HOUSATONIC RIVER INITIATIVE
Box 321 Lenoxdale, MA 01242
TEL: 413-446-2520

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EPA National Remedy Review Board
c/o Bob Cianciarulo
EPA New England
5 Post Office Square, Suite 100 (OSRR-07-1)
Boston, MA 02109-3912

Dear National Remedy Review Board,

On behalf of the Housatonic River Initiative (HRI) and community members of the greater Housatonic water shed in Massachusetts, we appreciate the opportunity to provide our perspective and comments on the plans for cleaning up the PCB contamination of the Housatonic River. HRI has participated in this process from the very beginning, bringing all the expertise and on-the-ground experience, history and knowledge of an engaged and involved citizenry.

An effective remedial alternative selected to address contamination at the GE/ Housatonic River site must acknowledge that PCBs are a real and continual threat to human and ecological health. Based on GE proposals and text in the *Housatonic River – Rest of River Revised Corrective Measures Study Report* (CMS), it seems that GE continues to deny the scientific evidence that PCBs cause cancer and other adverse health effects in humans, or that PCBs cause any harm to ecosystems and ecological receptors. The CMS does not cite independent scientific research, but instead relies on the work GE scientists or scientists funded by GE. The international scientific community long ago recognized the dangers and toxicity of PCBs, and current literature continues to recognize PCB exposure related health hazards.

PCB Impacts on Human and Ecological Health

The scientific community and regulatory agencies have long recognized the dangers to human health and the environment from PCB exposures. GE continues to assert that PCB toxicity is in question or that health and environmental impacts from PCB exposures in the Housatonic watershed are minimal or absent. The communities reject the GE claim and count on EPA to do the same.

According to the Department of Health and Human Services (DHHS), EPA, and the International Agency for Research on Cancer (IARC) PCBs are probable human carcinogens (*Environ. Sci. Technol.*, 2010, 44 (8), pp 2749–2751). Humans exposed to PCBs have an increased risk of developing cancers like non-Hodgkins lymphoma (http://www.atsdr.cdc.gov/DT/pcb007.html). PCBs also cause non-cancer health effects, such as reduced ability to fight infections, low birth weights, and learning problems (http://www.epa.gov/hudson/humanhealth.htm). PCBs have been classified as endocrine disruptors (EDs), which are defined as “exogenous agents that interfere with the synthesis, secretion, transport, metabolism, binding, action, or elimination of natural blood born hormones that are present in the body and that are responsible for homeostasis, reproduction, and developmental processes” (*Risk Analysis*, 1996, 16(6), pp. 731-739). Adverse health effects include liver damage, skin irritation (chloracne), reproductive dysfunction, and cancer (Rahuman et al., Destruction Technologies for Polychlorinated Biphenyls, 2000). Research has shown that babies born to mothers with high levels of PCB contamination show abnormal behaviors such as problems with motor skills and a decrease in short-term memory (*Tox. and Indus. Heal., 2001,* 16(7-8), pp. 305-333). A 1996 study found that, “a slightly higher than average intrauterine exposure to PCBs may cause deficient, reduced, or lowered fetal and postnatal growth, retarded psychoneurological development, and reduced cognitive ability” (*The New Eng. J. of Med.,* 1996, 335(11), pp. 783-789).

Effects of PCBs in animals include changes in the immune system, behavioral alterations, and impaired reproduction. PCB exposure may also affect hormonal functions in animals, causing numerous problems, including complications in development and sexual differentiation (*Neuroendocrinology*, Feb. 2011, 152(2), pp. 581-594). According to the EPA, the “Rest of the River” region of the Housatonic River is one on the most biologically diverse regions in all of New England. The region contains five different types of forest communities and is home to more endangered and threatened species than most other bioregions in Massachusetts or Connecticut (USEPA, Eco. Risk Assess. Fact Sheet “Rest of River,” 2003). Therefore it is of greatest importance to protect these sensitive areas through a comprehensive cleanup effort, which effectively removes the threat of PCB exposure on endemic species. A thorough remediation plan must recognize the dire human and ecological health problems associated with lingering PCB contamination.

Ten Principles for a Better River Clean Up

The Housatonic River Initiative promotes a list of ten principles created by the Housatonic Clean River Coalition, which, if recognized by EPA, GE and affected communities, will help produce a comprehensive and collaborative cleanup effort. The principles, which are listed and described within this letter, express our remediation priorities and favored planning methodologies. We feel that an open and communicative remediation process will ultimately produce the most satisfactory option, leaving the Housatonic River as a restored, functional, and aesthetically beautiful environment.

Principle 1: Long-term health and environmental goals for the project should be described clearly and simply at the beginning of the clean-up

The communities along the Housatonic River have goals for the cleanup: fish that are safe to eat, waters and habitats safe for human use and supporting wildlife and a watershed that is vibrant. The citizens expect the PCB cleanup to be thorough, careful and comprehensive.

Remediation goals should be clearly presented in a form that allows for understanding among all of the concerned parties, including affected community members. Additionally, language describing remedial options or technologies should be clearly stated.

Incomplete remedial alternative descriptions and language ambiguities should be remedied before choosing an appropriate cleanup option. As an example, the *Housatonic River – Rest of River Revised Corrective Measures Study Report* (Oct. 2010) lacks a site-specific description of the processes involved in the monitored natural recovery (MNR) option. The CMS repeatedly refers to MNR as a viable option, but does not specify the natural processes upon which this option relies. An MNR remediation method's success depends upon a variety of factors, such as the specific molecular structure of the PCBs present, the abundance and type of microorganisms present, the amount of sunlight reaching the affected area, temperature, and available nutrients. The CMS does not effectively account for any of these factors or explain particular MNR methods and mechanisms. The MNR description also fails to specify what impact the method will have on PCB bioavailability or toxicity. Without a full method description, the likelihood of a method's remedial success cannot be reasonably projected or supported.

Principle 2: Areas of contamination should be attacked a few at a time in phases rather than all at once

The Housatonic River Initiative supports an adaptive management approach to the GE/Housatonic River Site remediation. An adaptive management approach should address the site as a series of unique ecosystems. The overall remediation effort will continually be modified as new information is gained from small-scale efforts. A large-scale cleanup approach fails to recognize the different remediation needs of sensitive ecosystems. Ecosystem characteristics such as species assemblages, habitat areas, and hydrology need to be considered to produce the most effective and low-impact cleanup solution.

Principle 3: Each phase should include pilot projects to test new technologies

To create a tailored and comprehensive plan, small-scale pilot projects should be conducted to assess the effectiveness and appropriateness of emerging remediation technologies. HRI and community members support a cleanup option that will effectively remove contaminated sediment altogether where feasible. Therefore, technologies that remove contaminated sediment/ soil through the least intrusive and most cost-effective methods will, in most areas of the site, be the favored remedial methods. Additional methods that treat contaminated sediment/ soil without requiring removal should be considered as well, to be used in areas where sediment/ soil removal is not a feasible or appropriate method.

Listed below are some technologies or methods that we feel should be considered for testing on a small-scale preliminary basis and further considered for implementation as part of a remedial option. Additionally, potentially applicable new technologies/ methods should be continually considered for remedial use.

Genesis Rapid Dewatering System

The Genesis Rapid Dewatering System (RDS) should be considered for use as part of the site remediation where appropriate as an alternative to traditional dredging operations. Like traditional dredging operations, the RDS process actively removes contaminated sediment from hydraulically dredged areas. The RDS, however, includes a unique four-stage rapid dewatering process, which removes contaminants (PCBs & heavy metals are isolated/contained in fines) and significantly reduces nutrient (phosphorous & nitrogen) volume while leaving no residual polymer toxicity issues. The process quickly processes river water and sediment, removing and preparing sediment and solid materials for disposal or reuse. The resulting effluent is returned to the waterway, meeting or exceeding all regulatory requirements at trace to < 20 mg/l tss and < 30 NTU.

The RDS has the potential to work quickly (processing 2000 to over 5000 gallons of water per minute) and relatively quietly, while occupying an area of 150’ x 150’. The RDS method is less intrusive than traditional dredging because it works more quickly and requires less area, therefore inflicting a lesser impact on the natural landscape. Additionally, the Genesis RDS is able to sustain a 1:1 (dredge time to dewatering time) operating ratio with a dredging operation allowing for projects to be completed in 1/3 of the time required by other dewatering processes. The portability and operating ration allow operational costs of the Genesis system to run 30% to 50% less than traditional dewatering techniques. The RDS has been successfully implemented as part of the Santa Cruz Inner Harbor restoration project, and has been acclaimed by several clients such as Black and Veatch, the Port District of Santa Cruz, Halcrow, and TKW Consulting Engineers.

BioTech Restorations Biotechnology

BioTech Restorations’ biotechnology remediation method, coupled with soil removal, should be considered as a technology to address contaminated floodplain areas. Additionally, the method should be considered for use in floodplain areas where soil removal is not feasible or appropriate. The technology is a low cost bioremediation method which can be implemented to breakdown persistent organic chemical pollutants into innocuous by-products, such as salt, carbon dioxide, and water. The treatment is effective in breaking down contaminants which are usually immune to bacterial breakdown, such as PCBs, pesticides, dioxins, and petroleum hydrocarbons. Biotech Restorations’ method entails a treatment application to polluted soils which stimulates the “indigenous bacteria’s capacity to produce the enzymes necessary to reduce the target compounds to component organic carbon” (biotechrestorations.com).

The treatment has been applied at a variety of sites, and in every case the cost was at least 30% less than previously proposed remediation methods. In all cases, this biotechnology has ensured that treated sites have reached mandated cleanup goals. In a 2005 California Environmental Protection Agency press release, the California Department of Toxic Substances Control (DTSC) announced the successful completion of the Borello Property in Morgan Hill remediation. The site was formerly used as an apricot and cherry orchard, and was left polluted by elevated levels of pesticides, including toxaphene and dieldrin. The site cleanup included an application of the BioTech Restorations’ bioremediation technology “that enabled cleanup to residential standards within two months at a relatively low cost.” After remediation, the site received an “unrestricted use” certification, which is the CA DTSC’s most health-protective standard and which allows for future residential use of the site (CAEPA Press Release 10/31/05). More examples of the efficiency of decontamination using this method can be seen in Table 1. Because of its proven remediation success and cost-effectiveness, HRI encourages and supports the use BioTech Restorations’ biotechnology in floodplain areas in conjunction with soil excavation or in areas where soil excavation is not appropriate.

Table 1. Illustrates the results of the four Factor Treatment tests. Each test involved a single Factor Treatment incorporated into the test soil as a dry powder (http://www.geosolve-inc.com/biotech.html).

Property	Target	Initial Level	Final Level	Time Period	% Reduction
Hercules Chemical / aerobic/anaerobic	Toxaphene	5,000 ppm	Non Detect	23 weeks	100
Amtrak / aerobic	PCB / 1260	860 ppm	<20 ppm	24 weeks	98
Columbia Power anaerobic	PCB / 1254	200 ppm	<10 ppm	12 weeks	95
Tyndall AFB / aerobic	PCB /1260	5 ppm	< 0.4 ppm	8 weeks	92
Borello Property/aerobic	Toxaphene Dieldrin	6 ppm	<0.017 ppm	4 weeks	99
Milpitas Site/aerobic	PCBs (1254/1260)	156 ppm	<0.5 ppm	60 weeks	99
Mantegani Property	Dieldrin/DDT/DDE	9 ppm	0.1 ppm	28 weeks	97

Activated Carbon

Activated carbon should be given strong consideration as an amendment to other remedial options addressing contaminated sediment (i.e., dredging, capping) as an alternative remediation strategy in areas where sediment removal is not feasible or appropriate. HRI suggests that contaminated sediment, otherwise left to monitored natural recovery, be treated with activated carbon. Additionally, HRI supports “capping with an active barrier” (combining capping with activated carbon treatment). The supposed effect of activated carbon is “that adsorption of contaminants to the active material will significantly reduce the contaminant transport from the capped sediment" (*Chemosphere*, Apr. 2008, 71(9), pp. 1629-1638). PCBs and heavy metals bind to activated carbon, reducing the amount of PCBs and heavy metals available for biological uptake (*Environ. Sci. Technol.*, 2009, 43(10), pp. 3815-3823).

The effectiveness of activated carbon's ability to reduce PCB availability was tested in the shipyard at Hunters Point in San Francisco. The area is a Superfund site that is contaminated with PCBs from the shipyard landfill. It was found that clams located in areas treated with activated carbon contained lower amounts of PCBs than clams located in untreated areas. Efficacy of activated carbon treatment was found to increase with both increasing carbon dose and decreasing carbon particle size. Average reductions in bioaccumulation of 22%, 64% and 84% relative to untreated Hunters Point sediment were observed for carbon amendments of 0.34%, 1.7% and 3.4%, respectively. Average bioaccumulation reductions of 41%, 73% and 89% were observed for amendments (dose = 1.7% dry wt) with carbon particles of 180 to 250 µm, 75 to 180 µm, and 25 to 75 µm, respectively, in diameter. The present results demonstrate that adding activated carbon to sediment from Hunters Point can reduce PCB uptake in clams by almost one order of magnitude (*Environ. Tox. & Chem.,* 2007 26(5), pp. 980-987).

The cost of activated is relatively cheap. 5% AC by dry wt in the top 4" equals six lb/sq. yd or 30,000 lb/acre. This amount is equivalent to 2 mm sedimentation. The material cost for AC is currently at $1/lb. Therefore one acre of AC will cost $30,000. The application cost will depend on the method utilized. Additional application of small increments over multiple years to incorporate into new annually deposited sediments will help ensure further efficiency for long term remediation. The use of activated carbon reduces the amount of offsite disposal, which also accounts a reduced cost (Environmental Security Technology Certification Program, Stanford University, 12/5/05).

Overall, activated carbon appears to be a high-quality remedial alternative that is also cost-effective. The use of activated carbon has shown to significantly reduce the bioavailability of PCBs, which is one of the primary concerns associated with PCB pollution. Dredging followed by backfilling with activated carbon mixed with clean sediment would provide an effective strategy, removing the sediment with the highest concentrations as well as adsorbing any PCBs not removed during dredging.

Phytoremediation

Where appropriate, phytoremediation should be considered as a remediation technique in lower polluted floodplains soils. Phytoremediation has been investigated and is currently being used in the field for a variety of organic and inorganic pollutants. Phytoremediation is the use of plants and its related enzymes to decontaminate soil, groundwater, air, sediments, and surface water by extracting and breaking down contaminants while supporting and using native bacteria (Russell. The Use and Effectiveness of Phytoremediation to Treat Persistent Organic Pollutants, 2005). An established rooted vegetation has the ability to stabilize soil thereby preventing wind erosion and adsorption of contaminants to soil that transports into water streams (EPA/540/S-01/500, 2001). Phytoremediation is most suitable for remediating sites or portions of sites with widespread, low-mid level contaminants that are often too expensive to remediate by traditional means. Plants have shown to decrease PCB soil concentrations by a few parts per million in a single harvest cycle in soils with low initial PCB concentrations (less than 5 ppm) (*J. of Hazard. Materials,* 2009*,* 172, pp. 1671-1676) and over 90 ppm in much higher initial soil concentrations (*Environ. Sci. and Poll. Research Int.*, 2009, 16(7), pp. 817-829).

Phytoremediation does not have the destructive impact on soil fertility and structure that some more vigorous conventional technologies may have, such as excavation followed by acid extraction, soil washing, and thermal desorption (*Int. J. Phytoremediation,* 1999, 1(2), pp. 115-123). Aggressive engineering methods such as excavation are suitable for areas with high concentrations (hot spots), but less-expensive containment and treatment technologies can be used for surrounding areas where contaminated levels are low. The costs for decontaminating a site with phytoremediation can be a fraction of the cost of traditional methods such as excavation followed by incineration or landfilling (EPA/540/S-01/500, 2001). Depending on the site, phytoremediation can be used alone or in conjunction with other remediation methods to help decrease the amount of contaminated dust in the air.

Phytoremediation may be used alone or with other technologies and when time is an important factor, excavation can be used with phytoremediation to restore the land and remediate areas excavation was not able to due to inaccessibility or cost reasons. In this case, phytoremediation will enhance MNR.

Based on available PCB phytoremediation research, pumpkin (*C. pepo cv Howden*), zucchini (*C. pepo cv Senator hybrid*), tall fescue (*F. arundinacea*), sedge (*C. normalis*), Squash (*C. pepo cv Goldrush*), and tobacco (*Nicotiana tabacum*) appear to be the top candidates for phytoremediation based on PCB uptake and concentrations within the plants. The cucurbits, tall fescue, and sedge showed consistency in having higher plant concentrations accumulation rates. Site-specific small scale pilot studies would be beneficial to understanding the potential applications of phytoremediation within the Housatonic floodplains, especially in areas that will not receive further remedial attention until a later time.

Stream Bank Restoration

Stream bank erosion increases the movement and deposition of sediments and, therefore, is a large source of pollution in many riverine environments (USGS. Water-Resources Investigations Report 99-4156, 2009). Some stream bank erosion naturally occurs as water flows. Human development and activities, however, have greatly increased natural erosion processes and necessitated the implementation of stream bank erosion controls. Because some stream bank erosion is naturally occurring, the erosion can never be completely eliminated. There are, though, a variety of methods that may be used to control and restore stream banks. A variety of factors, such as vegetation cover, topography, bank material, weather cycles, river morphology, channel stage, and watershed area should be considered during stream bank restoration efforts (*J. of the Amer. Water Resources Assoc*., 2006, 42, pp. 83-97).

Housatonic River channel stabilization could reduce pollutant loading into urban tributary streams and also balance the impact on the ecological system. Many traditional hard stream bank erosion control techniques rely on large quantities of riprap and/or concrete and steel structures (USGS. Water-Resources Investigations Report 99-4156, 2009). Although hard methods have proven effective in mitigating erosion, the unnatural materials used under these methods do not provide suitable habitats for fish and other riverine species (USGS. Water-Resources Investigations Report 99-4156, 2009). Other bank stabilization/restoration practices provide more natural solutions for combating stream bank erosion and sedimentation than harder methods.

Different bioengineered stabilization treatments may be used depending on the amount of erosion occurring in a particular section of a bank. Planting vegetation along the bank will usually suffice in areas that need less stabilization. Bendway Weirs, stream barbs, rock riffles, and stone toe protection are methods commonly used in areas that require more bank stabilization to reduce erosion. Bendway Weirs are low rock structures placed in a stream to direct water away from the bank to lessen stream impact on the bank (www.wq.uiuc.edu/Pubs/Streambank.pdf). This method has been highly effective and widely used by the US Army Corps of Engineers (USACE, 2010, Streambank stabilization and restoration studies). Stream barbs are similar to Bendway Weirs, but stream barbs are placed at a more severe upstream angle to more aggressively direct water away from the bank. Rock riffles reduce bank and stream bed erosion by creating a step-like structure which slows stream water velocity. Stone toe protection involves placing stones parallel to the bank. The stones provide protection to bank-stabilizing vegetation growth. Several treatment methods are commonly combined to provide the most effective treatment for stabilization (www.wq.uiuc.edu/Pubs/Streambank.pdf).

Bioengineered methods are often less expensive than hard methods. Riprap and concrete or steel structures generally cost between 50 to 300 dollars per foot, while bioengineered bank stabilization methods cost approximately 15 to 25 dollars per linear foot (www.wq.uiuc.edu/Pubs/Streambank.pdf). Generally, bioengineered methods also provide a more natural functioning ecosystem and a more aesthetically-pleasing landscape. Vegetation, which is almost always planted streamside as part of bioengineered erosion control treatments, provides shade, rebuilds a riparian buffer, regenerates a natural habitat, and is much more visually pleasing than large concrete structures (Sneeringer, B., 2001, The Narrows Stream Bank Restoration and Protection Project).

These more natural and innovative methods are being implemented with great success across the country and have been embraced by the Army Corps (USACE, 2010). Cost-effective bioengineered methods should be considered to reduce erosion and to return areas to more natural habitats in and around the Housatonic River.

Principle 4: Plans should be reviewed and revised at the end of each phase

An adaptive management plan calls for the constant review and revision of plans in order to incorporate relevant knowledge gained during the cleanup process. The community is fully aware of the difficulties faced at other sites where PCB contaminated sediments are under remediation. The Hudson River is one of the more well-known and problematic sites that face such issues. The contamination has occurred over a vast stretch of river (more than 130 miles) for many decades and with a documented plan that shows how the situation came to be. Thus, surprises and unexpected conditions will be the norm in the remediation. Therefore, the process must be reviewed and evaluated periodically and at each steep, to determine if the planned work is still the best remedy, to assess the availability of new methods and determine the effectiveness of recently completed remediation.

Principle 5: The community should have a formal and substantial role in planning each new phase

Throughout the site remediation process, EPA should provide the community with all available information about the site cleanup progress and new information gained from pilot-studies and small scale restoration efforts. Community members should be allowed sufficient comment periods on specific technical documents and on general and specific cleanup progress. Relevant data and access to a Technical Advisor should be kept available to community members to aid community understanding on the level of cleanup phase successes.

The EPA should continue to hold informative events, such as the Housatonic River Public Charrette, during which community members and the EPA are able to freely communicate and exchange ideas and feedback concerning the Housatonic River – Rest of River cleanup.

Principle 6: Planning for each phase should be guided by limits on environmental disruption and cost established at the beginning of the process

It is essential to protect sensitive habitats in regions containing high biological diversity and endangered/threatened species. An environmental impact statement should be included with all remedial strategies. The estimated cost should be included in order to choose a method that is effective in both clean up and cost.

Decision making regarding PCB contamination based on "cost effectiveness," must include the following issues to fully reflect true costs: the long term impact on the health of the community and the environment, the amount and nature of untreated PCBs and/or byproducts associated with their treatment/destruction, the economic loss to property owners and communities stigmatized by the presence of toxic waste, even if it is temporarily contained, the additional, potential liability faced by government and private industry if ongoing research reveals that current levels of protection are inadequate, and the long term monitoring and additional remedial measures that containment facilities may require.

Principle 7: A comprehensive health study should be conducted by an independent body, and the results of that study should influence planning and priorities

Rather than relying on data and analysis performed by GE or GE supported scientists, an independent body should conduct comprehensive human and ecological health studies. An independent body can present an unbiased, straightforward evaluation of health effects associated with contamination. A comprehensive site evaluation may also identify particular areas of concern. This information should be considered when establishing a remediation plan and identifying cleanup priorities.

Site, Source, and Waste Evaluation

Principle 8: The entire river, including areas downstream in Connecticut, should be evaluated for remediation in each phase

A more comprehensive site characterization is needed in the downstream areas located in Connecticut. HRI feels that sampling efforts in the Connecticut reaches are inadequate to provide a reflective site description. More site evaluation is necessary to determine full extent of PCB contamination and to identify contamination hot spots which may need immediate remedial attention.

Additionally, we feel that none of the remedial alternatives presented in the CMS sufficiently address PCB contamination in the Connecticut reaches. These areas are simply left to “natural recovery” or “monitored natural recovery.” As stated previously, these remedial options are not fully developed and do not describe the mechanisms on which their remedial success relies. Any proposal for less than active remediation in Connecticut must include a detailed set of measures for progress and criteria for continuing to not clean up the Connecticut portion of the river.

Fish studies conducted in the Connecticut reaches of the Housatonic River have revealed that stocked trout contained measurable levels of PCBs within two weeks after their introduction into the system. PCBs are present in Connecticut wildlife, but it remains that the fate and transport of PCBs has not been adequately studied. Even though ducks affected by PCB contamination in portions of the Housatonic within Massachusetts contain PCB levels over 200 times over the national tolerance limit, duck tissues in Connecticut remain untested (http://1.usa.gov/mrv0pt). A lack of site and wildlife sampling has left the Connecticut portion of the Housatonic River poorly characterized. Without a more thorough characterization, it is not possible to coordinate an acceptable cleanup effort.

The Connecticut reaches of the Housatonic River contain a number of dams, including the Stevenson Dam, the Lake Housatonic Dam, and the Bull’s Bridge Dam. The potential effects of remediation in the upstream river reaches have not been sufficiently addressed by any remedial alternatives. Remediating areas upstream will likely cause increased turbidity contributing to a buildup of sedimentation behind dams. Therefore, throughout cleanup efforts, contaminant levels should be monitored and adjustments to the processes should be made as needed. Sediment that has accumulated behind the dam may need to be removed or remediated otherwise.

Principle 9: Sources of continuing contamination of the river should be identified, evaluated, and remediated

Re-contamination is an issue that needs more attention. An exhaustive evaluation of potential contamination sources must be made. The sources will need to be addressed and remediated specifically. Source remediation should be a considerable effort within the larger remediation effort. If sources continue to pollute, the overall success of any remediation effort will be considerably compromised. One of the issues that the community has investigated at other sites, especially active Superfund sites, is the relationship between sources, source control and in-water remediation. We recognize that EPA is attentive to recontamination in remedial designs that proceed from up-river to down-river and address land based source control.

The community expects EPA to take the same approach here on the Housatonic and insist that PCB contamination sources from the plant site in Pittsfield are all identified and addressed. Stormwater discharges, leaching from silver lake and runoff from the plant all have to be addressed and the PCB sources eliminated.

Principle 10: If the EPA mandates dredging, lined, upland landfills should be utilized only as purely temporary measures

Any landfills constructed in the area should only be temporary and removed after the completion of the cleanup. Contaminated materials should be removed from the floodplain and upland areas to remove the threat of site recontamination and also to protect human and ecological health in the area. Constructing a landfill on Hill 78 is not at all acceptable, as this location lies within close proximity to an elementary school.

Similarly, any staging or temporary areas used during site remediation should be fully restored after the completion of that particular remediation phase. The community understands that the remediation will take many years of active “construction,” requiring heavy equipment and moving materials such as dirt, rick and sediment. Any staging areas, storage sites or similar places used during the remediation phase need to be included in the restoration effort and returned to their original condition.

In conclusion, we recognize that the NRRB has specific issues to address in examining the submission from the EPA Regional office, and that the input from the community is an important part of the total picture. After all, once the remediation is done and GE has left town, when EPA has removed our river from a list of contaminated sites, we will be here. We look forward to taking our grand children fishing and swimming in the Housatonic.

Sincerely,

Peter L. deFur, Ph.D.
President, Environmental Stewardship Concepts, LLC
TAG Advisor to the Housatonic River Initiative