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EPA Releases Final Permit Modification for Cleanup of Housatonic River “Rest of River”

THE RIVER *The Housatonic River is contaminated with polychlorinated biphenyls (PCBs) and other hazardous substances released from the General Electric Company (GE) facility in Pittsfield, MA. The entire site consists of the 254-acre GE facility; the Housatonic River and its banks and floodplains from Pittsfield, MA, to Long Island Sound; and other contaminated areas. Under a federal Consent Decree, GE is required to address contamination throughout the site, including in the River.*



STATUS OF REST OF RIVER FINAL PERMIT

The U.S. Environmental Protection Agency has issued its final decision on its Rest of River permit, which outlines a final cleanup plan for a 125 mile stretch of the Housatonic River from Pittsfield, Mass. through Connecticut. This document is referred to as the Final Permit Modification for Rest of River.

EPA's cleanup plan follows an extensive public comment period and a dispute by the responsible party, General Electric Company (GE). The final cleanup will utilize a combination of targeted soil and sediment removal, riverbed capping and monitored natural recovery to address risks posed by polychlorinated biphenyls (PCBs).

THE CLEANUP PLAN

The cleanup plan requires GE to address PCB contamination that poses a health risk to the river and the impacted communities. This Final Permit Modification outlines requirements for GE to address contamination in river sediment, banks, floodplain soil and biota that pose unacceptable risks to human health and to the environment.

EPA estimates that the cleanup will cost an estimated \$613 million and would take approximately two years for initial design activities and 13 years for implementation. It's important to note that the majority of the sediment and floodplain cleanup is targeted within the first eleven miles of the river in the City of Pittsfield and the towns of Lee and Lenox. Phasing the work will also disperse the effects of the construction activities over time and locations.

In addition to addressing public health risks, the plan when fully implemented will reduce downstream transport of PCBs, allow for fish consumption advisories to be lessened or removed, and minimize harmful impacts to state-listed species and their habitats regulated under the Massachusetts Endangered Species Act.

Because this will be a lengthy and complex cleanup, EPA has written the cleanup plan to ensure it is performed using the best available technologies and methods.

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This is called an “adaptive management” approach. Further, EPA’s plan calls for contaminated material to be shipped off-site to existing licensed facilities for disposal. The plan also allows for the use of innovative technologies to treat the PCBs if these technologies are proven to be effective at meeting the project’s requirements.

EPA BELIEVES THE PLAN WILL:

- reduce risks to children and adults from direct contact with soil and sediment;
- reduce soil contamination in the floodplain to levels which allow continued recreational use without unacceptable risk;
- reduce PCB concentrations in fish to levels that allow increased consumption of fish caught from the River in Massachusetts and Connecticut, and reduce impact to affected communities relying on the fish for economic considerations or cultural practices;
- reduce the potential movement of PCBs from the river onto the floodplain, from the banks into the River, and from upstream to downstream locations, including the downstream transport into Connecticut; and,
- reduce contamination and risk for fish, wildlife and other organisms in the river, backwaters, floodplain, and vernal pools.

REST OF RIVER

The Rest of River is a 125 mile stretch of the Housatonic River from the confluence of the East and West Branches of the river in Pittsfield, Massachusetts into Connecticut. The active remediation will be in a 30 mile stretch of the river from the confluence to the Rising Pond Dam. See Figure 1 (on next page).

HOW WE GOT TO A FINAL PERMIT:

The cleanup plan was first proposed in June 2014 after extensive consultation with Massachusetts Departments of Environmental Protection (MassDEP) and Fish and Game (MassDFG) and the Connecticut Dept. of Energy and Environmental Protection (CT DEEP), as well as after a lengthy series of technical discussions with GE.

Following a four month public comment period and EPA’s consideration of those comments, EPA notified GE of its intention to finalize the Permit in 2015. Then, in October 2015, GE initiated a formal dispute process regarding the proposed cleanup plan. On October 13, 2016, after considering the statements of position by EPA and GE, a 10-page Final Administrative Decision was issued regarding the proposed cleanup plan. In upholding the plan, Carl Dierker, EPA Regional Counsel, addressed multiple criticisms that GE made to EPA’s proposed cleanup decision. Ultimately, he decided that “Given the scope and variability associated with a site of this size and complexity, EPA’s development of a cleanup approach overall is entirely reasonable and is supported by the data and information in the administrative record.”

CONSIDERING THE COMMENTS:

EPA has used its policy, scientific, and technical expertise to thoroughly consider the views of GE, our state partners, and the public at multiple points in the Rest of River decision-making process. EPA has subjected its own analyses to further scrutiny, including review by experienced, national-level EPA scientists and engineers, and independent scientific peer review.

EPA has also afforded GE and the public an extraordinary degree of participation and input on the Rest of River cleanup decision. Based on that substantive expertise, EPA has selected a remedy that is best suited for the Rest of River. EPA has also prepared a response to comments on the 2014 draft plan which provides a comprehensive response to comments and concerns raised by the public and GE at the public hearing and during the four month public comment period. See the section entitled “More Information” below for instructions on how to access this response to comments and the Final Permit Modification.

Overview of some major issues raised during the public comment period and how they are addressed by the Final Permit Modification:

- **Off Site Disposal:** A large percentage of the comments received from GE and the public were regarding the topic of on-site local disposal vs. off-site disposal of soil and sediment to be excavated as part of the remedy. EPA thoroughly considered all comments regarding this aspect of the remedy and reaffirmed our proposed decision to require off-site disposal of excavated materials at a permitted facility rather than including provisions for a local “on-site” facility in the Berkshires.
- **Extent of Cleanup:** There was a broad array of opinions regarding the extent of cleanup to be required, with many stakeholders claiming that EPA’s cleanup plan was either too extensive or not extensive enough. In the end, EPA selected a remedy

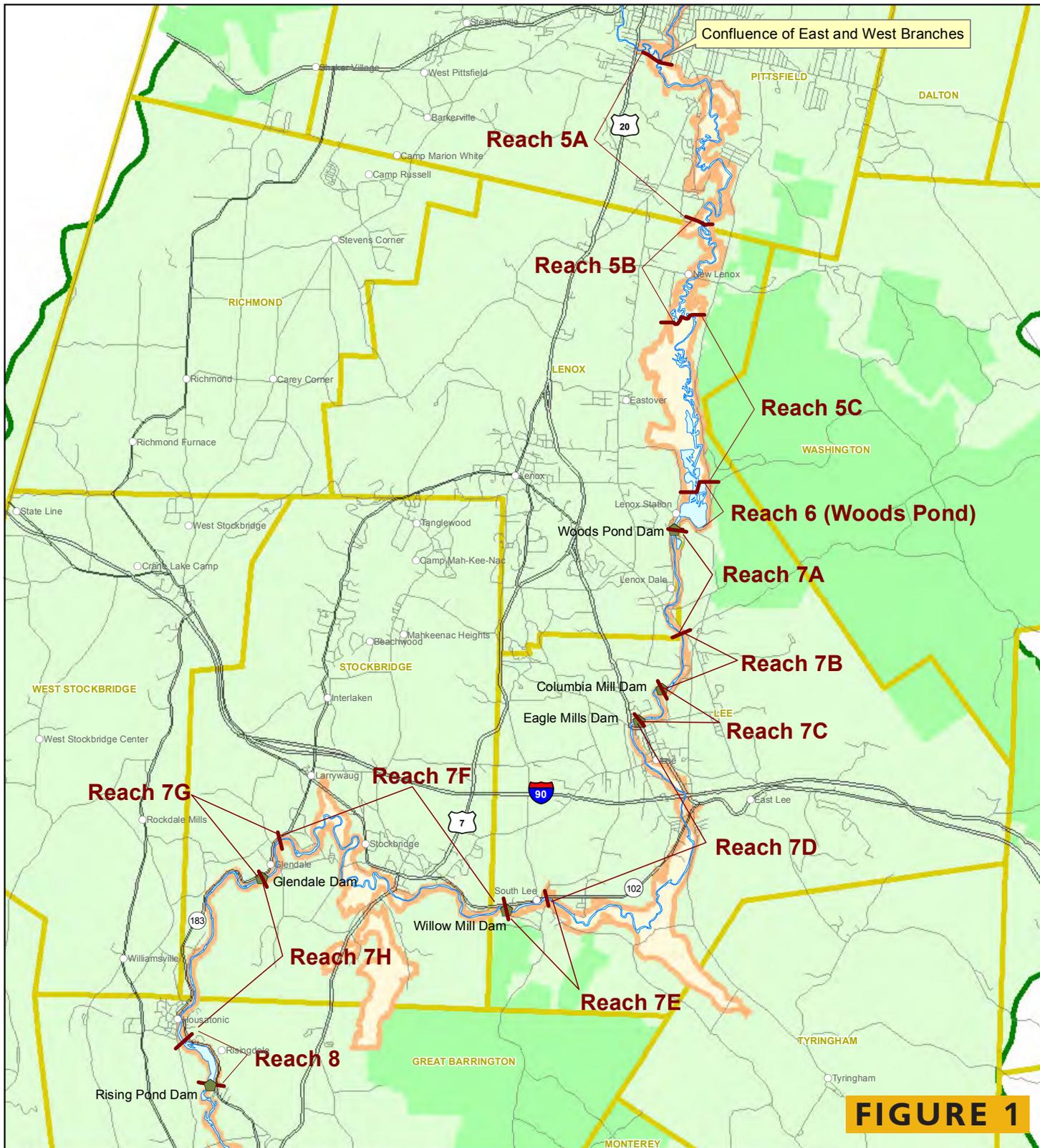


FIGURE 1

LEGEND:

	Town/City		Housatonic River
	Roads		State Park
	Reach Division Line		Municipal Boundary
			10-Year Floodplain

Scale: 1 0.5 0 1 Miles
 Scale: 0.850 0 0.85 Kilometers

GE- Pittsfield/Housatonic River Site
 Rest of River

FIGURE 1
 HOUSATONIC RIVER,
 PRIMARY STUDY AREA
 (REACHES 5 AND 6) AND
 REACHES 7 AND 8

somewhere in the middle. The remedy is implementable provides GE with a reasonable level of certainty and is supported by the Consent Decree signed by EPA, Connecticut, Massachusetts, and GE, and entered (approved) by a federal Court in 2000. The remedy is protective of human health and the environment, without subjecting the public to unnecessary risks.

- **Bioremediation:** Many members of the public asked EPA to mandate bioremediation as the primary remedy. To date, however, there has not been sufficient demonstration that bioremediation would be effective and meet the project goals. Due to the unacceptable threats to human health and environment posed by PCBs and the need to control the sources of releases of PCBs, EPA believes that the cleanup cannot be indefinitely delayed until a less invasive technology is found that is appropriate for all components of the cleanup.
- **Innovative Techniques for Cleanup:** Where appropriate, innovative technologies have been incorporated into the Final Permit Modification. Specifically, the Final Permit Modification requires the use of a sediment amendment such as activated carbon to address sediment in Reach 5B of the River, which is roughly the two mile stretch from the Pittsfield Wastewater Treatment Plant to south of New Lenox Road. Additionally, the final cleanup plan also calls for use of activated carbon and/or other comparable amendment in lieu of excavation/dredging of

sediment in certain backwaters, and as the primary remediation measure in vernal pools. Furthermore, with respect to innovative technologies, the Final Permit Modification specifically requires that an adaptive management approach “shall be implemented . . . to adapt and optimize project activities to account for . . . evaluation of innovative technologies, results from pilot studies . . .”. In addition, in the requirements for disposal of contaminated sediment and soil, the final Permit allows for the Permittee (GE) to propose to EPA for approval the use of innovative treatment technologies as part of an adaptive management approach.

- **Communication and Oversight Going Forward:** EPA heard a number of concerns from residents living near the river and local municipalities regarding the need for more information on construction plans, trucking routes, etc. The Final Permit Modification addresses these concerns. EPA will oversee the GE cleanup and will provide numerous opportunities for input by municipalities and the public at relevant points. The Final Permit Modification also includes additional requirements related to opportunities for municipalities to have input during the process for designing and implementing the remedy.
- **GE Responsibility to Minimize Impacts to the Community:** To address citizens’ concerns, EPA added requirements for GE to evaluate the impacts of road use on neighborhoods, infrastructure and the general public. GE is required to expedite its

plan for coordination with affected communities on the operation of temporary contaminated materials handling facilities. GE is also required to develop plans for addressing impacts regarding community health and safety, noise, odor, light standards, and recreational activities.

Specifics of the Final Permit Modification:

The cleanup plan prescribed by the Final Permit Modification relies on a combination of cleanup approaches that apply to specific “reaches” of the river, as described in the following column:

- Removing and capping PCB-contaminated sediment in some reaches in the Housatonic River.
- Monitoring natural recovery in some reaches in the Housatonic River.
- Removing PCB-contaminated soil from some areas in the 10-year floodplain adjacent to the river, including vernal pools, and restoring affected areas.
- Stabilizing PCB-contaminated erodible river banks that are a source of PCBs that could be transported downstream, focusing on the use of bioengineering techniques in restoring any disturbed banks.
- Using an amendment such as activated carbon in some portions of the River and vernal pools to reduce the bioavailability of PCBs.
- Transporting and disposing of all excavated contaminated soil and sediment off-site at existing licensed facilities approved to receive such soil and sediment.

- Placing restrictions (Institutional Controls) on eating fish, waterfowl, and other biota where PCB tissue concentrations pose an unacceptable risk unless/until such consumption advisories are no longer needed, as well as restricting other activities that could potentially expose remaining contamination.
- Establishing procedures for GE to manage and dispose of PCB contamination in the future, if needed.
- Maintaining remedy components and monitoring over the long-term to assess the effectiveness of the cleanup and recovery of the river and floodplain.
- Establishing mechanisms for additional response actions if land uses change (e.g. dam removal, changes in floodplain land use)
- Conducting periodic reviews following the cleanup to evaluate the effectiveness and adequacy of the cleanup in protecting human health and the environment.

EPA's balanced cleanup approach includes, over the 125 miles of river, banks and floodplain, components of active excavation, containment of PCBs, and monitoring the river for potential future action. This combination of remediation methods is best suited for the different types of PCB risks and exposure found throughout the Rest of River. The majority of the active sediment and floodplain remediation is within the first 11 miles of the confluence of the east and west branches, located in the City of Pittsfield and the towns of Lee and Lenox.

Within the context of the selected remedy, the Final Permit Modification includes provisions to address minimizing impacts of the remediation. The remediation will be conducted using a phased approach, thus an entire reach will not be affected at any single time or place. Phasing the work will also disperse the effects of the construction activities over time (the remedial action period is estimated to be 13 years) and location (a distance of over 30 miles).

Figure 2 (last page) outlines the estimated timeline to implement the cleanup, and shows how the cleanup is expected to proceed through the various towns along the river. As shown, a majority of the active remediation will take place in the City of Pittsfield and the towns of Lee and Lenox. There is limited sediment removal and capping targeted behind the Glendale Dam in Stockbridge. In addition, approximately 12 to 15 years after the Final Permit Modification becomes effective, there is scheduled excavation and capping in the impoundment behind the Rising Pond Dam in the village of Housatonic, town of Great Barrington.

The Final Permit Modification becomes effective in 30 days unless a party petitions for review of the decision with EPA's Environmental Appeals Board. If a party wishes to appeal this Final Permit Modification to the EAB, please refer to the 40 C.F.R. Part 124 regulations and to materials on the website of the Environmental Appeals Board (www.epa.gov/eab) for information concerning procedural and substantive requirements applicable to permit appeals.

More Information:

- The Final Administrative Decision of General Electric's Dispute of EPA's Intended Final Decision on Housatonic Rest of River: www.semsspub.epa.gov/src/document/01/593967
- For information regarding the Environmental Appeals Board process please visit: www.epa.gov/eab
- The Final Permit Modification (final cleanup plan) can be found at: www.semsspub.epa.gov/src/document/01/593921
- The response to public comments on the Draft Permit Modification can be found at: www.semsspub.epa.gov/src/document/01/593922
- The June 2014 Statement of Basis for EPA's Proposed Remedial Action for the Housatonic River "Rest of River" can be found at: www.semsspub.epa.gov/src/document/01/558621
- For more information on the Housatonic River site please visit: www.epa.gov/ge-housatonic
- The next Citizen's Coordinating Council (CCC) Meeting will be held on November 9, 2016 at the Lenox Library Reading Room from 5:30-7:30 pm

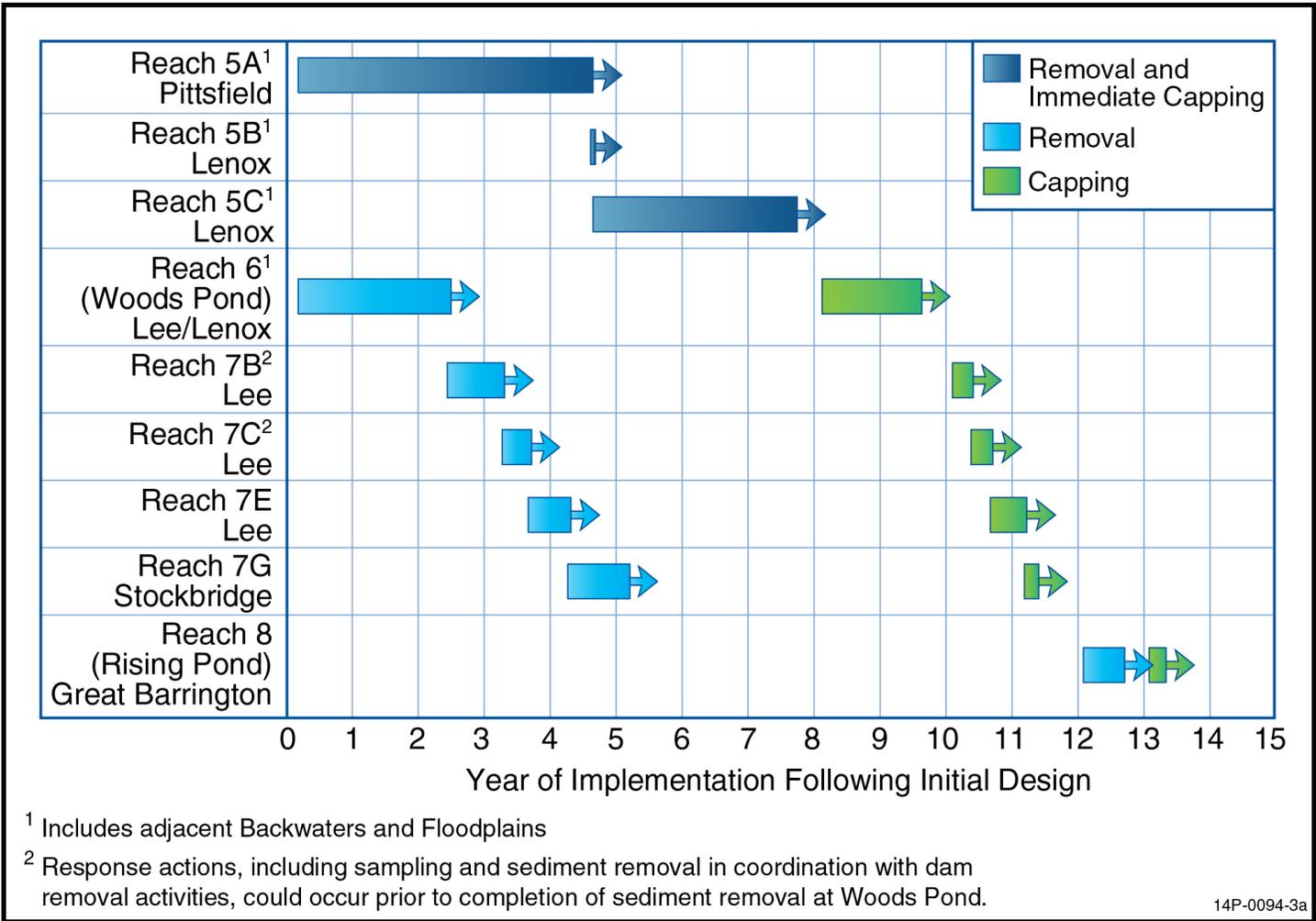


FIGURE 2 ESTIMATED TIMELINE TO IMPLEMENTATION OF CLEANUP GE-PITTSFIELD/HOUSATONIC RIVER SITE (REST OF RIVER)