ATTACHMENT:
A SHORT HISTORY OF THE HOUSATONIC RIVER INITIATIVE, INC. (HRI):
FIGHTING FOR A FISHABLE, SWIMMABLE HOUSATONIC

HRI, a 501(c)(3) non-profit organization, was formed in 1992 to advocate for the cleanup of the Housatonic River and Silver Lake. Yet our connection to the PCB-contamination of Berkshire County predates our formation by several decades. Two members of our Board of Directors, Mr. Al Bertelli and Mr. Dave Gibbs, worked with PCBs at GE Power Transformer in Pittsfield, MA. Mr. Bertelli has suffered persistent skin rashes since his ongoing exposure to PCBs as a crane operator. Mr. Gibbs' Newell Street property abuts a GE parking lot which was remediated to remove PCB-filled barrels and contaminated soil and his house had/has significantly high levels of airborne PCBs. As DEP noted: "Elevated levels of PCBs in ambient air have been detected at the Newell Street Area **I** sites." (DEP Comments to Massachusetts Department of Public Health (MDPH), November 29, 1994. Page 5).
(http://public.dep.state.ma.us/fileviewer/DefaultScanned.aspx?documentid=154808.)

Many of us began attending meetings and commenting to the Massachusetts Department of Environmental Quality and Engineering (DEQE) in the early 1980s. Establishing HRI was a natural outgrowth of that ongoing participation. Over the years, HRI's Board of Directors have included a State Representative, the Chairman of the Massachusetts Department of Fisheries and Wildlife (DFW), educators, sportsmen and women, and environmentalists. Many of HRI's members are individuals and families who have been negatively impacted by actions taken by GE and have been directly impacted by the actions/inactions of both the state and federal environmental agencies.

Because HRI represents such a broad alliance - duck-hunters, former GE workers, river advocates, Pittsfield residents whose property was contaminated and property-owners along the Rest of River – many local Boards of Selectmen have relied on HRI to keep them informed of Agency activities. DEP has recognized HRI "as a primary citizens advisory group for these sites" suggesting that "interested citizens and other parties are encouraged to join forces under the HRI umbrella." (Revised Public Involvement Plan for the Housatonic River and the General Electric Company Pittsfield Disposal Sites, prepared by Massachusetts Department of Environmental Protection, April 1995, Pg. 66.)

We have an extensive several decades-long record of commenting on every important decision regarding the River, Regrettably, GE has employed deceit, denial, obfuscation, and delay when it comes to assuming responsibility for its misuse of PCBs in Pittsfield. This policy began with GE's decision not to inform its employees about the dangers of working with PCBs, then knowingly allowing its toxic PCB-contaminated oil to migrate from its industrial facility to adjacent neighborhoods, to Silver Lake and the Housatonic River, and knowingly transporting PCB-contaminated Fullers Earth and other PCB-contaminated waste throughout Berkshire County.

(See Dr. Louis Schwartz, "Skin Hazards in American Industry Part II": No. 229 Public Health Bulletin, U.S. Treasury Department, Public Health Service (September, 1936) and Cecil Drinker, “The Problem of Possible Systemic Effects From Certain Chlorinated Hydrocarbons,” The Journal of Industrial Hygiene and Toxicology Vol. 19 (September 1937), pp. 283-311).

This lack of complete information has unfortunately contributed to some of unfortunate decisions made by the environmental agencies empowered to represent us. These mistakes began with the first Consent Decree signed by DEP and EPA in 1981 and the decision to list this site under RCRA and not CERCLA, and continued with the tacit acceptance of GE's highly inaccurate delineation of the extent of PCB-contamination.

GE's 1982 Stewart Report erroneously claimed that there were a total of 40,000 pounds of PCBs in the entire Housatonic River system in Massachusetts. This estimate was routinely accepted by state and federal agencies and shaped the discussion of the PCB-contamination of the Housatonic. For many years this faulty analysis impeded the regulatory agencies and the public's appreciation of the full extent and range of the contamination. It delayed the regulatory agencies from taking the necessary steps to mitigate the many risks the community faced.

EPA relied on GE's Stewart Report for its initial 1988 RCRA Site Assessment: "In December 1982, the Housatonic River study, performed by Stewart Laboratories for GE, documented that approximately 40,000 pounds of PCBs were contained in the river sediments in Massachusetts, comprising more than 250,000 cubic yards of contaminated sediment ... The PCB levels in sediments ranged from less than 1 to 210 ppm (dry weight) and appeared to be confined to the upper 12 inches of the sediment." (RCRA Site Assessment, III-29).

It wasn't until 1992 when HRI Board Member Mickey Friedman provided video testimony from Mr. Ed Bates, former Manager of Tests at GE Power Transformer and his assistant Mr. Charles Fessenden, Supervisor of Calculations, that the community learned that, due to daily spillage and loss at Power Transformer, at least a million and a half pounds of PCBs had gone down the drain. This PCB-contaminated oil formed a large underground lake under East Street, then made its way into the Housatonic River. (You can see this testimony, and get a better sense of how all these issues have affected Berkshire County, by watching Mickey Friedman's documentary film, "Good Things To Life: GE, PCBs, and Our Town" on YouTube: https://www.youtube.com/watch?v=ACN6CpMqt1w)

Based on Mr. Bates' testimony, HRI continually urged DEP and EPA to institute an independent testing regime to more adequately determine the range and extent of PCB-contamination in the Housatonic River, and to conduct a more thorough review of GE's sampling protocol. Nevertheless, the Agencies resisted our efforts from 1992 to 1996. As a result of HRI's continuing advocacy, in 1996 EPA undertook independent sampling.

This new sampling regime revealed large areas of previously undiscovered contamination. Unfortunately testing hasn't ever been as rigorous as HRI would have liked. As DEP noted: "Dioxins have also been found at the site but have not come to the forefront of the contamination issue. No PCB congener analyses have been conducted, however, according to DEP and EPA, the "dioxin-like" PCB congeners are present in fish. One obstacle is the cost of congener analyses (they can be as high as $600 to $1,000 for a soil or sediment sample). ("Discussion on the Public Health Activities at the Pittsfield Site/Housatonic River Area, Pittsfield, MA, December 1, 1997, ATSDR, EPA, MDEP, MDPH, Page 3).
(http://public.dep.state.ma.us/fileviewer/DefaultScanned.aspx?documentid=154808)

HRI believes GE's misrepresentations from the onset of this process violated its responsibilities under RCRA and under the 1981 Consent Agreement to disclose all past releases and its decades-long policy of dumping PCB contaminated waste throughout the County. Regrettably the public, HRI and the regulatory agencies have been hampered by this misinformation.

As a result of our advocacy, more former GE employees and local haulers and truckers came forward to tell HRI how and where they had transported and dumped GE-contaminated materials throughout the Lakewood neighborhood and beyond. We immediately alerted the DEP. We were quickly told this information couldn't be true. Then many homeowners revealed that they had taken advantage of GE's in-house fill giveaway program. And some homeowners produced the legal papers GE had required them to sign, attesting that they were receiving "clean fill" from the company while waiving their rights to hold GE liable.

We believe this behavior also represents a clear violation of the 1981 Consent Agreement. Thankfully at HRI's insistence, an anonymous 800 telephone number was established and both independently contracted truckers and former GE employees shared their secrets with the environmental agencies.

Without a true appreciation of the danger to human health, homeowners and their children played for years in their backyards made up of contaminated fill. PCBs levels reached as high as 20,600 ppm at the surface, with levels as high as 44,000 ppm at depth. 255 properties had levels above 2 ppm, and ultimately 180 properties were remediated. Children played in the Dorothy Amos playground and the Allendale Schoolyard and the Gerald S. Doyle softball complex, all built on contaminated fill. People walked and played on the contaminated soils of the Housatonic River banks, and many including the native peoples along the Connecticut portion of the Housatonic unknowingly ate PCB-contaminated fish, turtles, frogs, and waterfowl.
Re the Allendale School: (https://www.epa.gov/ge-housatonic/allendale-school-ge-pittsfieldhousatonic-river-site).
Re the contaminated residential fill properties: "Management of PCBs Under the MCP" March 28, 2013, Massachusetts Department of Environmental Protection:
(https://lspa.memberclicks.net/assets/CourseDocs/06_tor_pcblspacourseuploadmassdep.pdf)

As a result of the decisions EPA made as it negotiated the 2000 Consent Decree for the cleanup of first 2 Miles of the River, we face today the possibility of another massive PCB dump in the tourism-reliant South Berkshire County communities of Lenox, Lee, and Great Barrington. Rather than mandate treatment and the use of alternative remedial technologies in the 2 Miles, or barring that, insisting that GE transport all contaminated river bank soils and sediments to a secure out-of-state TSCA facility, EPA allowed GE to add significant volumes of PCB-contaminated sediment and soil to GE's existing unlined 30 acre Hill 78 dump and the newly constructed, lined Building 71 OPCA in Pittsfield, directly across the street from the Allendale Elementary School.

According to ATSDR's 2003's "Public Health Assessment General Electric Site - Hill 78 Area," "Concentrations range as high as 105 ppm in surface soil in the landfill area and 840 ppm in the other unpaved site areas outside of the landfill. While there is no present contact with subsurface soils, PCB concentrations are very high in some areas (i.e., 47,385 ppm in the landfill area and 18,741 ppm beneath the other unpaved areas). (Page 8.)
(http://www.atsdr.cdc.gov/HAC/pha/GE-HillArea78/GE-HillArea78pha093003.pdf)

It is the precedents of the Hill 78 and Building 71 landfills that GE cites as a primary reason for one of its claims that Region 1's Final Remedy is "arbitrary and capricious," arguing it should not be forced to unnecessarily spend an additional $250 million to transport Rest of River PCB contaminated sediment and soil by rail out-of-state when it can safely dispose of it in more convenient local landfills. Landfills which GE notes are: "EPA's "presumptive remedy" for the disposal of PCB- contaminated sediment and soil, which it has approved and implemented at many other sites across the United States, including in Pittsfield and other locations in Massachusetts." (Dispute of EPA's Intended Final Decision Selecting Rest of River Remedy Submission of GE's Statement of Position" January 19, 2016, Pages 1 - 2).
(https://semspub.epa.gov/work/01/586218.pdf).

As for the Housatonic River, it was only when GE performed the Building 68 Removal Action on a 550-foot section of bank soil and river sediment, that HRI and the public had demonstrable evidence of the great inadequacy of the Stewart Report: "If GE's estimated average concentration of 1,550 parts per million for the sediments in the hot spot is even close, then at least 10 tons of pure PCBs were removed from the river bed off Building 68. That would represent more than half of the 39,000 pounds a GE consultant estimated was in the Housatonic River sediments above the Connecticut border in 1983." (The Berkshire Eagle, December 16, 1997). Not only was the extent of contamination obscured, but the Stewart Report underestimated by an extraordinary degree the toxicity of the PCB-contamination.

With the release of its 2014 Proposed Remedial Action for the Rest of River and its Comparison of Combination Alternatives, EPA has finally offered the public estimates of the total range of PCB contaminated sediment and soils that might be removed during the remediation of the Rest of River - from 0 to 2,902,00 cy - ranging from Combination 6, HRI's preferred option, which would remove 94,100 pounds of PCBs to Combination 1, GE's preferred option which would remove 0 pounds and Combination 9, EPA's preferred option which would remove 46,970 pounds. (GE-Housatonic River, Statement of Basis for EPA's Proposed Remedial Action (RA) for the Housatonic River "Rest of River", 06-01-2014, SDMS #558621, Table 2, Page 21. (https://semspub.epa.gov/work/01/558621.pdf).

But, significantly, HRI and the public have never been offered a comprehensive assessment of the total amount of PCB contaminated sediment and bank soil that still exists throughout the entire river system. And EPA neglects to estimate how many pounds of PCB-contaminated riverbank soil and river sediment will remain in the Rest of River following its Remedy, a figure highly relevant to any rigorous and comprehensive examination of remediation strategies. An assessment that would obviously prove critical when it comes time to analyze the success/failure of the eventual remediation.

We share this history to remind you that even as we have invested decades and an enormous amount of energy trying to restore public health and the environment, the citizens of Berkshire County have been at a grave disadvantage throughout this process. Our sensible suggestions have often been ignored.

For example, in our July 15, 1994 comments to Ms. Lyn Cutler of DEP and Mr. Bryan Olson of EPA regarding GE's Proposal for the Preliminary Investigation of Corrective Measures (PICM) for Housatonic River and Silver Lake Sediment, we first declared our official request for an EPA-mandated and controlled pilot study for treatment technologies, a pilot study other than GE's Woods Pond Bioremediation Evaluation and Test Station (BETS): "We are firm in our commitment that the identification, consideration, testing and evaluation of alternative treatment/disposal technologies and removal technologies must address the complete challenge we face ... Only if we tackle this great problem in a systemic, unified way will we stand a chance of performing a truly effective clean-up ... We do not believe the PICM effectively incorporates pilot or research studies for ex-situ treatment/disposal technologies. And GE's analysis of at least one of the treatment technologies indicates the lack of the kind of open mind and creative spirit that will be needed to make this clean-up a success." (HRI comments PICM, Page 2) (For description of GE BETS program, see GE PICM, Pages 2-7 to 2-11). (http://public.dep.state.ma.us/fileviewer/DefaultScanned.aspx?documentid=155351)

HRI challenged GE's claim that Natural Recovery was responsible for "an overall declining trend in PCB levels in certain fish species in Massachusetts and, in some cases, Connecticut (Academy of Natural Sciences of Philadelphia 1991; BBL 1991). One possible explanation for this observed decrease in PCB levels in select species is a reduction in exposure of fish to PCB-containing sediments by the covering of PCB-containing sediments with cleaner sediments." (GE PICM, 2-11).

As HRI stated in 1994: "**There is no scientifically justifiable reason at this date to believe that "natural recovery" is a viable remediation strategy to achieve a permanent cleanup at the site.**" (HRI comments PICM, Page 13, Emphasis added).

Twenty-two years later, with fish and duck advisories seemingly necessary in perpetuity, with the need to remediate the 2 Miles, and now the Rest of River, how successful has Natural Recovery been? As for GE's claim that PCB levels in fish were declining, ATSDR noted: "Data on PCBs in fish tissue collected since 1982 (Table 19) support the need to continue this advisory and strengthen the advisory for tributaries of the Housatonic River ... **The available data indicate that PCB contamination of the fish tissues has remained consistently elevated over time. In fact, the highest PCB concentrations in largemouth bass from Reach 5 were detected in the most recent sampling effort (2002).** Therefore, present and future opportunities for exposures to PCBs in fish tissue are likely. In the past, before the MDPH advisory, opportunities for exposure to PCBs in fish from the Housatonic River were probably higher." (2008 ATSDR MA DPH Health Assessment for the General Electric Site, Page 14, Emphasis added).
(http://www.atsdr.cdc.gov/HAC/pha/GESite-HousatonicRiver/G.E. Housatonic River SiteFinalPHA082508.doc.pdf)

So in what ways have GE, DEP and EPA definitively demonstrated the successful reduction of PCB-contaminated soils and sediments to safe levels with natural processes?

HRI was glad that EPA and GE agreed to remove significant amounts of PCBs from the first 1/2 Mile, then the next 1 1/2 Mile but we had serious concerns with the 2000 Consent Decree. As we noted, a special concern was EPA's decision to allow GE to dump contaminated river sediments and bank soils across the street from the Allendale School in the Hill 78 and Building 71 landfills in Pittsfield. We intervened in Federal District Court to express our opposition to the Consent Decree, then after negotiation agreed to withdraw any continuing legal opposition in return for a promise from Region 1 Administrator Mindy Lubber to seriously consider alternative remedial technologies for the Rest of River Remedy, including providing a rigorous pilot project. (Mindy Lubber's acceptance is chronicled in the film "Good Things To Life.")

Additionally, as we noted in our Motion to Intervene, HRI believed then and still believes that the remediation of the Housatonic River provides the perfect opportunity to put into practice the recommendations of CERCLA Section 9621(b), General rules for cleanup standards:
"(1) **Remedial actions in which treatment which permanently and significantly reduces the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants is a principal element, are to be preferred over remedial actions not involving such treatment. The offsite transport and disposal of hazardous substances or contaminated materials without such treatment should be the least favored alternative remedial action where practicable treatment technologies are available.**

"The President shall conduct an assessment of permanent solutions and alternative treatment technologies or resource recovery technologies that, in whole or in part, will result in a permanent and significant decrease in the toxicity, mobility, or volume of the hazardous substance, pollutant, or containment. In making such assessment, the President shall specifically address the long-term effectiveness of various alternatives.
"In assessing alternative remedies, the President shall, at a minimum, take into account:
(A**) the long-term uncertainties associated with land disposal**;
(B) the goals, objectives, and requirements of the Solid Waste Disposal Act (42 U.S.C 6901 et seq.);
(C) the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous substances and their constituents;
(D) short and long-term potential for adverse health effects from human exposure;
(E) long-term maintenance costs;
(F) the potential for future remedial costs if the alternate remediate action were to fail; and
(G) the potential threat to human health and the environment associated with excavation, transportation, and redisposal, or containment.
"The President shall select a remedial action that is protective of human health and the environment, that is cost effective, **and that utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to maximum extent practicable.** If the President selects a remedial action not appropriate for a preference under this subsection, the President shall publish an explanation as to why a remedial action involving such reductions was not selected.
"(2) The President may select an alternative remedial action meeting the objectives of this subsection whether or not such action has been achieved in practice at any other facility or site that has similar characteristics. In making such a selection, the President may take into account the degree of support for such remedial action by parties interested in such site." (42 USC 9621(b)) (Emphasis added.)

HRI's goal from the very beginning has been to provide our children with a fishable, swimmable Housatonic River. Because of that commitment, HRI has fought for the removal of all contaminants from the river system, the remedy most protective of human health and the environment. Because of that commitment HRI has steadfastly fought for the use of alternative remedial technologies, and opposed landfilling. Treatment is the only safe and permanent solution to our PCB problem.

Sadly, EPA hasn't kept its promise to provide a pilot test for alternative remedial technologies in the Housatonic. It is critical that such a demonstration of the most promising alternative remedial technologies be performed in the Rest of River before any final remediation decision is made. If not, HRI and the citizens of Berkshire County and our extraordinary wildlife will continue to pay an extraordinary and unbearable price for that failure.