What are the next steps?

The Housatonic River Remediation Project is currently in the planning and design phase. Permitting and Litigation were completed in 2022 and planning work over the next year is anticipated to include:

- GE and their contractors to prepare and submit to EPA plans and designs for each element of the project.
- EPA to review plans and designs and provide comment to GE and their contractors.

- The EPA-review process includes solicitation of public comment.
- Weston & Sampson, on behalf of the Town of Lenox, will complete a technical review of plan and design documents and provide the Town with written comments for submission to the EPA for consideration during the EPA-review process.
- GE and their contractors will revise plans and designs based on EPA comments and reissue reports.
- It is anticipated that construction of the Upland Disposal Facility will be completed prior to performing any dredging work.

What happens if nothing is done to remediate the river?

If nothing is done to clean up the Housatonic River, it will remain unsafe for swimming and other recreational activities. It will also remain unsafe to consume fish from the Housatonic River. Without cleanup, the river will remain unsafe and unusable for many years and will remain a burden on the community and not the asset that will be available after remediation.

How much will the cleanup and remediation work cost? Who is paying for it?

The Housatonic River clean-up and remediation project is the responsibility of GE to complete, and GE will bear the entire cost of cleaning up the River. The project is still in design phase and anticipated costs have not been made public by GE.

PCBs

What are PCBs?

PCBs, or Polychlorinated Biphenyls, belong to a family of man-made organic chemicals known as chlorinated aromatic hydrocarbons. PCBs were domestically manufactured until they were banned in 1979 under the Toxic Substances Control Act (TSCA - "tosca"). They have a wide range of toxicity and can vary in consistency from light-colored liquids to darker, waxy solids. PCBs cause various adverse health effects and are suspected carcinogens. PCBs can impact the immune system, reproductive system, neurological system, and endocrine system. PCBs do not easily break down or degrade, which made them attractive for use in industrial products. Industrial applications of PCBs included their use as fluids in electrical, heat transfer, and hydraulic equipment, as plasticizers in paints, plastics, sealants/caulking, and rubber products, and as additives to pigments, dyes, and carbonless copy paper. Manufacturing PCBs is now banned.

How do PCBs get into the environment? When will they break down?

Historically, PCBs were released directly to the environment from the improper disposal of waste/by-products from manufacturing operations. PCBs can still be released into the environment today from poorly maintained hazardous waste sites, improper dumping, or leaks from electrical transformers. According to the EPA, PCBs do not readily break down once in the environment. They can remain in the environment for long periods of time due to their different forms and cycle between air, water, and soil. However, PCBs have very low solubility in water (i.e., they don't dissolve very readily) and typically exist in the environment as molecules absorbed onto soil and sediment. This is why PCBs are persistent in the Housatonic River sediments and why sediment removal/disposal is the target of the planned Rest of River Cleanup project. PCBs can also accumulate in plants and crops and then also

be taken up by small organisms and fish that eat the plants and crops. This process is called bioaccumulation.

Treatment and Remedy Options

What is the proposed method for treatment/removal of PCBs from the Housatonic River?

PCBs will be removed from the River by removing PCB-contaminated sediments by dredging. The PCB-contaminated sediments will be dewatered and transported to landfills for burial. Landfills used for PCB-contaminated sediment disposal will be designed, constructed, and operated in a manner to prevent PCBs from releasing back into the environment. The primary disposal site for dredged River sediment will be the proposed Upland Disposal Facility (UDF) to be constructed at the former Lane Construction Corporation property located off Willow Hill Road in Lee, Massachusetts.

Has the effectiveness of this method been proven in other cases?

Yes. Dredging of contaminated sediments is routinely performed and is a safe and effective means to remove contamination from the river environment. PCB-impacted materials are typically disposed of in specially permitted landfills. Landfilling is a proven safe and permanent solution for the containment of PCB-impacted materials and as a means to permanently remove and isolate PCBs from the environment.

What other alternatives were considered by GE and why was the proposed method selected?

One potential remedial alternative would be to bury the PCB-impacted sediments in place (i.e., within the river) beneath rock and gravel materials. This alternative was not deemed to be appropriate for the Housatonic River. Treatment of PCB-impacted sediments in place (i.e., in-situ) has never been performed and there are no proven technologies to degrade PCBs in-situ. Thus, the selected remedial technology is to physically remove (i.e., dredge) PCB-impacted sediments from the river.

Once removed, federal regulations allow for PCBs-impacted sediments to be disposed of in a specially permitted landfill. Other alternatives allowed under federal regulations include thermal destruction of PCBs in sediments via incineration, and chemical removal of PCBs from the sediments using a solvent. Given the extremely large volume of sediments (~one million cubic yards) to be removed from the Housatonic River, thermal destruction and solvent washing are not considered practical or feasible. Thus, disposal in a landfill was selected.

The Upland Disposal Facility (UDF)

How is a UDF designed? How is it monitored? Who will make sure this is built correctly and maintained? What is their expertise?

The UDF will be designed to meet requirements established by EPA. The UDF design is being performed by an engineering consulting firm (Arcadis) experienced in this type of work. The final design will be reviewed, signed, and stamped by a licensed Professional Engineer (PE). Construction of the UDF will be performed by contractors with demonstrated experience in landfill construction. Materials used to construct the landfill will meet requirements and specifications established by EPA and the design firm. Each of the materials will be tested to determine that material specifications and

construction requirements have been met. GE will be required to submit a construction certification report to EPA prior to use of the UDF for disposal of PCB-impacted sediments. The report will document the materials used, testing performed, and that construction requirements have been met.

GE will be responsible for long-term maintenance and monitoring of the UDF and will bear the cost. A financial surety will be established to cover the costs of long-term maintenance and monitoring should GE fail to perform the work or go out of business.

Why is GE building the UDF in our area? Why can't they just send the waste somewhere else? Are there any other alternatives?

During negotiations with EPA and the Rest of River Committee, GE requested that they be allowed to construct the UDF at the proposed location. EPA determined, and the Rest of River Committee concurred, that the UDF would not pose a risk to human health and the environment if certain conditions were met. As such, there are design and construction requirements placed on the UDF as designated by EPA and negotiated with the Committee. The location for the UDF was evaluated in the UDF Pre-Design Reports and comments on the Final Pre-Design Report are due to EPA by May 20th.

No single party has the final authority to determine what will be done. The process for final selection of the remedies for dredging, transportation and disposal includes negotiations between the regulatory authority (EPA), the responsible party (GE), and the affected communities. When the parties cannot reach an agreement, the final decision is through litigation and courts make the final decision as to what the law allows. The use of the UDF was subject to litigation and incorporated into the Settlement Agreement and the decision is final.

What protections ensure that material in the landfill will not leak into our groundwater? How is leachate managed during treatment, staging and placement at UDF?

There are multiple protections that will limit the generation of leachate and collect any leachate generated before it can impact groundwater. These protections include:

1) A double base liner system separated by a drainage layer and incorporating primary and secondary leachate collection systems.
2) Dredged materials will be dewatered and treated prior to transport to the UDF. Dredged materials cannot contain free liquid (e.g., water that could drain from the dredged materials) when they are placed in the UDF.
3) Any water that drains from the sediment materials placed in the UDF (i.e., leachate) will be collected, treated, and then discharged under a permit to the Housatonic River.
4) Stormwater will be diverted from the UDF and any precipitation that falls onto the UDF will be collected so that no free liquid is present in the landfill.
5) Once filled, the UDF will be capped with materials that will prevent stormwater from infiltrating. Systems will be installed to divert and control the drainage from the cap.

Leachate draining from the sediment materials will be captured in the primary and secondary leachate collection systems and pumped via a series of riser pipes to a perimeter force main pipe that conveys the leachate to on-site storage tanks. The storage tanks will be constructed with secondary

containment to collect any leaked or spilled leachate. Once enough leachate has been collected, it will be pumped through a treatment system. The treatment system will remove contaminants from the leachate such that the water is clean enough to discharge to the Housatonic River. The quality or "cleanness" of the water and the amount discharged will be regulated under a permit to be granted by the Massachusetts Department of Environmental Protection.

Why will sediments be disposed of in the Upland Disposal Facility?

Per the Settlement Agreement, the Parties (including Town of Lenox) agreed to the siting of a landfill (the Upland Disposal Facility) at the Lane Construction sand and gravel pit located in Lee, for disposal of certain PCB-impacted soils and sediments. The UDF will accept soils only if their average PCB concentration is below 50 parts per million (PPM) and sediments only if their average PCB concentration is 25 ppm or less. The UDF will be constructed with leachate containment and leak detection measures that are typically reserved for disposal of more highly contaminated soils and sediments. Per the Settlement Agreement, the UDF can only accept material removed during the Rest of River Cleanup. No material from any other project or site will be placed in the landfill. For additional requirements pertaining to the UDF, please refer to the document, titled "Background, the Municipal Committee, Mediation and Settlement," which is available on the Town of Lenox webpage for the Housatonic Rest of River Municipal Committee:

Housatonic Rest of River Municipal Committee | Lenox, MA (townoflenox.com),

A minimum of 100,000 cubic yards of materials will be transported to a landfill permitted to accept such wastes outside of Massachusetts.

FAQs about Transport and Disposal:

What is the risk or likelihood of trucks spreading or spilling PCBs during transport? What happens if there is a spill?

Prior to transport on public roads, water is drained from the dredged sediments. The sediment is then treated, if necessary, to remove any remaining free water. To further reduce the chance of releases of PCBs during transport, the truck beds are lined with a membrane that is sealed over the PCB-impacted materials before the truck goes onto the road.

If there is a spill, the spill must be reported to EPA within 24 hours and response actions are prescribed by EPA regulations concerning PCBs. Following the cleanup of the spill, EPA regulations require a post-cleanup sampling program be completed to determine if the release of PCBs has been properly addressed. A Spill Report is prepared and submitted to EPA following the completion of work that describes the spill, response actions, and the analytical results from post-cleanup sampling. The EPA reviews the report and either accepts that the cleanup has been completed or directs the responsible party to perform additional cleanup and/or sampling.

Is it possible for GE to use rail rather than trucks for transport of dredge material?

Yes. EPA and GE are currently engaged in negotiations concerning the use of rail to transport dredged material to the UDF and offsite disposal facilities. It is anticipated that the Revised Transport and Disposal Plan will indicate that rail will be the primary means of transport for dredged materials.

Has a feasibility or cost-benefit analysis been performed to determine the use of trucks over rail systems?

To date, GE has not provided a feasibility or cost-benefit analysis on the use of rail to EPA.

Who has the final authority to determine what methods will be used for dredging, transportation and disposal? Has GE presented a feasibility and alternatives analysis, with consideration of costs?

The EPA has authority to determine the remedial actions required for the Rest of River Remediation Project. GE has the right to appeal EPA decisions in court. The requirement to remediate river sediments was finalized during the permitting and litigation process. This process also included the use of the UDF as part of the remedial action, for the disposal of dredged sediment. The process for final selection of the remedies for dredging, transportation and disposal included negotiations between the regulatory authority (EPA), the responsible party (GE), and the affected communities. Decisions stemming from the outcome of negotiations were incorporated into the Settlement Agreement and are considered final.

Determination of methods for sediment removal and transportation of wastes is being done now as part of the planning and design phase of the project. GE and Arcadis are evaluating the project and generating a series of reports and design documents that describe their proposed methods for material dredging and transport, as well as their design of the UDF. These reports and design documents are being made available to the public for comment and EPA will compile comments as described above and resolve them with GE. Upon comment resolution, the design documents will be finalized for UDF construction and subsequent implementation of remedial activities on the River.

As part of the planning and design phase, the GE and Arcadis report documents present pre-design investigation studies and conceptual design reports that support feasibility analyses for the sediment removal, transport, and disposal methods selected. The feasibility analyses generally evaluate the selected corrective measures and methods vis-a-vis the Performance Standards established for the Rest of River Cleanup per the USEPA RCRA Permit (Revised Final Permit Modification, December 2020), for this project, and do not include consideration of costs.

Will there be a noise/traffic/air pollution/tourism study completed for the proposed transportation method (trucking)? Can the project begin sooner if rail systems were prioritized over trucking?

GE is currently in the process of revising the Transport and Disposal Plan with a goal to increase the use of rail in transporting dredged materials. The use of rail could potentially reduce the overall project completion schedule, but prioritization of rail transportation will likely not expedite initiation of the remedial action.

Long-term Monitoring and Effectiveness

Are there long-term monitoring requirements? Who is responsible for long-term monitoring and who will bear the cost?

GE will be responsible for long-term maintenance and monitoring of the UDF and will bear the cost. A financial surety will be established to cover the costs of long-term maintenance and monitoring should GE fail to perform the work or go out of business.

For the River, once the PCB-impacted sediments have been removed as verified through post-remediation sampling, the remediation is considered permanent and long-term monitoring is not required. However, PCBs or other chemicals could be released again, and the party responsible for that release would be responsible for remediation of the River.

Does this solution provide long-term effectiveness?

Yes. PCB-contaminated sediments and soil will be permanently removed from the River and permanently disposed in landfills.

How long will remediation take?

The EPA estimates that cleanup will take 13 years of active remediation.

Has a risk analysis been conducted with respect to climate change?

Yes. EPA requires that the effects of climate change be incorporated into the evaluation process.

Public Health and Safety

How will the community's health be prioritized and protected?

Protection of human health and the environment is EPA's main priority. EPA will direct GE to protect the communities in which work is performed.

Will the river be a safe area for recreation after the remediation is complete?

After remediation goals have been achieved, the River will be safe for recreation.

Is the water safe? Is it clean? Will it ever be?

Currently, the presence of PCBs in the River makes many recreational activities unsafe. Following remediation, The River will be safe and returned as an asset to the communities along the River.

Other General Questions / Public Comment Opportunities

Where should the public go to learn more information?

The EPA's webpage on the Housatonic Rest of River Remediation Project is here:

https://www.epa.gov/ge-housatonic

The Lenox Library has compiled relevant information regarding the project here:

https://lenoxlib.org/local-history-resources/rest-of-river-cleanup/

Will the Town be sending comments to EPA on GE Quality of Life Compliance Plan?

Yes.

How can the public submit their comments on the proposed plans?

Comments can be emailed to the EPA at R1Housatonic@epa.gov. The public comment schedule is provided below. The EPA is accepting comments in May on GE's Scope of Work and Design documents.

Be sure to focus your comments on the topic at hand only, rather than providing general comments on the entire project. The Lenox Library has compiled all the key reports from GE and their contractors as well as Weston & Sampson's responses at the webpage cited above.

Key Report from GE/Arcadis	Comments due to EPA by:
Revised UDF Final Pre-Design Investigation Summary Report	May 20
UDF Final Design Plan	May 20
UDF Operations, Monitoring, and Maintenance Plan	May 20
Woods Pond Dam Phase I Inspection/Evaluation Report	May 17