

Comments presented to the Housatonic CCC November 18, 2015
Housatonic River Rest of the River plan as described in the intended GE RCRA
permit.

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This written version of comment is accompanied by a few [slides](#) and a [handout](#), both of which are available on the ESC, LLC website (estewards.com).

The permit that EPA released in October 2015 has no substantive changes from the Draft permit released on 2014. The Intended Permit has some new requirements for GE to conduct work on or related to downriver dams in MA and CT. The basic elements of active remediation in terms of removal and capping in the most contaminated part of the river and watershed remain unchanged from 2014.

In more than 20 years of working in the field of contaminated site remediation across the country, I have never before seen a “remedy” that was so limited in nature and extent. The proposed scheme stands out as so extremely little in the context of 1) how much contamination is removed or treated and the amount that remains; 2) the extent of active treatment in the way of real remedies at other major PCB sites across the nation; and 3) how straightforward a real remedial cleanup is for the Housatonic River. If this plan is implemented, the result will be continued poisoning of fish, wildlife and people in the Housatonic River and watershed for as long as anyone can project, including both EPA and GE.

Let me point out some of the serious problems with the scheme that is before us:

- Fish tissue contamination
- Insufficient active remediation
- Failure to address “core areas”
- Failure to acknowledge and incorporate habitat restoration

Fish tissue contamination is a problem now in the Housatonic River below Pittsfield in MA and CT. In Massachusetts the fish advisories are simply Don't Eat the Fish. In Connecticut, the advisories are in place through the length of the Housatonic for some species, including carp and brown bullhead.

In Massachusetts, no fish from the Housatonic are safe to eat and the EPA scheme makes false assumptions and sets the wrong standard for fish safety. The scheme indicates that PCBs in fish are predicted to decline to 1.5 ppm in 15 years, but the basis for predicting the decline is obscure. Presumably, EPA estimates a decline in PCBs in sediment and water in 15 years after the completion of the active construction phase of the plan. The problem is that fish lose PCBs from their tissues

quite slowly. It takes about 7 years for most fish to lose half of the PCB in their tissue. The biggest declines are likely to come when newly hatched fish are no longer exposed to PCBs and grow and develop in a river with much lower levels of PCBs. Furthermore, and most worrisome is that 1.5 ppm PCBs is not safe for any consumption, according to EPA guidance. ESC, LLC included this comment in the public record on the Draft permit in 2014.

New methods are available for removal and treatment of PCB contaminated soil and sediment, especially in the floodplains. One of the new methods has been field tested with success in Great Barrington and another was developed by NASA. I recognize that EPA has included activated carbon amendment in part of the plan and has left the door open to even more alternative treatments. My comment is not to say that EPA omits alternative methods, but rather to note that using these alternatives makes a more comprehensive remedy easier, more effective and cheaper.

Contamination left in place will wash away and increase exposure as the river meanders and changes course, a process that cannot be prevented, and that no one would want to prevent. Housatonic River in Reach 5, as well as in other parts, is a meandering river. Riverbanks will erode and wash away with the daily, seasonal and annual flow. When the high flows bring rushing waters and more erosion, these same waters will carry PCBs into the trophic system to poison fish and volatilize into the air. Any part of the proposed plan to address PCBs via leaving contamination in the riverbanks and backwaters, even with rip rap hardening will fail one day from natural processes.

Restoration of the Housatonic River, the riverbanks, backwaters and floodplain is both practical and available. I note that an entire scientific field addresses these exact situations – the field of restoration ecology. The Natural Resource Trustees for this site, in fact, rely on restoration specialists and monitor the progress of restoration projects. The “core areas” in Reach 5 are shown in the first of the slides I present to you. Two characteristics to note are that the ecotypes in these areas are known to local experts, including in both Massachusetts and Connecticut, as well as universities and native plant organizations in other regions. The nine plant species listed in the Draft Permit and Intended Final Permit as too important to permit a full clean up are depicted in the second slide. All but one of these plant species can be obtained from existing facilities at present. Bur oak is common in other areas of the New England region. And three sources of these plants explain that the ninth species, Tuckerman’s Sedge, could be cultured from seeds obtained from existing plants, by one of the Natural Heritage programs that has permits to collect and culture these plants. It turns out that neither the plants nor the habitats are an impediment to a more comprehensive remedial plan in terms of restoration.

Removal is straightforward and effective, as implemented at other CERCLA sites around the nation and depicted in the third slide. At the nearby Hudson River PCB Superfund Site, an estimated 65% of the PCB contamination was removed by GE. The other sites also provide examples in which substantially more than half the PCB contamination was or will be removed. The Lower Duwamish River in Seattle is included even though the remedy has not yet been implemented, and this site stands out as a notable comparison to the Housatonic because of the scope and magnitude of action. Like the Housatonic, the remedial actions were conducted in phases, though on the Duwamish, these were early actions that removed "hot spots." On the Housatonic we saw removal in the first two miles. Each of these Superfund sites offers an example of the scope of the remedy in comparison to the scope of the site contamination. In no case did EPA approve or implement a remedy that left most of the contamination on site to re-contaminate the site for the foreseeable future. Removal is also effective in reducing the PCB contamination in fish, one of the target objectives for the remedial actions at this site.

In concluding, I note that there is simply no logical or scientific justification for leaving most of the PCB contamination in the rest of the Housatonic River to poison people, the environment and living resources for as long as anyone can predict. Nor has EPA, the state of Massachusetts or GE presented any scientific documentation to explain or justify leaving PCBs in the "core areas."

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